

Catalogue - 2016

# Solutions for electrical distribution in buildings

Power and productivity
for a better world™

# Solutions for electrical distribution in buildings


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# Two volumes, one objective: to always find the best solution
# From a single catalogue with two complementary volumes: streamline to simplify, analyse to choose.

## The new catalog Solutions for electrical distribution in buildings comes into two separate but integrated volumes: one dedicated to the description and easy selection of products code and one for professionals searching for in-depth details and specifications, installation examples and special technical solutions.

### Solutions for electrical distribution in buildings
**An indispensable tool for those who are looking for easy selection of a completely reliable range of products**



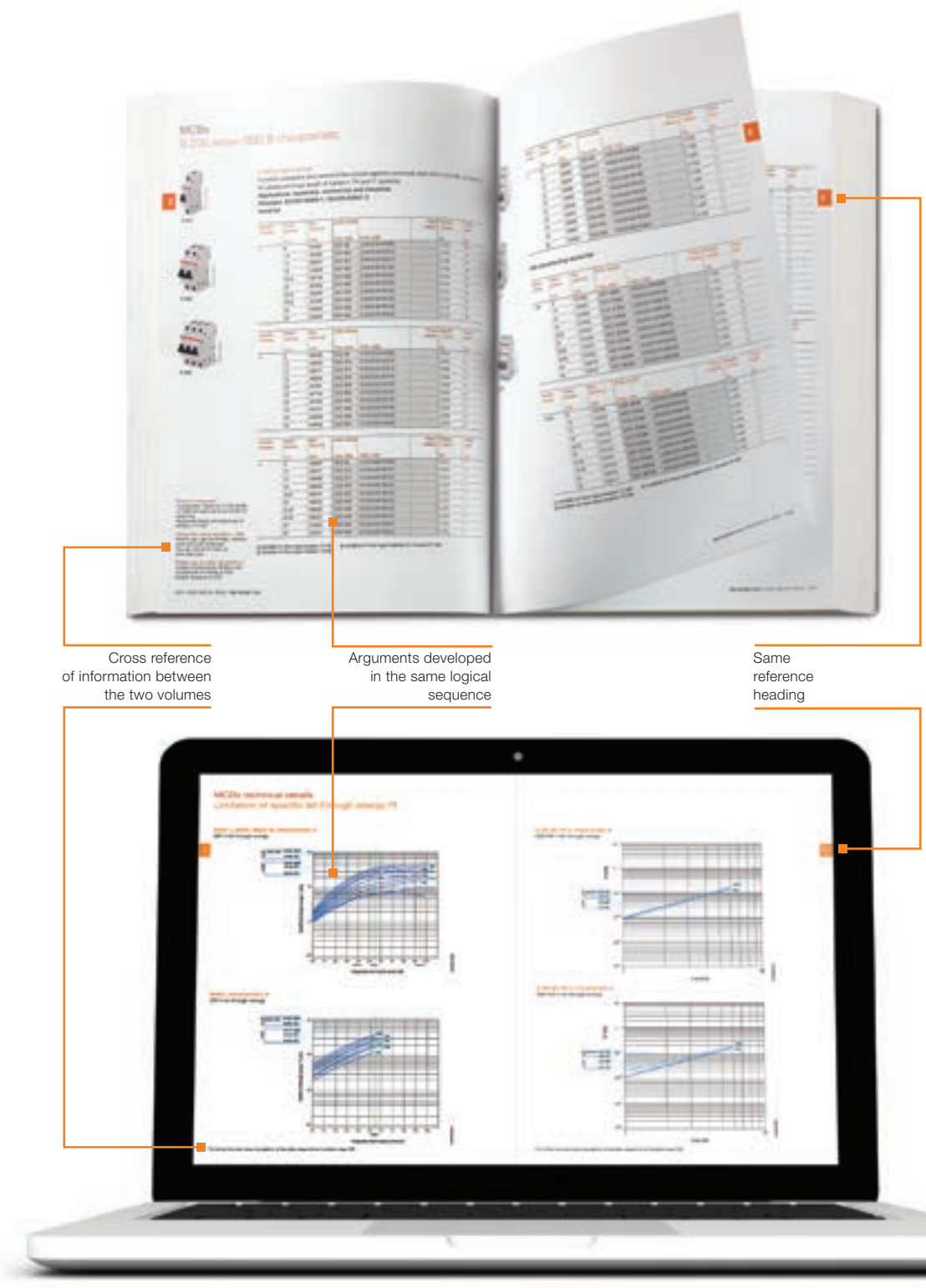

This ‘choice’ catalogue which summarizes all the technical-commercial characteristics of the products, allows one to navigate between the specifications of the System pro Solution: main characteristics, descriptions, specifications, accessories, product pictures, illustrations and other information about the individual codes leads directly to the heart of the ABB range and helps simplify something that is very complex in reality.
The cross references allow one to move immediately to the corresponding technical-applicative volume for an in-depth examination of the information indispensable for planning and implementing the systems.

### Solutions for electrical distribution in buildings - Technical details
**Technical details and information, application examples, installation solutions: the complete ABB know how at the service of professionals**

The new publication dedicated to technical-applicative details provides professionals with a series of specialized information structured to simplify the implementation of System pro Solutions from the project and system point of view. The cross references to the corresponding technical-commercial catalogue and the clear presentation of the complex specifications - such as the operating curve, selectivity tables, connection diagrams, marks and approvals - allow one to move bi-directionally from one publication to the other, arriving at small and simple passages to easily elaborate all the information on the product that is most suitable for the specific application.



Two volumes that reference each other, which are manageable and easily consultable, designed for those who wish to find the clearest solution in the least possible time.



Cross reference of information between the two volumes

Arguments developed in the same logical sequence

Same reference heading

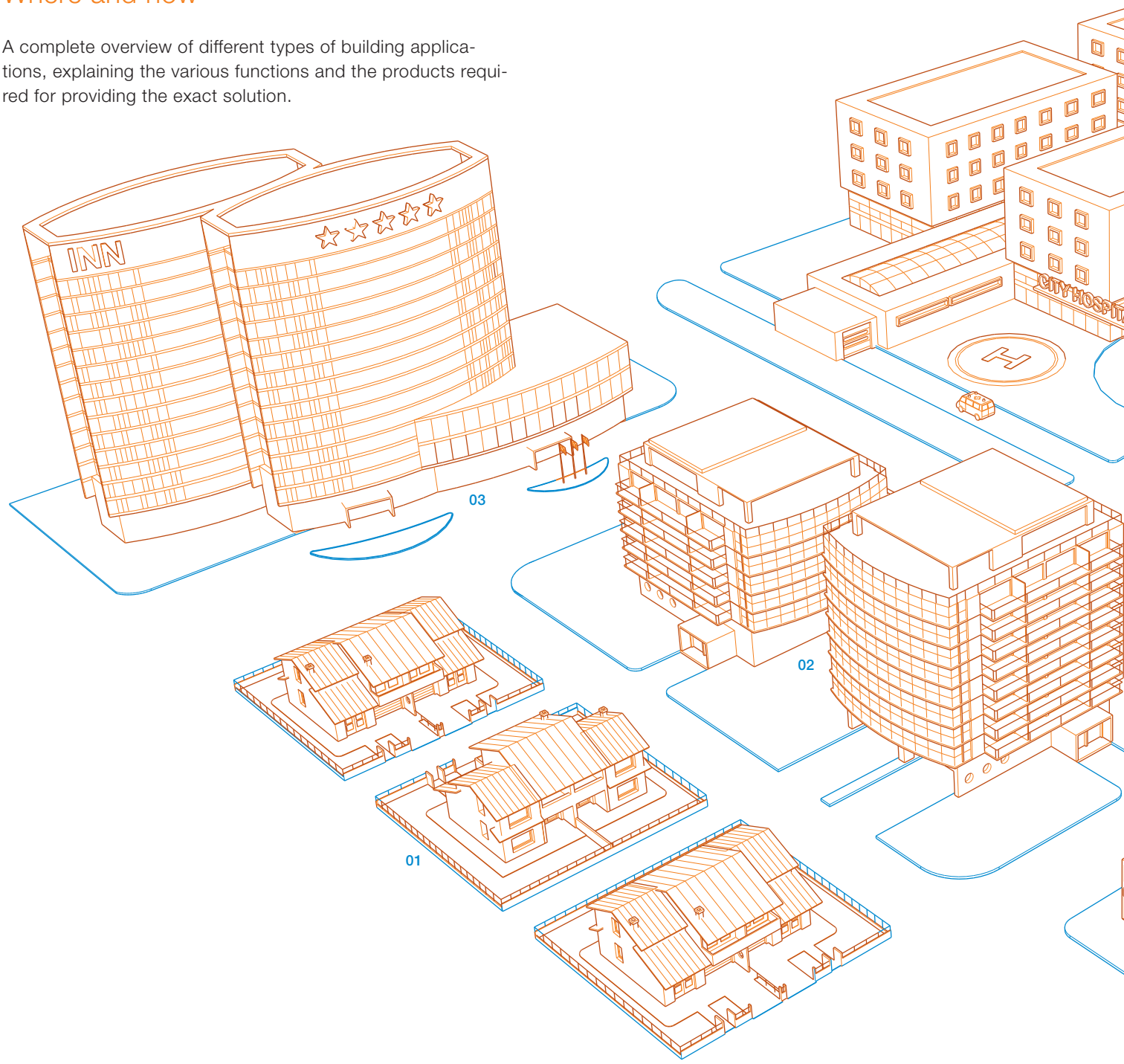
**The volume Solutions for electrical distribution in buildings can be downloaded or requested in printed form**

**The volume Solutions for electrical distribution in buildings - Technical details can be downloaded here**

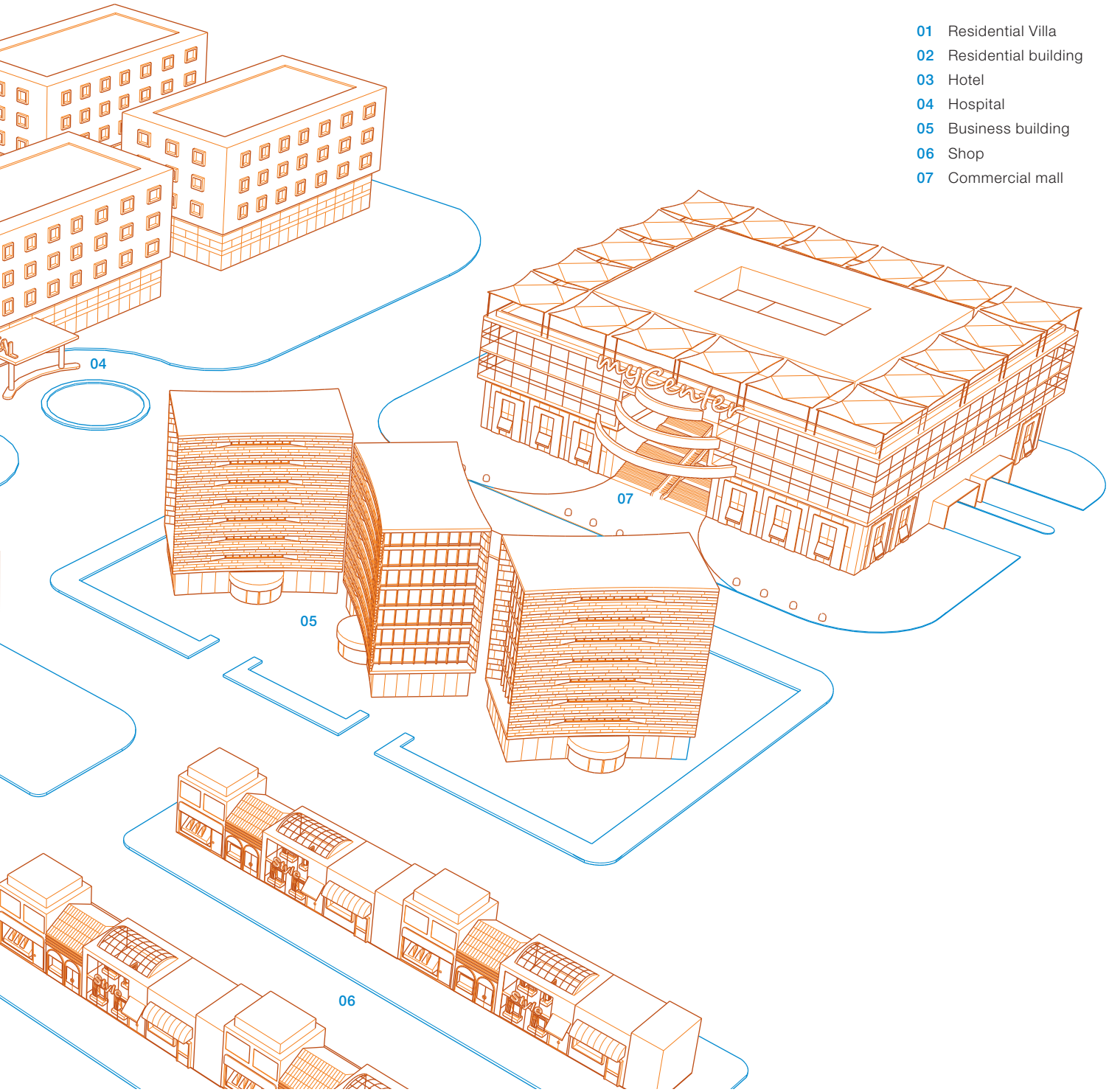
# Solutions for electrical distribution in buildings
## Many applications, many solutions

### Where and how

A complete overview of different types of building applications, explaining the various functions and the products required for providing the exact solution.



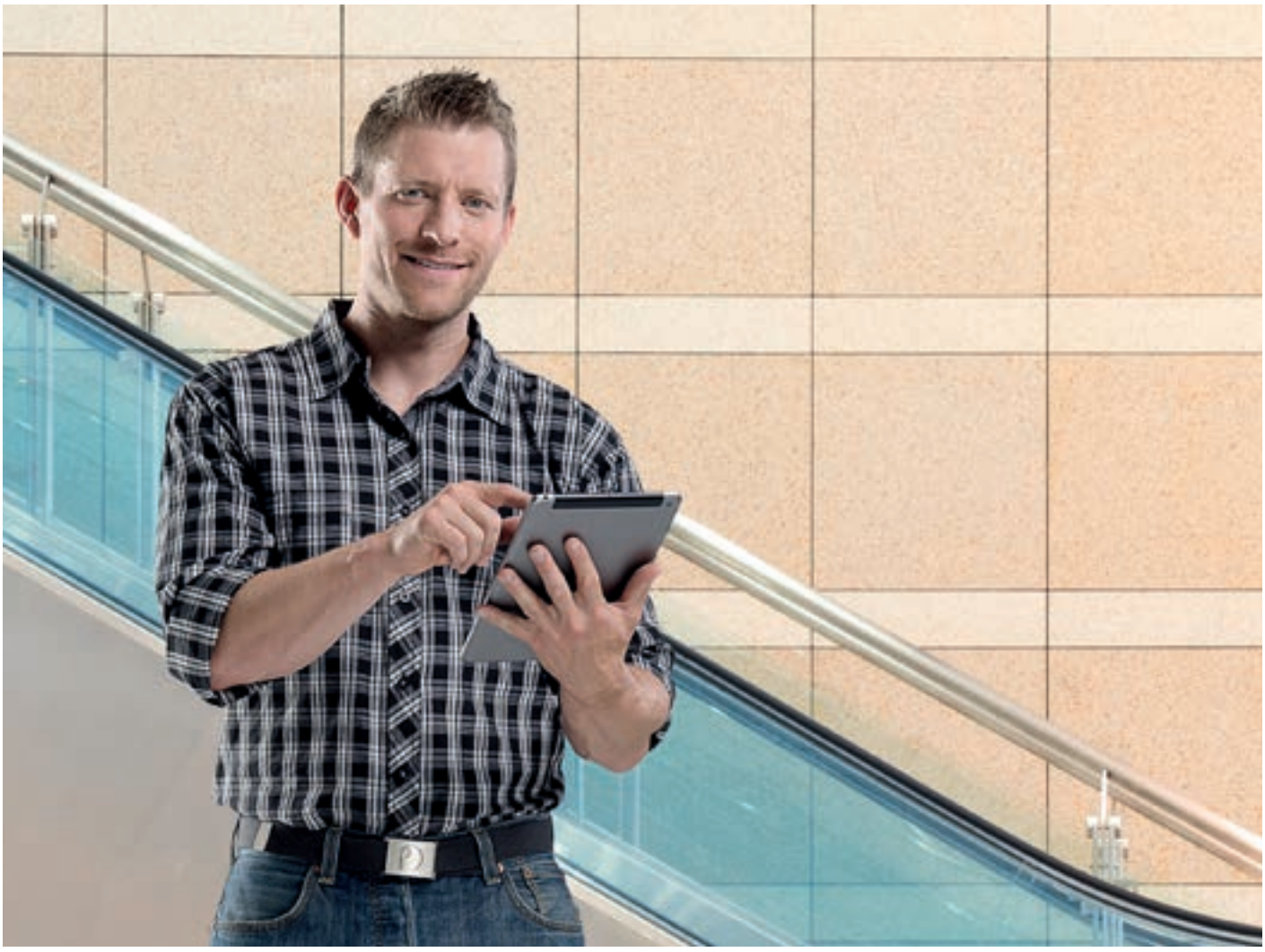

| Functions in Buildings | Selection of relevant products |
|---|---|
| **Electrical power Supply and Protection** | Miniature circuit breakers, Residual current devices, Surge protection devices, Fuse Disconnector, Fuse links, Consumer units and Sub-distribution boards, protection devices for Group 2 medical locations, |
| **Lighting Distribution and control** | Installation relays, power transformer, push button, indicating lamps, time switches, latching relays, twilight relays |
| **Lightning protection** | External Lightnining Arrester and Surge protection devices |
| **Power Distribution for critical power loads** | Plug in system with Smissline |
| **Energy management** | Measurement devices, Circuit monitoring solutions, Energy meters, Power meters. |




| Functions in Buildings | Selection of relevant products |
|---|---|
| Heating, ventilation and Air conditioning | ABB i bus KNX products- Sensors, Actuators, Front panel devices |
| Shading control | ABB i bus KNX products- Sensors, Actuators, Front panel devices |
| Security | ABB i bus KNX products- Sensors, Actuators, Front panel devices |
| Comfort | ABB i bus KNX products- Sensors, Actuators, Front panel devices |
| Load Command and control | Load Management devices, Multimeters, Electricity Meters, |
| Renewable energy production | Products for photovoltaic applications - Fuse Disconnector, PV MCB, PV Disconnector, Surge protection devices, Enclosures |

# Always up to date
## Widest choice of support

Value added services in combination with products and solutions make ABB's offer unique. With services like abb.com, catalogues, magazines, mobile apps, videos and many more, you can easily find the right products and solutions for your installation needs.










### Printed collateral

Our catalogues show the complete range for electrical distribution, featuring any product and solution from ABB.

Get updated with new trends in low voltage electrical distribution and discover new solutions for your daily business needs.

### Mobile wizards

Increase productivity everywhere, every time through easy selection of the products and understand technical information and product information at the click of a button.

### Online information

Our comprehensive online information gives you a quick and in-depth overview of all ABB products and services with a few simple clicks. From basic knowledge and packages for specific lines of business to detailed technical figures for each product, you can find everything on the Internet – easy, worldwide and 24/7.







### Professional software-tools

We offer a variety of software tools to ease and enhance the planning of your projects and the use of our products.

### Pre-sales and after-sales support

One of the most extensive global sales and service networks would be happy to help you in any situation. Providing all the help and information you need to get closer to the ABB vision of a better world through power and productivity – every day.

### Technical service

The services offered by ABB for the low and medium voltage products and systems span the entire value chain, from the moment a customer makes the first inquiry to disposal and recycling of the product. Throughout the value chain, ABB provides training, technical support and customized contracts.

# Highlights of this catalogue

This catalogue features the complete range of building electrical distribution solutions. The products, starting from Miniature Circuit Breakers, Residual Current Devices, Consumer Units, Sub Distribution Boards, Door Entry Systems, Wiring Accessories, Industrial Plug & Sockets to the Intelligent Building Solutions range are easily clustered in chapters by application to help you finding the right product.

## Introduction

On the introductory you can find the information of the different building types. Each type of building has its own specific needs and in these introduction the main function and application are presented.

**Pages 2 - 22**



## Classification of chapters

The chapters are classified according to the use and function of various products like protection and alert, comfort, energy efficiency, smart home and intelligent building control, KNX, consumer units and sub distribution and junction boxes.

**Chapter 1 to 14**



QR code
You can also find this building solutions catalogue easily on our website www.abb.com/system-pro; scan the QR code to directly access the catalogue on your smartphone

# Product overview page

In the beginning of most of the chapters, there is a product highlight section showing features and benefits of a single product family and of the product family as a system.
The product overview page gives complete information of the range at a glance and allows you to immediately and easily select the right product.

**Chapter 1 to 15**

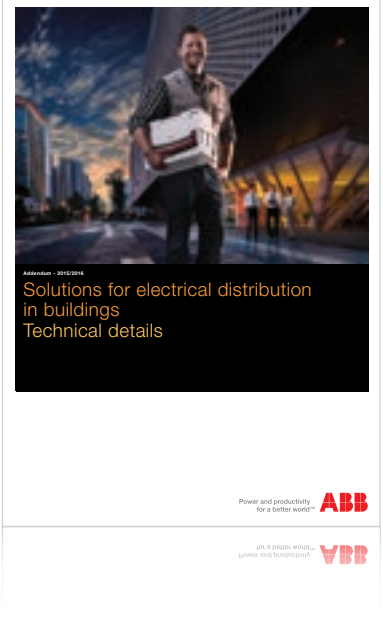


# Technical details

For the first time from ABB, we release a dedicated catalogue featuring the complete technical information of the products from the main building catalogue. With this we make it easier for you to find all the technical informations in a single place.
For the customers who are in design of electrical schemes can refer directly on the technical chapters in this catalogue and find the desired information very easily.

The chapters are oriented to match the same with the main catalog. Explanation on „how to use the catalogue“ section for ease of readers is also part of the introduction. Innovative label holder for personalizing your hard copy of the catalog is possible now.

**Frame the QR code** from your smartphones and easily access this catalogue directly on your smartphones.



# Solutions for electrical distribution in buildings
## Products introduction



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# Solutions for electrical distribution in buildings
# News

1

## The product range is growing and growing.
## New functions, new characteristics, new possibilities.

NEW



### New generation of SMISSLINE devices

For the SMISSLINE system a new generation of Miniature circuit breakers (MCB) and a new Residual current operated circuit breaker with overcurrent protection (RCBO) have been launched. The new generation brings several new features like higher rated short-circuit breaking capacity for some RCBO or a higher rated voltage for the DC MCB. The design of the new devices did not change, enabling full compatibility with existing installations.

NEW



### E 90 30/60 J

E 90 J range has been designed to comply with North American market regulations. The E 90 J fuse carriers are the ideal solution for industrial installation, motors and transformers protection, heating systems and control circuits. In accordance with the reference standard UL 4248-8, they come in voltage and current ratings up to 600V and 30/60A. The breaking capacity reaches 200 kA. They are available in 1P, 2P and 3P versions. The versions with blown fuse indicator light provide a visual signal of the fuse break condition. They can be padlocked open and sealed closed to ensure operator safety during maintenance operations.

NEW



### E 90 50/125

The new E90 50/125 range, specifically designed to provide protection against short circuits and overloads when the currents are from 50 to 125 A, are available with 1 to 4 poles (1, 1+N, 2, 3, 3+N) and provide disconnection properties according to IEC 60947-3. Their compact dimensions, the availability of all versions with optical blown fuse indicator (LED) in each pole, new quality marks and marine approval, differentiate the fuse disconnectors in the whole market.

NEW



## ABB safe&smart - The new KNX Security Panel

ABB safe&smart combines reliable alarm technology with easy-to-use KNX building system technology in a very simple way. This allows the entire system to react in cases of emergency. In normal operation, the alarm sensors are included in the ABB i-bus KNX building control system.

The core of the ABB safe&smart concept, the new KNX Security Panel GM/A 8.1, means that all current status information is available anywhere.

NEW



## System pro *E* comfort MISTRAL

MISTRAL is the ABB's series of consumer units where versatility and performances are combined with an elegant design. Designed to reduce cabling times as well as allow the total integration of several kind of devices for DIN-rail and also devices to be installed on mounting plate or on blind front panels. The wide range of sizes and versions, makes MISTRAL the most complete ranges of consumer units that allow to complete the ABB's offer for protection, control and monitoring.
Today the MISTRAL platform gets wider thanks to new versions with opaque door and N/PE terminals block.

NEW



## Modular wall-mounting and floor-standing cabinets, TwinLine S 43

With the new TwinLine S 43 system, ABB offers a tailored and future-proof concept of modular wall-mounting and floor-standing cabinets. This fully comprehensive product range includes two cabinet types TwinLine-G (depth of 225 mm) and TwinLine-L (depth of 275 mm) and provides a solution for every application.

All cabinets are designed according to IEC 61439. The modular system is simple in planning, quick in assembly and safe in application.
Highlights such as the innovative flange technology, optimal accessibility, ease of cabinet connection, the modular plinth concept and a flexible assembly of the new internal configuration, guarantee a modern energy distribution.

# Solutions for electrical distribution in buildings
## A world of advantages

1

### Residential, tertiary and industrial sector

Our extensive range of modular DIN Rail components, with protection, command, control and measurement functions, is perfect for meeting all the current requirements of electrical installations, in residential, tertiary and industrial sector. The wide range of metallic and plastic enclosures complete the ABB offer.



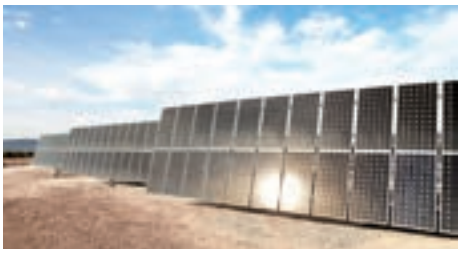
### Railways

The breadth of our product portfolio has allowed us to become leader in the railway sector. This is thanks to the high-performance S200M-UC AC and DC circuit breaker, as well as the S200MT series, particularly suitable for conditions of fire and smoke, in compliance with the French NF F 16-101/102 standard.



### Solutions for solar energy

At ABB we provide products specifically designed for protection and operation of AC and DC circuits in solar power plants. These include circuit breakers and switch disconnectors such as S800PV up to 1,200 V DC, E90PV fuseholders, E9F PV fuses, OVR-PV surge protective devices, etc.
They can be perfectly housed inside enclosures suitable for outdoors and PV installation, such the GEMINI switchboards.
ABB offers also PV combiners „ready-to-install“ and designed for various number of strings with or without monitoring system.



## Wind power

The outstanding performance of our high voltages devices and our constant innovation have allowed us to become world leader in electrical switchgear for wind-energy sector. The high performance of our S800 circuit breaker series, characterized by the high breaking capacity of 690 V AC, and their combination with the new S800-SCL-SR self-resetting short-circuit current limiter make our range of modular DIN Rail components perfect for the needs of the sector.



## Critical Power/Data Centres

In electrical installations such as data centres, banks, hospitals and airports where service continuity is critical, a system that allows the switchgear to connect and disconnect voltages in a totally safe manner is required. The SMISSLINE Touch Proof pluggable socket system ensures an installation safe, flexible and without interruptions.



## UL/CSA standards for US and Canada

In order to meet international certification requirements, our modular DIN Rail product portfolio is compliant with a large number of standards from all over the world, with the highly sought-after UL certification met by the S200U, S200UP and S800U circuit breakers and the F200 residual current devices. Furthermore the portfolio is widened by the metallic SR2 switchboard and now, by the new thermoplastic switchboard GEMINI UL.



# Solutions for electrical distribution in buildings
## A world of advantages



## Miniature circuit-breakers

### 1 S200 Series

Circuit breakers up to 63 A
S200, S200M and S200P:
For residential, commercial and industrial use up to 25 kA.
S200U, S200UP and SU-200PR with certification acc. to: Certification UL489/CSA 22.2 No. 5 (US and Canada).

### 3 S800 Series

S800 circuit breakers with high breaking capacity up to 125A
S800B : 16 kA breaking capacity.
S800C : 25 kA breaking capacity.
S800N : 36 kA breaking capacity.
S800S : 50 kA breaking capacity.

### 2 SN201 Series

SN201 series circuit breakers including one pole and neutral in one module width up to 40A specific for household applications and tertiary sector.

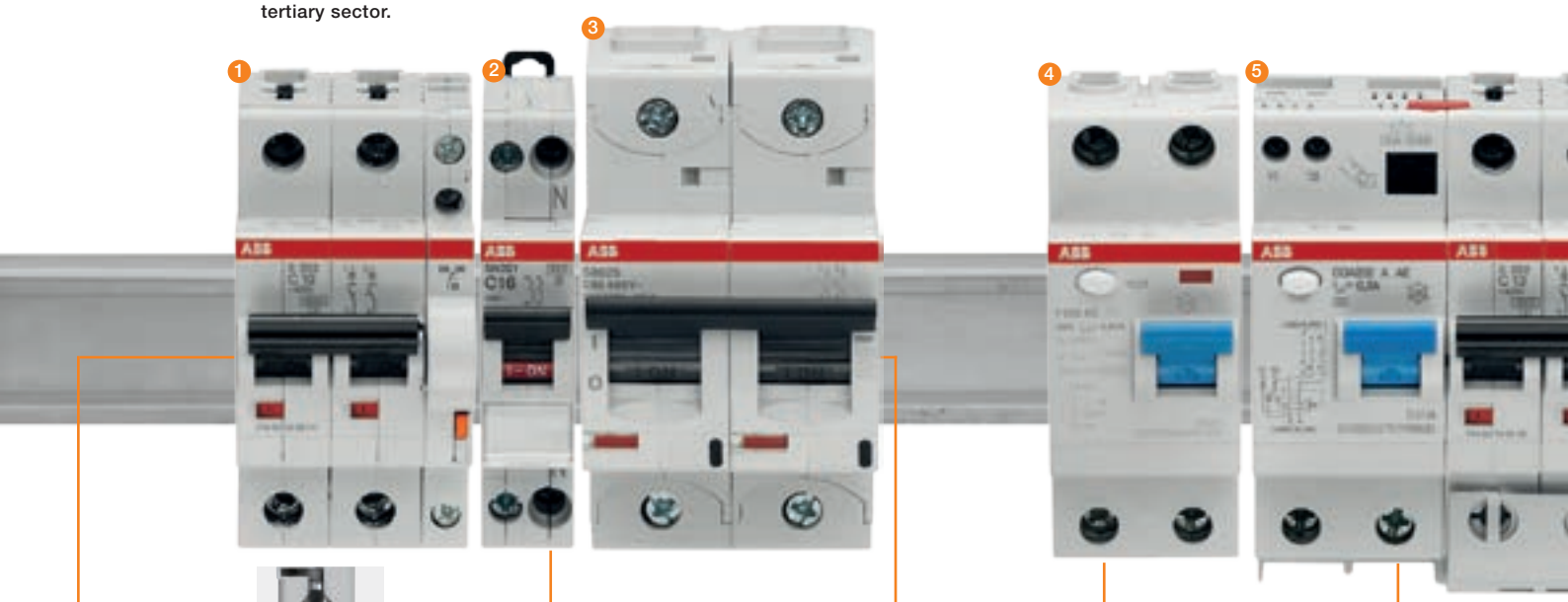
## Residual current protection

### 4 F200 Series

Residual current devices up to 125 A
F200: Residential, tertiary and industrial.

### 5 DDA200 and DDA800 Series

RCD blocks adaptable to the S200 and S800 circuit-breaker series up to 63A and 100A respectively.






Increased terminal opening for higher wire gauges up to 35mm².
For conductors with or without connector sleeves.
Fulfills still the requirements for protection degree IP20 (finger safe) acc. to IEC/EN 60529.
Integrated plate protecting flexible cables from damage and homogenous pressure in the terminal opening.



Switch with intermediate trip position (TRIP).
S800 circuit breakers differentiate manual actuation from over-current trip.



Terminal on the front face for fail-safe function.





Multiple certification marks visible on the upper and lower face of the S200 circuit breakers.
Laser marking for reliable readability.
Real contact position indication, directly connected to the moving contact, for more comfort and safety. Individual identification code for each MCB on the front.



Label-holder built into SN200 circuit breakers.
Easy identification of protected circuits.
One pole plus neutral in a width of just 17.6 mm.



The green/red switch colour clearly indicates the connected/disconnected status.



Failsafe bi-directional cylinder-lift terminal at top and bottom (available for the entire System pro *M* compact® range). Ideal for connection of cables and busbars simultaneously.

# Other protection devices

### 6 DS200 Series

Overcurrent and residual current protection in a single device, just two modules width.
Suitable for residential, tertiary and industrial applications.

### 7 RD3 residual current relays

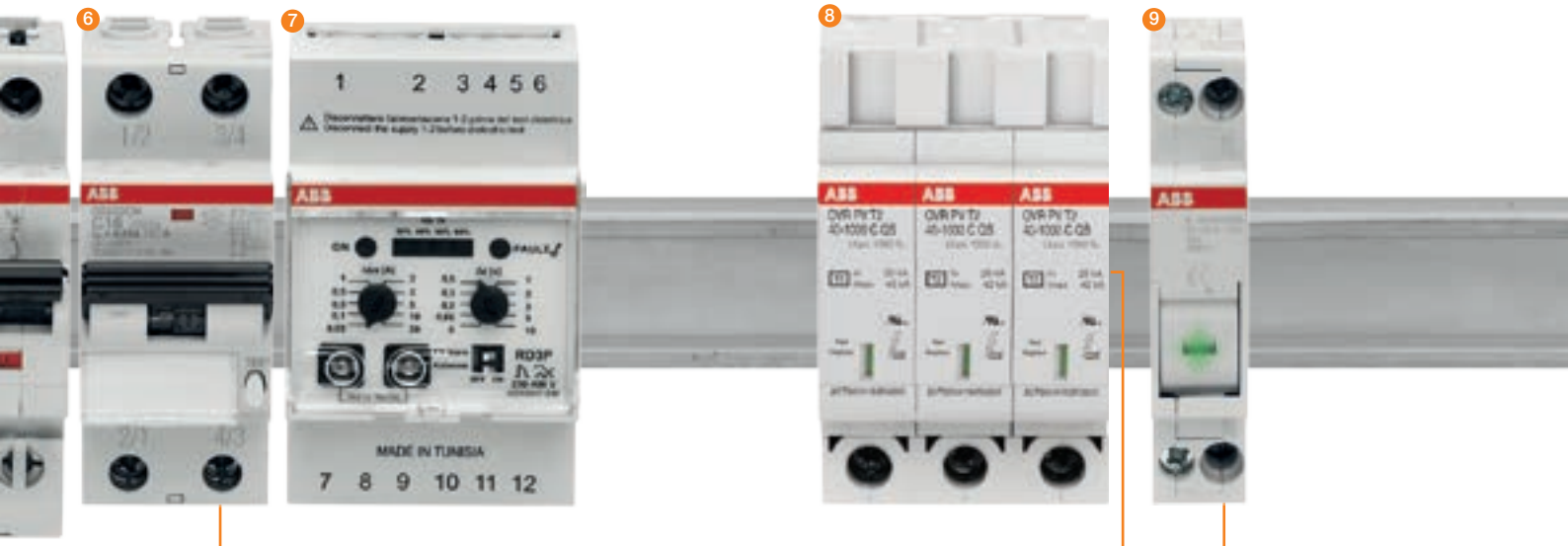
Residual current relays with the possibility to set sensitivity and intervention time.
Ideal to obtain time and sensitivity combinations and to achieve selectivity with other residual current devices.

### 8 OVR series surge protective devices

Protection of electrical equipment against surges caused by lightning or other grid disruptions.

### 9 E90 fuseholders and fuse disconnectors

E90: Disconnector series up to 32A.
E90h: Compact series up to 32A.
E90 50/125: Series up to 125A.






Displays the cause of the trip of the DS200 residual current breaker.
Blue (residual currentl trip) or black (over-current trip indications).




Includes RFID label.
Prevents forgeries through the inclusion of a serial number in compliance with the ISO/IEC FCD 15693-3 standard.



Contact position indicator visible on the front of the DS200 residual current breaker.



Visual indicator of the remaining life of the OVR surge protective device.
Option to include remote signalling contacts of the OVR status.



Blown fuse indicator light on the front part of the E90 fuseholder.

1

# Command and control

### 10 Contactors, latching relays and installation relays

ESB and EN series contactors.
E259 series installation relays.
E250 and E260 series latching relays.

### 11 Switch disconnectors

E200 series
switch disconnectors
From 1 to 4 poles.
Up to 125 A.

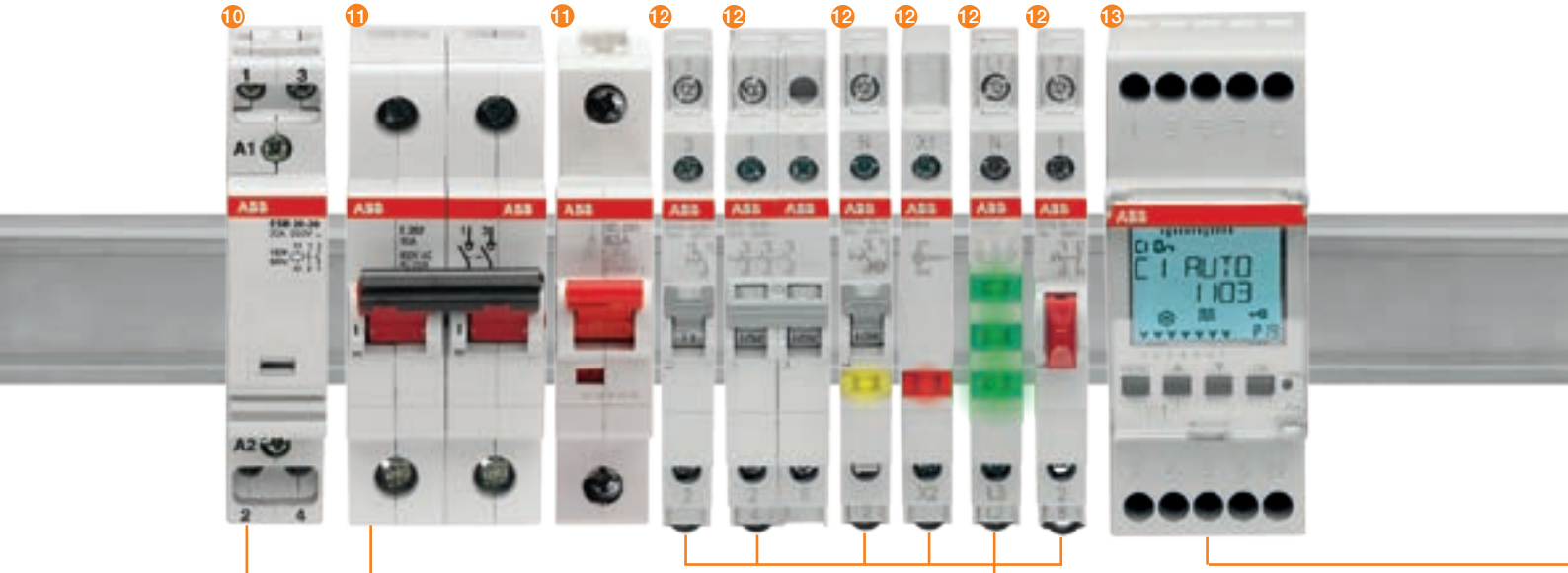
SD200 switch disconnectors
From 1 to 4 poles.
Up to 63 A.
Fully compatible with MCB accessories.

### 12 E210 series on-off switches, push buttons and indicator lamps

E211 and E218 series on-off switches.
E213 series change over switches.
E214 series group switches.
E215 and E217 series push buttons.
E219 series single, double and triple indicator lights.

### 13 D-Line digital and AT analogue time switches

D1 and D2 weekly digital time switches.
D365 yearly digital time switches.
AT analogue time switches.




Currents up to 125A.
From 1 to 4 poles.
Option to include an add-on of up to 3 auxiliary contacts.

Multiple command and control functions in the ultra-compact design (9mm width) of the E210 series.

Extremely quiet.
Variety of control voltages.
Multiple combinations of NO and NC contacts.
Function modes selector:
Automatic/Manual/Disconnected (EN series).



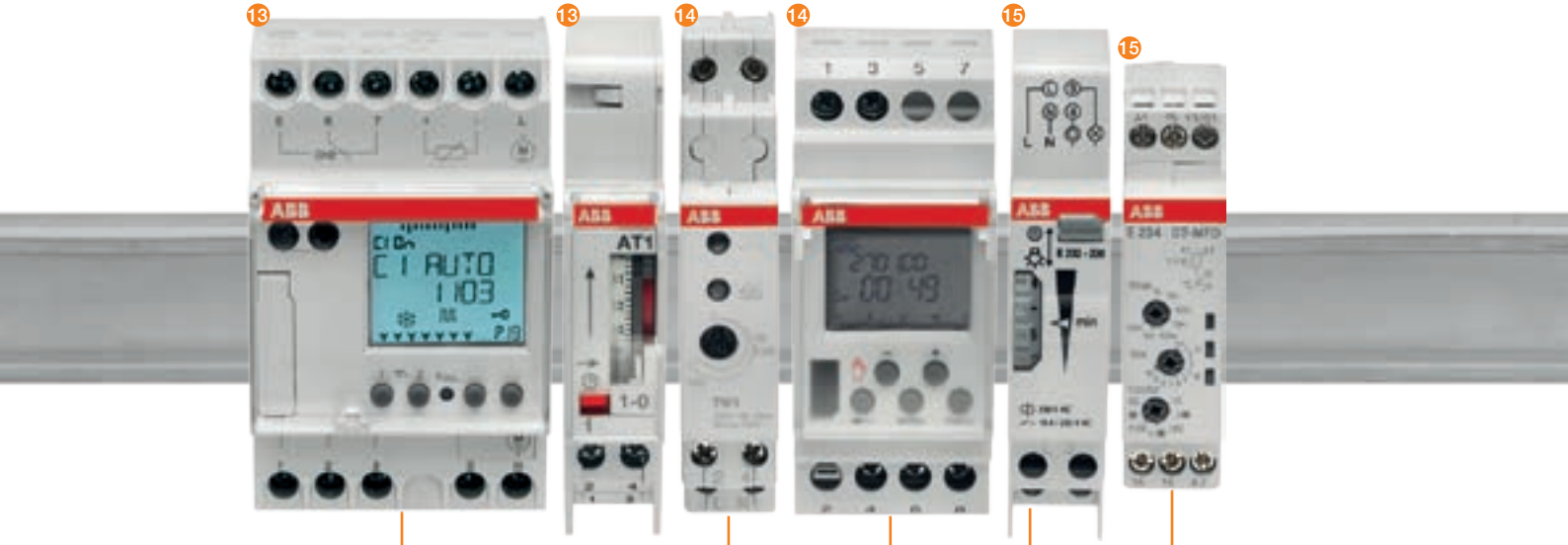
Up to 3 E219 LED indicator lights in a width of just 9 mm. LED indicators guarantee an optimal illumination with very low consumption.

### 14 TWA astronomical switches and TW twilight switches

TWA astronomical switches to activate lighting systems according to the rising and setting of the sun.
TW twilight switches to control lighting devices according to the level of the ambient light.

### 15 E234 series electronic timers and E232 series staircase switches

Wide range of E234.
E232 staircase timers for household applications.




D-Line series weekly and annual digital time switches.
Multiple communication options.
Wide range of programs: standard, cyclic, casual and holiday.
White backlit LCD display.

Connection and disconnection time delays.
Continuous and impulse signals among multiple options.

Easy to program.
Ideal for public lighting, stores lighting, monuments, etc.

1

# Measurement

### 16 EQ digital electricity meters

C series, extremely compact meters.
B series, compact with communication features.
A series, functionality beyond comparison.
Functionalities associated to a “metal scale” assigned to each model (steel, bronze, silver, gold and platinum).

### 17 Digital and analogue measuring instruments

AMTD and AMT ammeters.
VLMD and VLM voltmeters.
FRZ frequency meters.
DMTME multimeters.
E233 and HTM hour counters.
Current and voltage transformers.




Single-phase and three-phase metering.
Direct reading up to 80A or indirect reading through current and/or voltage transformers.
High precision with an accuracy class up to 0.5 S.
Reading of generated/consumed and active/reactive energy.
Up to four tariffs.
Up to eight channels of load profiles.
Previous values for several quantities.
Possibility of built-in serial communication interfaces, Modbus and M-Bus.
Connect up to 32 meters to Ethernet gateway, JSON protocol, including inbuilt webserver.Possibility of internal clock for advanced functionalities.

C11 single-phase digital electricity meter with ultra-compact design just one module wide.
C13 three-phase digital meter with ultra-compact design just three modules wide.
Both unique on the market.

# Other functions

### ⑱ Extensive range of other modular devices

Modular sockets.
Light dimmers.
Priority switches and overload relays.
Control, isolating and safety transformers.
etc.




The range includes products complying with the most widespread standards (German, Italian, French...).
Safety shutters and optional cover.

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# Intelligent Building Solutions

## ABB i-bus® KNX

**ABB i-bus® KNX is the intelligent building solution that meets the highest requirements for applications in modern home and building control. It is based on the simple, yet proven KNX technology which is accepted as the world's first open standard for the control of all types of intelligent buildings - industrial, commercial or residential.**





**ABB i-bus® KNX offers a complete product range for automation and control in today's modern buildings:**

- Lighting control and regulation
- Heating, ventilation, cooling
- Blinds and shutter control
- Security and monitoring
- Energy and load management
- Visualization and operation
- Central automation and control
- Remote control / maintenance

# Consumer units

## Mistral

The new MISTRAL® series of consumer units offers ample internal space and high flexibility in term of possible internal configurations, making your job quicker and easier. Flush-fit and wall-mounted versions offer elegant design.
And with IP41 and IP65 ratings, you can install the units in any kind of environment of residential and commercial building

## UK500

UK500 is the range of flush-mounting consumer units that, thanks to the several internal configurations and to a wide choice of doors, accessories and finishing, is able to fulfill any decorative requirements. Furthermore starting out from the flush mounting base version, UK500 series consumer units can be installed on surface, as well as semirecessed mounting or in hollow wall, simply by means of accessories.





The new MISTRAL® series come in three versions:

System pro *E* comfort MISTRAL41F
Elegant flush-mounting consumer unit that includes an elegant and thin frontal cover, ample internal space and unique features such as the innovative cable entry flanges.

System pro *E* comfort MISTRAL41W
IP41 rated consumer unit for wall mounting installation, conceived to be installed in commercial buildings, but extremely versatile thanks to the smart features and to a perfect balance between internal space and overall dimensions.

System pro *E* comfort MISTRAL65
IP65 rated consumer unit designed for harsh environments, where high performances are required.

# Solutions for electrical distribution in buildings
# A world of advantages

1

## Sub distribution boards

### TwinLine wall-mounting and floor-standing cabinets

With the TwinLine system, STRIEBEL & JOHN has set another milestone in the field of modern power distribution. TwinLine has been tested according to IEC 61439, DIN EN 61439-1/-2/-3.
Continuity is the guiding principle for these new wall-mounting and floor-standing cabinets for distribution board assembly – from their different degrees of protection and their ease of installation to a portfolio which can meet all requirements in the field.

The benefits: comprehensive product selection, high quality, quick and easy internal configuration. A simplified accessories concept guarantees full flexibility while reducing inventory levels. Are you looking for a modern, user-optimised and future-proof cabinet for distribution board assembly? Then you will surely find it with TwinLine.
System intelligence comes standard with the new wall-mounting and floor-standing cabinets because in combination with CombiLine modules, TwinLine offers you unlimited possibilities for the internal configuration.

### Compact distribution boards

The compact distribution boards, which have been developed in close cooperation with technicians from the field, stand out by total solutions. Flexibility and speed will support the users in their daily tasks.

Be it for commercial, industrial or domestic uses - this broad range of products offers a solution to any type of mounting - from flush-mounting and wall-mounting up to hollow-wall mounting applications. All enclosures are double insulated. An earthing set is available as accessory. Depending on the version, degrees of protection between IP31 and IP43 are available.





## TwinLine N 55

**TwinLine the welded wall-mounting and floor-standing cabinets IP55**

The TwinLine N 55 system is a fully comprehensive welded product range, available in both protection classes and three cabinet depths, and all with the high IP55 degree of protection.
Continuity is the guiding principle for these new wall-mounting and floor-standing cabinets for distribution board assembly – from their high degree of protection and their ease of installation to a portfolio which can meet all requirements in the field.



## TwinLine S 43

**The complete modular cabinet system in all sizes**

With the new TwinLine S 43 system, ABB offers a tailored and future-proof concept of modular wall-mounting and floor-standing cabinets. This fully comprehensive product range includes two cabinet types TwinLine-G (depth of 225 mm) and TwinLine-L (depth of 275 mm) and provides a solution for every application.



# A brief introduction to System pro *M* compact®

1

## A wide product range suitable for all applications

For all applications in residential, industrial and commercial installations ABB System pro *M* compact® range offers many functionalities like:

– protection and switching
– checking and monitoring
– control and programming

Moreover, shape and dimensions of the devices allow a perfect integration in existing installations.
The technologically innovative bidirectional cylinder-lift terminal available in the System pro *M* compact® devices enables synchronous closing of the front and rear wiring input.
Highest safety standard for the installer thanks to protection against electric shock according to EN 41140.
Marking of devices is reliable and clear.
Both supply and connection with busbars from top or bottom is admitted.

## The System pro *M* compact® range

### MCBs

Miniature circuit-breakers.

### RCDs

– Residual current circuit-breakers (RCCBs);
– RCD-blocks;
– Residual current circuit-breakers with overcurrent protection (RCBOs);
– Residual current relays (modular and front panel) with external toroid.

### Auxiliary elements

A whole range of accessories and auxiliary elements.

### SPDs

Surge protective devices.

### Protection devices

In addition to MCBs and RCDs, ABB supplies other modular devices for protection such as fuse holders, fuses, switch disconnectors, insulation monitoring devices etc.

### Command devices

This category includes devices that are operated manually to command the electric system: contactors, latching relays, switch-isolators, switches, push-buttons etc. Typically they are installed to control lights from several points of the same circuit or to pilot user devices with a high number of operations.

### Load management devices

Overload relays, load management switches, anti black-out lamps, time switches and the other modular devices in this category react automatically to variations of parameters and other events in the system to allow for plant optimisation.

### Measurement devices

Energy meters, network analyzers, multimeters, current measurement system are all found in this category of devices to provide different measurement data from used energy to network quality of the electric system.

### Other devices

The System pro *M* compact® range also includes bells, transformers, modular sockets etc.

### Various accessories





You can find System pro *M* compact® order details in chapter 2

# A brief introduction to System pro *M* compact®

1

## The System pro *M* compact® range offers enormous advantages in relation to installation.

Advanced and smart solutions allow a far easier and safer installation and guarantee time saving.



MCBs are also available with an integrated auxiliary contact (1 NO or 1 NC). Existing installations can be easily upgraded to include auxiliary switch functionality.



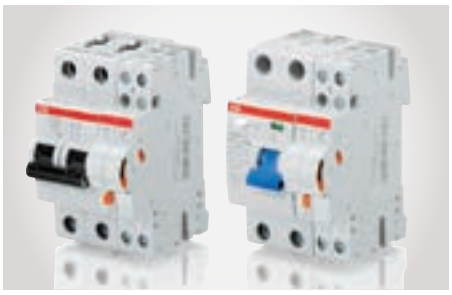
RCD-blocks DDA 200 2P, 3P, 4P up to 40 A fit into two modules. Versions in 63 A sizes are supplied with two additional terminals for remote tripping.



Safety connections between DDA 200 and S 200 thanks to a safe plastic key system.



Availability of a wide range of RCBOs.



Universal signal/auxiliary and auxiliary contacts fit on S 200, F 200 and DS 200.




All printings of the S 200 and S 200 M MCBs, like the approvals on the dome and the product identification, are printed by a laser. This ensures a friction, scratch and solvent resistant marking on the MCBs.

The bi-directional cylinder-lift terminal allows easier and quicker connections. In addition it avoids errors because it prevents the use of free cable seats.

This high protection level against errors eliminates right from the start industrial accidents deriving from incorrect wiring.

The terminal guarantees a very high tightening torque for cables with a section up to 25 $mm^2$.

The housing of connection busbars in the rear seat guarantees easier wiring.



Safe terminal technology: IP20 - finger safe terminals designed for sophisticated industrial use.



Error proof terminals: they avoid the use of free cable seats and offer protection from misconnection.



Supply from top or bottom also possible with busbars.



Without busbars two terminal spaces can be used for cables with different cross sections: incoming supply with supplementary terminal up to 50 $mm^2$ from the front side.



Special quick fastening for an easy removal of the devices from the assembly pressing upwards, both for MCBs S 200 and RCCBs F 200: the only in the market that can be removed without a screwdriver.



More working space between component rows.

# A brief introduction to...
# ABB i-bus® KNX

1

**In many areas of our private and working lives, the increasing level of automation is a trend that confronts us on a daily basis without actually being noticed.**

Automation in buildings aims to combine individual room functions with one another and to simplify the implementation of individual customer preferences.

KNX is the logical development for implementing traditional and new requirements in electrical building installations and thus replacing conventional installation techniques.

The intelligent installation bus system efficiently performs the conventional functions and offers an additional broad range of expanded features, which could not be realized without a bus system.

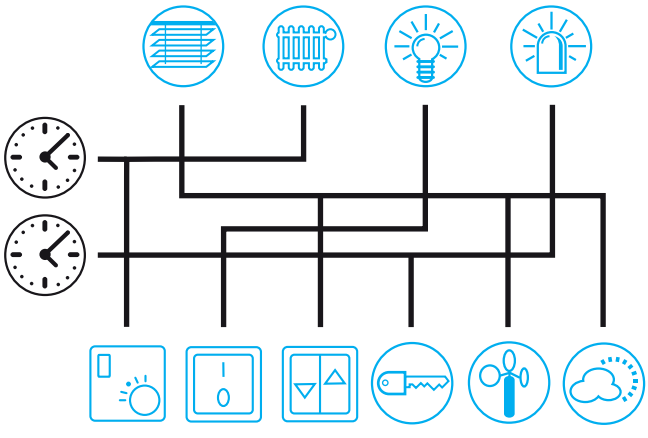
ABB offers consultants, system integrators and electrical installers a comprehensive product range with ABB i-bus® KNX, in order to meet the challenges posed to electrical building installations both today and in the future.

Further information:
http://www.abb.com/knx

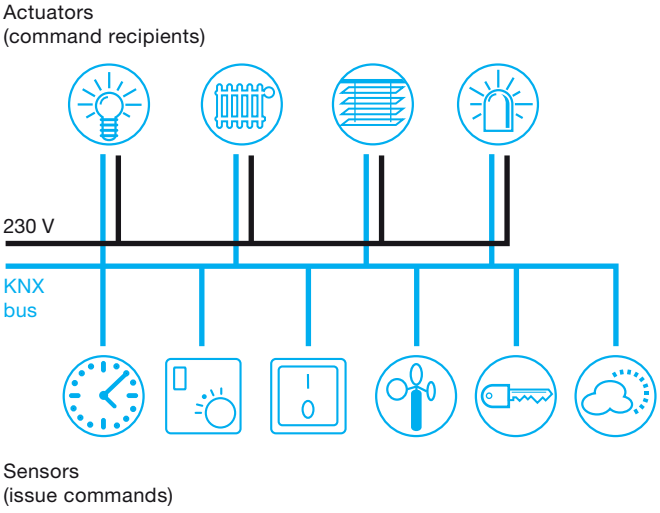
**Intelligent Building Solutions with ABB i-bus® KNX ensure:**

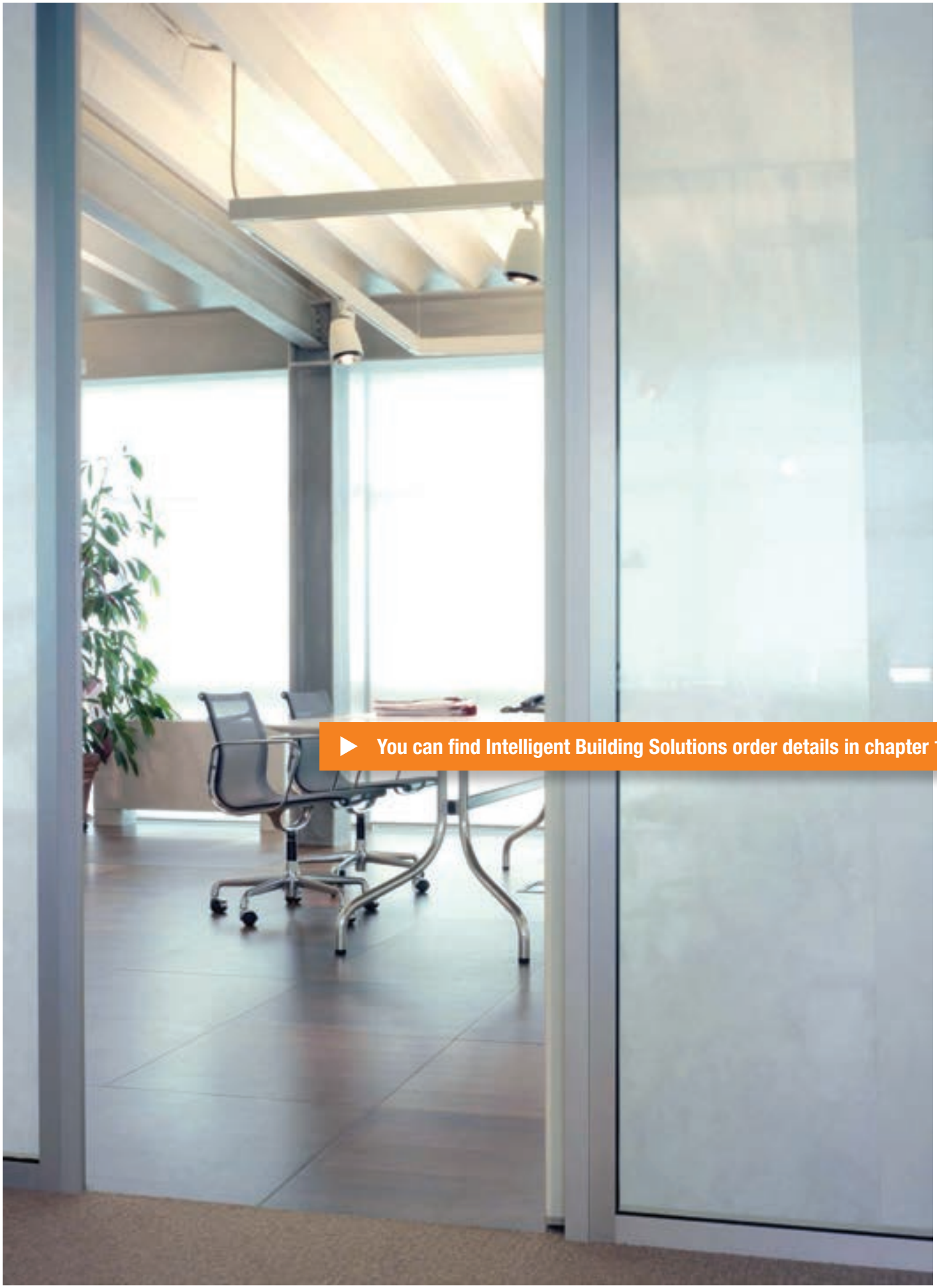
- The right light in every situation by switching, dimming and controlling lights
- Visual protection and protection against sunlight by drive control of rolling shutters and blinds
- The right room temperature in every room by heating and cooling control
- The right air quality by controlling ventilation and climatization
- Automatic functions controlled by timer, movement, presence or meteorological data
- Security by monitoring operating conditions, signaling technical faults, recognizing hazards and triggering alarms
- Everything under control by visualization and manual operation

**The conventional solution: Many separate cables, separate functionality, little flexibility**



**The intelligent solution: KNX – a system, a standard, many interoperable functions for maximum flexibility**





▶ You can find Intelligent Building Solutions order details in chapter 10

# A brief introduction to...
# Enclosures, Consumer units

1

**ABB offers a wide range of consumer units for the installation of modular components**
The portfolio enables to implement any type of application for electrical distribution in residential and non-residential environments according to highest safety conditions and international regulations.

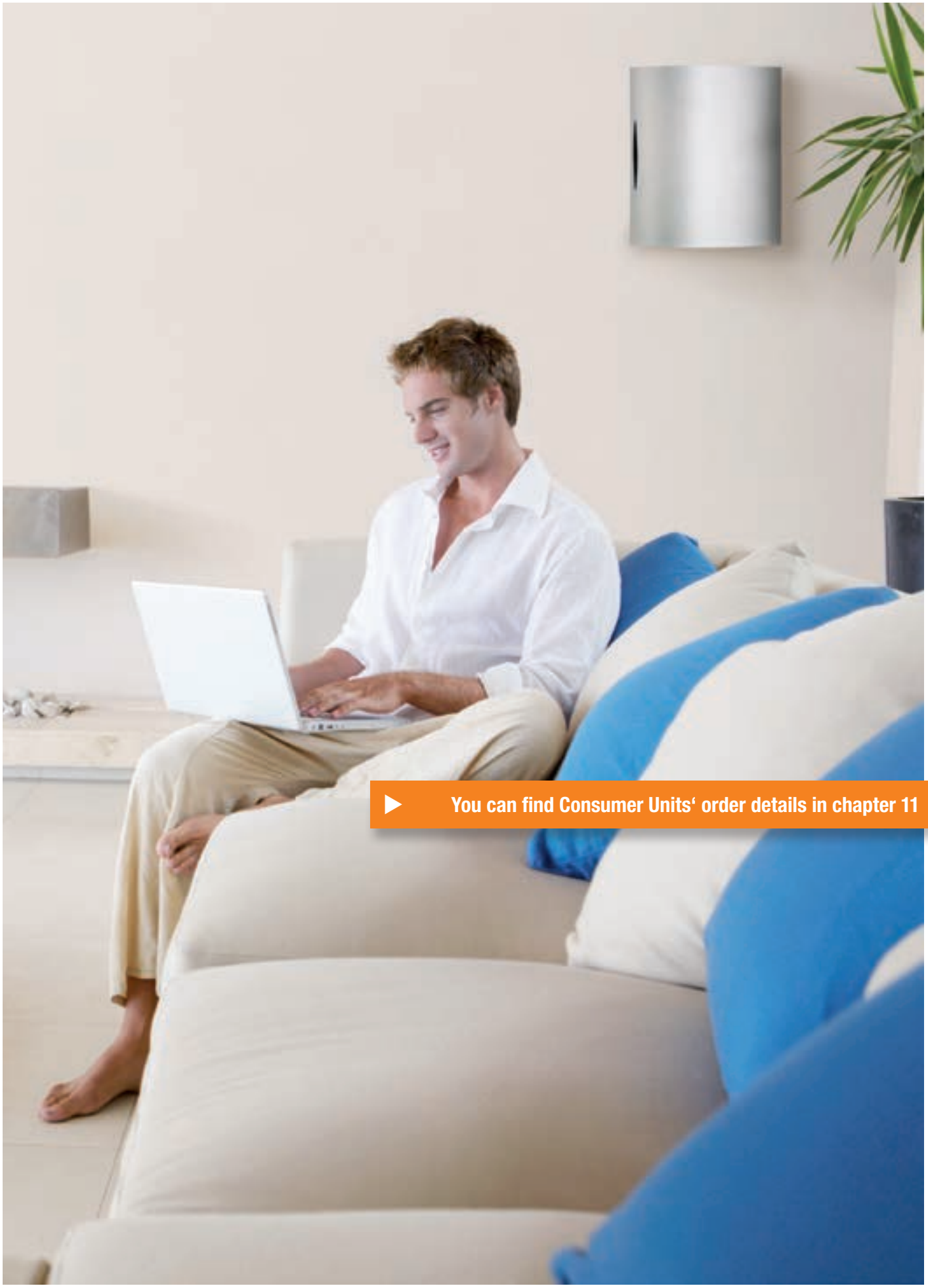
The new **System pro *E* comfort MISTRAL®** series of consumer units gives you the freedom and flexibility to install almost any kind of electrical distribution system in commercial or residential environments. These innovative units have been designed from scratch to enhance the unique features you expect from ABB in terms of versatility, efficiency and safety.

Ample internal space, door completely reversible and with opening up to 180°, higher mechanical resistance and a modern and family-feeling look, are just some of the many improvements introduced with the new System pro *E* comfort MISTRAL.

The **UK500 Series** sets a new aesthetical standard. The flush-mounting consumer unit offers a range of different designs which covers all customer's needs of elegance. The UK500 Series is an ideal combination of engineering and design, offering quick and flexible installation. The wall box is non-warp, non-breakable and non-flammable. It offers a large wiring space. The installation process is simple, quick and well thought-out. Various types of doors adapt all furnishing styles, from classic to modern as well as for multi-media applications.

Whether for high-end residential or for tertiary sectors, the range of the **AT/U Series** offers a solution for every application. Specially designed accessories and spare parts guarantee that the AT/U Series will be a flexible and reliable partner for various applications – for flush-mounting as well as for wall-mounting or for hollow-wall-mounting. ABB provides with the AT/U compact distribution boards one complete solution for all electrical installation requirements in your home and makes the work easier for the electrical contractor.





You can find Consumer Units‘ order details in chapter 11

# A brief introduction to...
# Enclosures, Sub distribution boards

1

## System pro *E* energy
## Sub Distribution Boards

**Compact distribution boards**

The compact distribution boards, which have been developed in close cooperation with technicians from the field, stand out by the total solutions. Flexibility and speed will support the users in their daily tasks.

Be it for commercial, industrial or domestic uses - this broad range of products offers a solution to any type of mounting - from flush-mounting and wall-mounting up to hollow-wall mounting applications. All enclosures are double insulated.

An earthing set is available as accessory. Depending on the version, degrees of protection between IP31 and IP43 are available.

Also available as Mediaboards.

**Tidy and flexible installation**

The N/PE Quick-terminals simplify your work: Just choose the right terminal blocks and plug them in.

Extremely flexible in terms of expandability, these N/PE Quickterminals are unmatched for safe, efficient and future-oriented conductor connections.

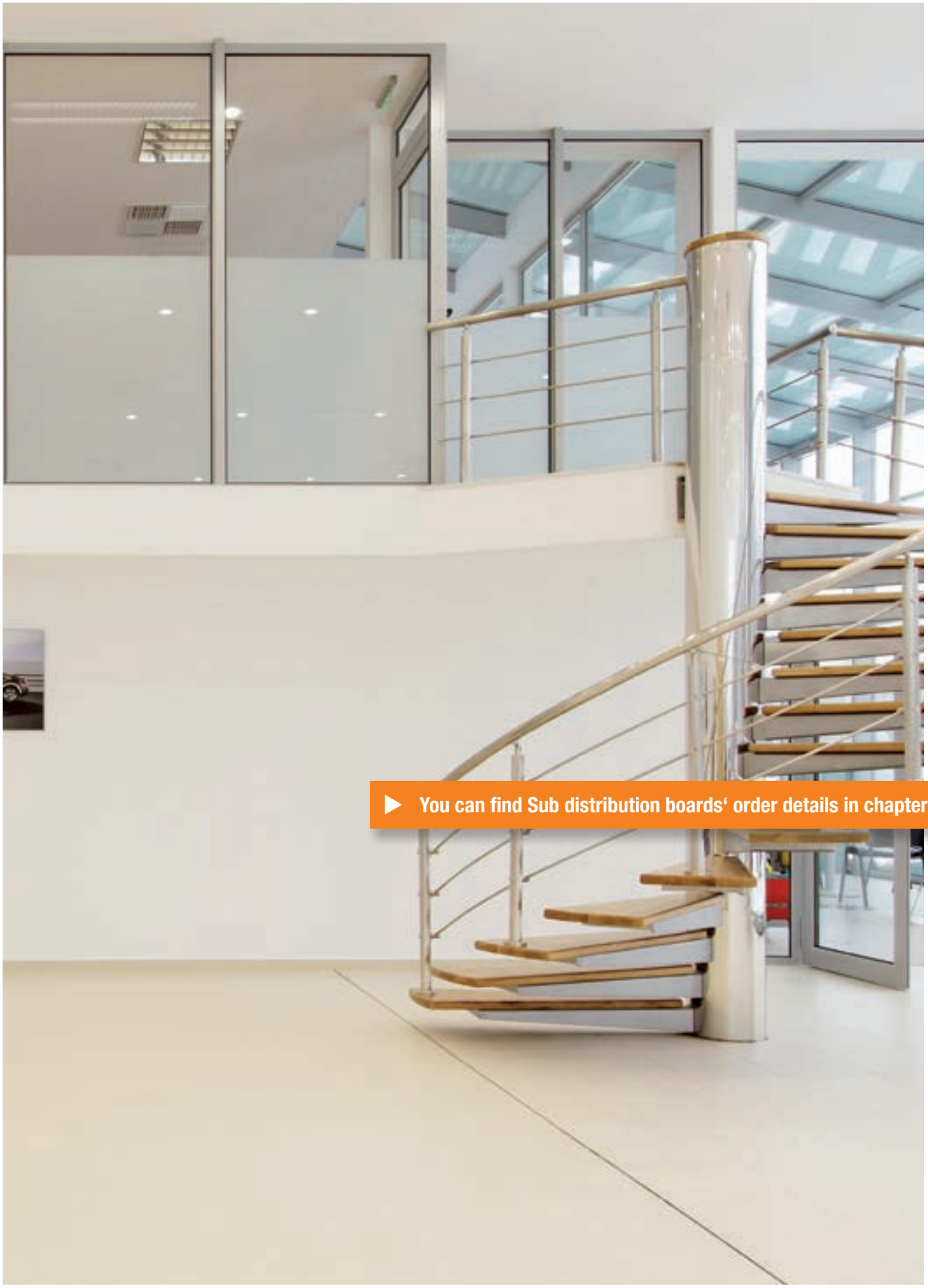
**TwinLine (sub Distribution boards)**

With the TwinLine system, ABB has set another milestone in the field of modern power distribution. TwinLine has been tested according to IEC 61439, DIN EN 61439-1/-2/-3.

The TwinLine system is a fully comprehensive product range, available in both protection classes and three cabinet depths, and all with the high degree of protection.

Continuity is the guiding principle for these new wall-mounting and floor-standing cabinets for distribution board assembly – from their high degree of protection and their ease of installation to a portfolio which can meet all requirements in the field.





You can find Sub distribution boards‘ order details in chapter 11

# A brief introduction to...
# Enclosures, Sub distribution boards



The benefits: comprehensive product selection, high quality, quick and easy internal configuration. A simplified accessories concept guarantees full flexibility while reducing inventory levels. Are you looking for a modern, user-optimised and future-proof cabinet for distribution board assembly? Then you will surely find it with TwinLine.

System intelligence comes standard with the new wall-mounting and floor-standing cabinets because in combination with CombiLine modules, TwinLine offers you unlimited possibilities for the internal configuration.

With its door opening angle of 180 degree, the door also exceeds in terms of accessibility. The door hinges with exterior pivots enable optimum access during operation or for expansion, maintenance and function monitoring.

A visual inspection of the status of individual devices is possible without opening the door. The window allows to conveniently monitor signal lights. for example. With its 4 mm thickness, this safety glass provides amazing shock and impact protection.
It goes without saying that all lock parts of the TwinLine series can also be used for the new transparent doors. A simplified accessories concept guarantees full flexibility with reduced inventory levels. TG206GB.

TwinLine has been adapted to fulfill different installation habits all over the world.
In order to have a clear differentiation of the types of cabinets the naming of TwinLine has been adapted to fulfil this request.
Markets using welded cabinets according to DIN standards, also called North European style, will use the type description TwinLine N 55. Welded cabinets for installation habits commonly used in South European countries are named TwinLine S 55. The flatpack version for this South European installation habit is called TwinLine S 43.

**CombiLine (System pro *E* Combi)**
The modular distribution panel system up to 850 A.
The highly sophisticated quick mounting system from ABB makes the completion of modular cabinets with distribution panels an effortless process. Simple, quick and safe – these are the three attributes of this system that speak for themselves.
Thanks to the uniform screw driving methods using Torx, the distribution panel system CombiLine is now even more convenient to use!

System pro *E* combi is the range for the interior fittings for all distribution boards. Naming of the CombiLine system has been changed to fit in-line with the TwinLine cabinet philosophy.

– CombiLine N = interior fitting with plastic covers
– CombiLine S = interior fitting with metal covers

In combination with the existing energy distribution range and the new expansion we will have products for all different markets.

Your benefits:

– More flexibility
– Faster to build-up and assemble,
– Less stock in volume

More competitive for you and your partners in the different markets and segments.

## E-Design software

ABB presents e-Design, the new engineering software suite launched as a tool to meet the needs of electrical sector professionals working in a constantly changing market.

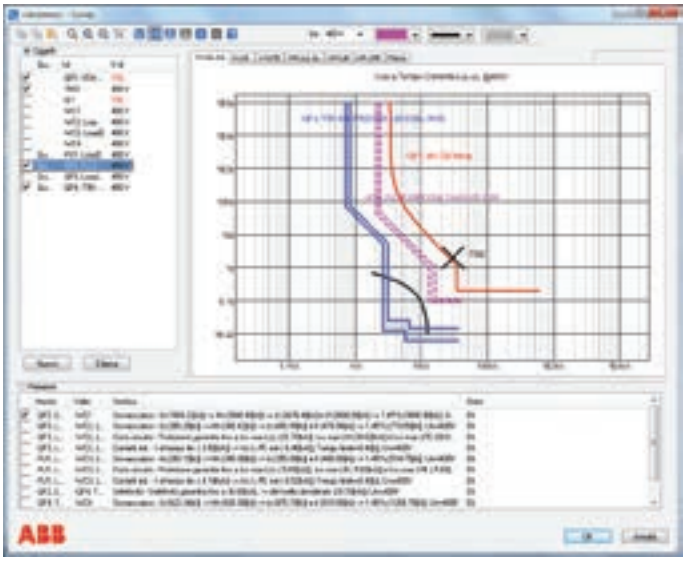
e-Design makes it possible to design an electrical system, optimizing production times to the maximum, thanks to the ability to access a product portfolio to be used in synergy through intuitive and simple functionalities.The suite's appealing and brand-new look, combined with a general optimization of the functionalities that have always characterised ABB software, make it an innovative tool in step with the technologies currently available in the sector.

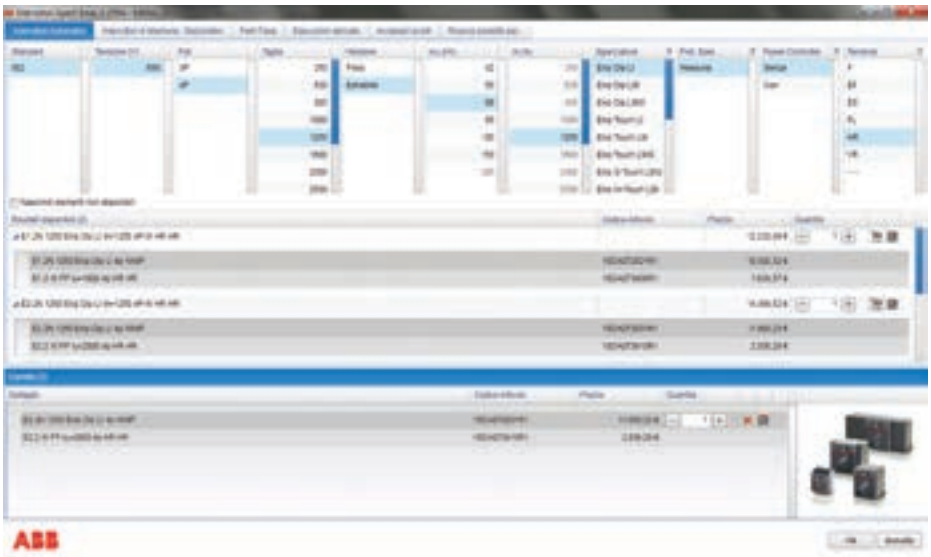
**ABB's experience in a single suite**

ABB's commitment in developing engineering software has always been driven by the rigorous preparation of its engineers and its sharp focus on the needs of professionals working in the sector.

In such a rapidly changing context as exists today, it is essential to support the supply of increasingly technologically complex equipment with solutions that ensure that such equipment is simple to use.

Conscious of market requirements, ABB is capitalizing on its own experience and presents the new e-Design suite as a practical response to every critical aspect of the design process.





# Products from other catalogues
# You may also be interested in...

1 The ABB range of products doesn‘t fit in only one catalogue.

## System pro *E* power
## Main distribution switchgear

The ABB’s new System pro *E* Power switchboard provides a complete solution for electric power main distribution in infrastructures and industries that complies with the latest international standards and guarantees perfect synergy with all the other ABB low voltage apparatus, such as Tmax T and XT moulded-case circuit-breakers, Emax 2 air circuit-breakers and of course, all the DIN rail components of System pro *M* compact® range. These and many other ABB’s devices can be installed in this innovative switchboard since, a wide range of accessories, ensures that all components are perfectly compatible with each other, with extremely easy assembly and wiring operations.



## System pro *E* control Enclosure for automation and control

With SR2, AM2 and IS2, ABB proposes a wide range of enclosures extremely versatile and performing that fit all the requirements in automation applications: on-board machine switchboards, automated production lines, control and operation panel boards for industrial plant.
The System pro *E* control series includes EMC versions (ElectroMagnetic Compatibility) and enclosures made in stainless steel AISI304 to be used outdoor and in applications where high standards of hygiene resistance are required such as food industries, chemical and pharmaceutical sectors.
Thanks to the availability of a wide range of accessories, the System pro *E* control allows the easy installation of front panel devices and the DIN rail components of the System pro *M* compact® range.



## Gemini

Gemini is the ABB range of switchboards in thermoplastic, made with innovative co-injection molding technique that gives to this product robustness and high mechanical performances.
Furthermore Gemini has a IP66 degree of protection and a very high resistance to chemical and atmospheric agents. This is the reason why Gemini guarantees excellent performances even in particularly severe operating conditions both in indoor and outdoor installations.
The Gemini switchboard is designed to be fitted with all the System pro *M* compact® devices and the ABB moulded-case circuit breakers.
Gemini switchboards are also perfectly compatible with other ABB low voltage components for control, monitoring and signaling devices, thereby creating a truly integrated automation system.



# Products from other catalogues
# You may also be interested in...

1

## SACE Tmax T

The SACE Tmax T range consists of 9 circuit breaker sizes, all available in 3-pole and 4-pole versions, in fixed execution from T1 to T9, plug-in from T2 to T5 and extractable from T4 to T7.
The following ranges are designed to meet all the various application requirements: circuit breakers for power distribution in alternating and direct current, circuit breakers for advanced zone selectivity, circuit breakers for motor protection, circuit breakers for applications up to 1150V in alternating current and 1000V in direct current, PV switchdisconnectors for photovoltaic systems.



## SACE Tmax XT

The SACE Tmax XT range fully meets all system needs, from the most basic to the most advanced, thanks also to its completeness (offering four sizes from 160A to 250A).
These items are distinguished by their excellent capacity to limit peak currents and specific let-through energy, thereby ensuring optimum sizing of the circuits and the devices downstream. The SACE Tmax XT circuit breakers are fitted with thermomagnetic and electronic releases to guarantee protection against both overloads and short-circuiting, and against earth faults and indirect contact in the low voltage distribution network.
The SACE Tmax XT moulded-case circuit breakers can be equipped with thermomagnetic releases to offer protection for networks in direct and alternating current (by exploiting the physical properties of a bimetal and an electromagnet, they can detect overloads and short- circuits), or electronic releases to protect alternating current networks. These releases use microprocessor technology to obtain highly reliable protection functions with accurate intervention.



# Solutions for electrical distribution in buildings
## Miniature circuit-breakers


Quick selection of MCBs 2/2

**MCBs S 200**

S 200 technical features 2/18
S 200 series, 6 kA 2/24
S 200 M series, 10 kA 2/38
S 200 M UC series, 10 kA 2/52
S 200 P series, 15/25 kA 2/61
S 200 PR series, 10 kA 2/76
S 200 S screwless series, 6 kA 2/79
SU 200 M series, 10kA 2/80
SU 200 PR series, 10 kA 2/92
S 200 UDC series, 60 V DC 2/95

**MCBs SN 201**

SN 201 L series, 4.5 kA 2/98
SN 201 series, 6 kA 2/103
SN 201 M series, 10 kA 2/105

**MCBs S 200 80-100A**

S 200 80-100A series, 6 kA 2/106

**SMCBs S 750 DR**

S 750 DR series 2/110

**SMCBs S 700**

S 700 series 2/113
S 700 + H2WR series 2/118
WT63 2/122

**MCBs S 800**

S800S series, 50 kA 2/124
S800N series, 36 kA 2/155
S800C series, 25 kA 2/161
S800B series, 16 kA 2/169
S800HV series, 4 kA 2/173
S800U series, 50 kA 2/180
S804U-UCZ series, 10 kA 2/176
S800PV series, 5 kA, DC 2/186

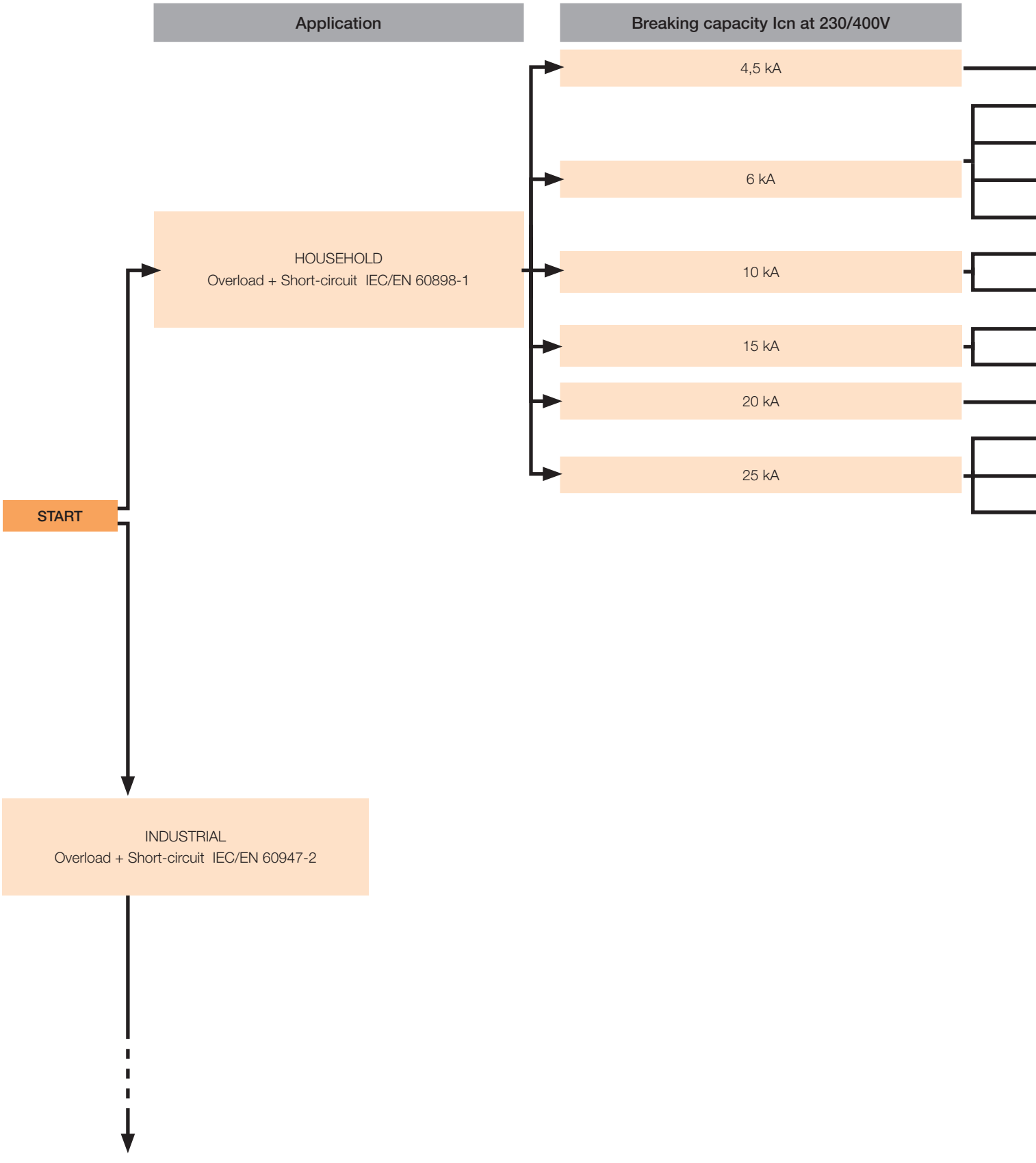
**MCBs S 500**

S500 series 2/188
S500UC series 2/196
S500HV series 2/200

# System pro *M* compact®
## Quick selection of MCBs for household and industrial applications

Easy! Find the right range and the corresponding catalogue page at a glance using this selection chart.



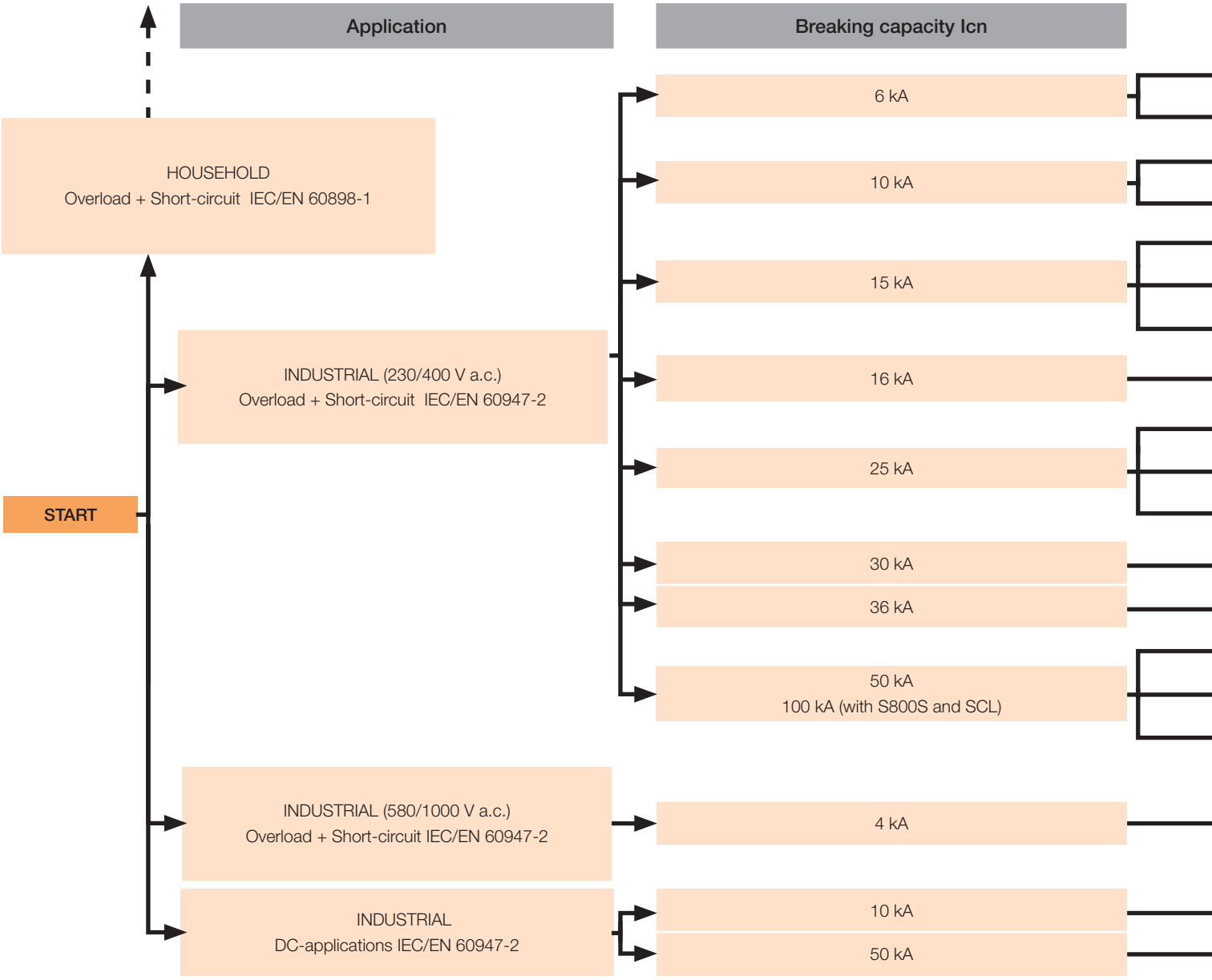


| Rated current | Poles | Solution | Page |
|---|---|---|---|
| Up to 40 A | 1P+N | SN 201 L | 2/102 |
| Up to 40 A | 1P+N | SN 201 | 2/103 |
| Up to 20 A | 1P, 3P | S 200 S | 2/79 |
| Up to 63 A | All poles | S 200 | 2/24 |
| Up to 100 A | All poles | S 200 | 2/109 |
| Up to 40 A | 1P+N | SN 201 M | 2/105 |
| Up to 63 A | All poles | S 200 M | 2/38 |
| Up to 63 A | All poles | S 200 P | 2/61 |
| Up to 125 A | All poles | S800C | 2/161 |
| Up to 80 A | All poles | S800N | 2/155 |
| Up to 25 A | All poles | S 200 P | 2/61 |
| Up to 63 A/100 A | All poles | S 750 DR/S 700 ① | 2/114, 2/118 |
| Up to 80 A | All poles | S800S | 2/130 |

① with specific short-circuit selectivity function

# System pro *M* compact®
## Quick selection of MCBs for household and industrial applications

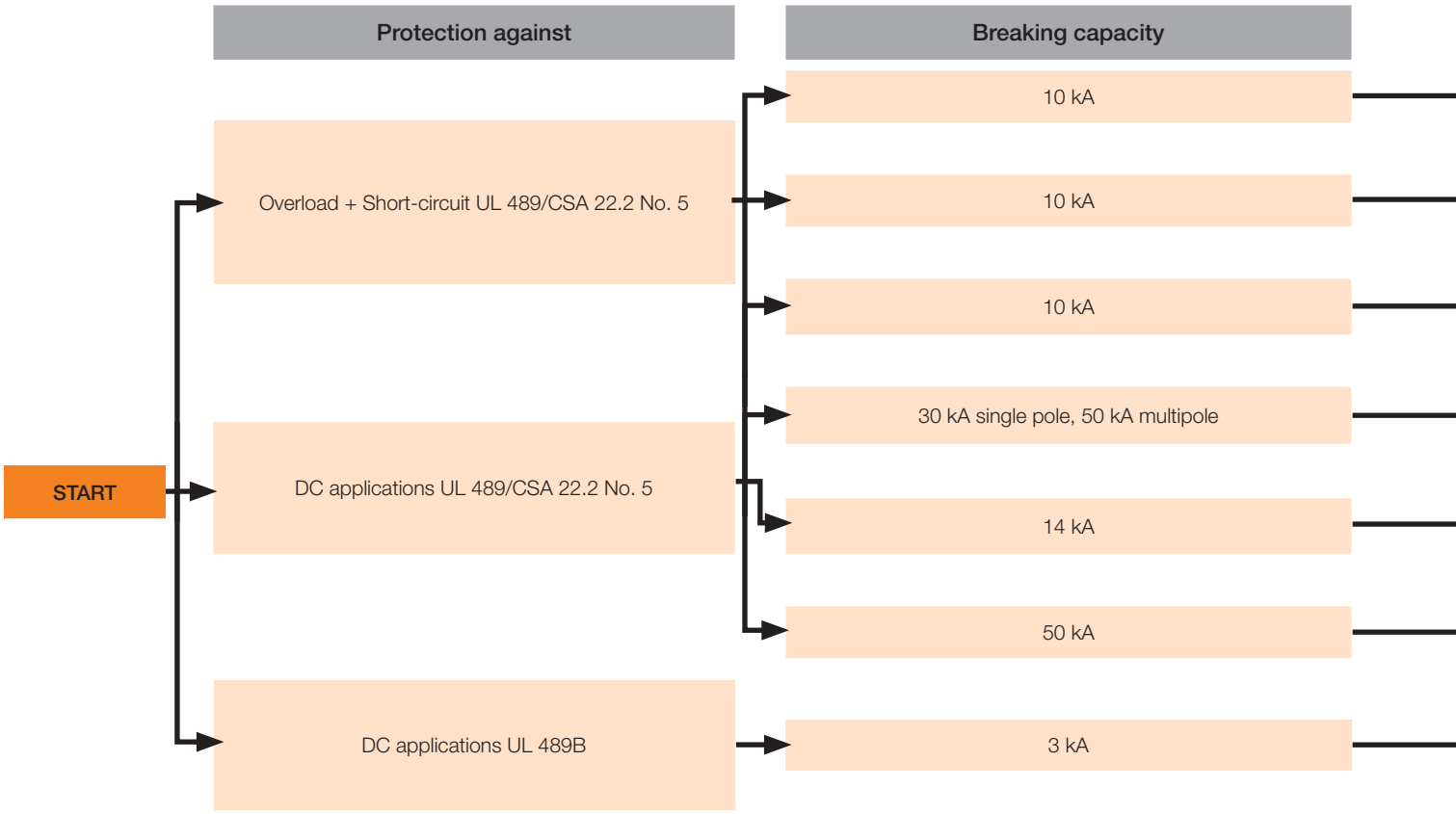




| Rated current | Poles | Solution | Page |
|---|---|---|---|
| Up to 40 A | 1P+N | SN 201 L | 2/102 |
| Up to 100 A | All poles | S 200 | 2/109 |
| Up to 40 A | 1P+N | SN 201, SN 201 M | 2/103, 2/105 |
| Up to 63 A | All poles | S 200, S 200 M | 2/24, 2/38 |
| Up to 40 A | All poles | S 200 M | 2/38 |
| Up to 63 A | All poles | S 200 P | 2/61 |
| Up to 63 A | 1P, 2P, 3P, 4P | S 200 PR | 2/76 |
| Up to 125 A | All poles | S800B | 2/169 |
| Up to 25 A | All poles | S 200 P | 2/61 |
| Up to 63 A/100 A | All poles | S 750 DR/S 700 ① | 2/114, 2/118 |
| Up to 125 A | All poles | S800C | 2/161 |
| Up to 45 A | All poles | S500 | 2/194 |
| Up to 125 A | All poles | S800N | 2/155 |
| Up to 125 A | All poles | S800S | 2/130 |
| Up to 125 A | All poles | S800SCL + S800S | 4/58, 2/130 |
| Up to 11 A | All poles | S500 | 2/194 |
| Up to 125 A | 1P, 2P, 3P | S800HV | 2/173 |
| Up to 63 A | 1P, 2P, 3P, 4P | S 200 M UC | 2/52 |
| Up to 125 A | All poles | S800S-UC | 2/155 |

# System pro *M* compact®
## Quick selection of MCBs for UL applications (UL 489/CSA 22.2 No. 5)





| Rated current | Remark | Poles | Solution | Page |
|---|---|---|---|---|
| Up to 63 A | | 1P, 2P, 3P, 4P | SU 200 M | 2/82 |
| Up to 40 (35) A | | 1P, 2P, 3P, 4P | SU 200 M | 2/82 |
| Up to 63 A | Ring Tongue | 1P, 2P, 3P, 4P | SU 200 PR | 2/92 |
| Up to 100 A | | All poles | S 800 U | 2/180 |
| Up to 63 A | | 1P, 2P | S 200 UDC | 2/182 |
| Up to 100 A | | 1P, 2P, 3P, 4P | S 800 U | 2/180 |
| 5 A | | 4P | S804U-PVS5 | 2/185 |

# Miniature circuit-breakers
## Selection table










| Series | | | | S 200 | S 200 M | S 200 M UC | S 200 P | | | S 200 PR | S 200 S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Characteristics | | | | B,C,D, K,Z | B,C,D, K,Z | B,C, K, Z | B,C,D, K,Z | B,C,D, K,Z | B,C,D, K,Z | K | B,C |
| Rated current | [A] | | | 0.5 ≤ In ≤ 63 | 0.5 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 0.2 ≤ In ≤ 25 | 32 ≤ In ≤ 40 | 50 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 6 ≤ In ≤ 20 |
| Breaking capacity | [kA] | | | | | | | | | | |
| Reference standard | | Nr. poles | Ue[V] | | | | | | | | |
| IEC/EN 60898 | Icn | | 230/400 | 6 | 10 | 10 | 25 | 15 | 15 | | 6 |
| IEC/EN 60947-2 Alternating current | Icu | 1, 1P+N | 133 | 20 | 25 | | 40 | 25 | 25 | | |
| | | | 230 | 10 | 15 | | 25 | 15 | 15 | 15 | |
| | | | 253 | | | | | | | | |
| | | 2, 3, 4 | 230 | 20 | 25 | 10 ⑰/6 ⑱ | 40 | 25 | 25 | | |
| | | | 400 | 10 | 15 | | 25 | 15 | 15 | 15 | |
| | | | 440 | 10 | 15 | 10 ⑰/6 ⑱ | | | | | |
| | | 2, 3, 4 | 500 | | | | | | | | |
| | | | 690 | | | | | | | | |
| | Ics | 1, 1P+N | 133 | 15 | 18.7 ⑧ | | 20 | 18.7 | 18.7 | | |
| | | | 230 | 7.5 | 11.2 ⑧ | | 12.5 | 11.2 | 7.5 | | |
| | | | 253 | | | 7.5 ⑰/6 ⑱ | | | | 7.5 ⑱ 11.2 ⑰ | |
| | | 2, 3, 4 | 230 | 15 | 18.7 ⑧ | | 20 | 18.7 | 18.7 | | |
| | | | 400 | 7.5 | 11.2 ⑧ | | 12.5 | 11.2 | 7.5 | | |
| | | | 440 | 7.5 | 11.2 ⑧ | 7.5 ⑰/6 ⑱ | | | | 7.5 ⑱ 11.2 ⑰ | |
| | | 2, 3, 4 | 500 | | | | | | | | |
| | | | 690 | | | | | | | | |
| IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms | Icu | 1, 1P+N | 24 | 20 | | | | | | | |
| | | | 60 | 10 | 10 | | 15 | 10 | 10 | | |
| | | | 125 | | | | | | | | |
| | | | 220 | | | 10 | | | | | |
| | | | 250 | | | | | | | | |
| | | 2 | 48 | 20 | | | | | | | |
| | | | 125 | 10 | 10 | | 15 | 10 | 10 | | |
| | | | 250 | | | | | | | | |
| | | | 440 | | | 10 | | | | | |
| | | | 500 | | | | | | | | |
| | | | 800 | | | | | | | | |
| | | 3,4 | 375 | | | | | | | | |
| | | | 500 | | | | | | | | |
| | | | 750 | | | | | | | | |
| | | | 1200 | | | | | | | | |

① only up to 40 A; 10 kA up to 50/63 A
② only for "D" characteristic
③ values are not for all rated currents
④ 600 V DC for 100, 125 A
⑤ 1000 V DC for 100, 125 A
⑥ 3 poles
⑦ 4 poles
⑧ max. values. Detailed values on page 2/12
⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
⑪ by 600 V DC 2-pole
⑫ ≤ 25 A
⑬ > 25 A
⑭ char. B, C
⑮ only 2 poles (connection in series)
⑯ UL 1077 only
⑰ ≤ 40 A
⑱ > 40 A
⑲ ≤ 35 A
⑳ 10-80 A



| | SU 200 M | | | | SU 200 PR | S 200 UDC | SN 201 L | SN 201 | SN 201 M | S200 80-100A | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | C,Z | K | C,Z | K | K | K,Z | B,C | B,C,D | B,C | B,C | |
| | 0.2 ≤ In ≤ 40 | 0.2 ≤ In ≤ 35 | 50 ≤ In ≤ 63 | 40 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 1 ≤ In ≤ 63 | 2 ≤ In ≤ 40 | 2 ≤ In ≤ 40 | 2 ≤ In ≤ 40 | 80 ≤ In ≤ 100 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | 4.5 | 6 | 10 | 6 | |
| | | | | | | | 10 | 15 | 20 | 20 | |
| | 15 | 15 | 15 | 15 | 15 | | 6 | 10 | 10 | 6 | |
| | | | | | | | | | | | |
| | | | | | | | | | | 20 | |
| | 15 | 15 | 15 | 15 | 15 | | | | | 6 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | 6 | 10 | 10 | 10 | |
| | 11.25 | 11.25 | 7.5 | 7.5 | | | 4.5 | 6 | 7.5 | 6 | |
| | | | | | 7.5 ⑱<br>11.2 ⑰ | | | | | | |
| | | | | | | | | | | 10 | |
| | 11.25 | 11.25 | 7.5 | 7.5 | | | | | | 6 | |
| | | | | | 7.5 ⑱<br>11.2 ⑰ | | | | | | |
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| | 15 | 15 | 10 | 10 | | | 10 | 15 | 15 | | |
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| | 15 | 15 | 10 | 10 | | | 10 | 15 | 15 | | |
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# Miniature circuit-breakers
## Selection table










| Series | | | | S 200 | S 200 M | S 200 M UC | S 200 P | | | S 200 PR | S 200 S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Characteristics | | | | B,C,D, K,Z | B,C,D, K,Z | B,C, K, Z | B,C,D, K,Z | B,C,D, K,Z | B,C,D, K,Z | K | B,C |
| Rated current | [A] | | | 0.5 ≤ In ≤ 63 | 0.5 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 0.2 ≤ In ≤ 25 | 32 ≤ In ≤ 40 | 50 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 6 ≤ In ≤ 20 |
| IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms | Ics | 1, 1P+N | 24 | 20 | | | | | | | |
| | | | 60 | 10 | 10 | | 15 | 10 | 10 | | |
| | | | 125 | | | | | | | | |
| | | | 220 | | | 10 | | | | | |
| | | | 250 | | | | | | | | |
| | | 2 | 48 | 20 | | | | | | | |
| | | | 125 | 10 | 10 | | 15 | 10 | 10 | | |
| | | | 250 | | | | | | | | |
| | | | 440 | | | 10 | | | | | |
| | | | 500 | | | | | | | | |
| | | | 800 | | | | | | | | |
| | | 3,4 | 375 | | | | | | | | |
| | | | 500 | | | | | | | | |
| | | | 750 | | | | | | | | |
| | | | 1200 | | | | | | | | |
| UL 1077/ C22.2 No 235 Alternating current | Int. cap. | 1, 1P+N | 120 | 10 ⑯ | | | 10 | 6 | 6 | | |
| | | | 240 | | | | | | | | |
| | | | 277 | 6 ⑯ | 6 | 6 | 10 | 6 | 6 | 10 | |
| | | 2, 3, 4 | 240 | 10 ⑯ | | | 10 | 6 | 6 | | |
| | | | 480 Y/277 | 6 ⑯ | 6 | 6 | 10 | 6 | 6 | 10 | |
| UL 1077/ C22.2 No 235 Direct current | Int. cap. | 1, 1P+N | 60 | 10 ⑯ | 10 | | | | | | |
| | | | 125 | | | | | | | | |
| | | | 250 | | | 10 | | | | | |
| | | 2, 3, 4 | 125 | | 10 | | | | | | |
| | | | 250 | | | | | | | | |
| | | | 500 | | | 10 | | | | | |
| UL 489/ C22.2 No 5 Alternating current | Int. cap. | 1 | 240 | | | | | | | | |
| | | | 277 | | | | | | | | |
| | | 2, 3, 4 | 240 | | | | | | | | |
| | | | 480 Y/277 | | | | | | | | |
| UL 489/ C22.2 No 5 Direct current | Int. cap. | 1 | 48 | | | | | | | | |
| | | | 60 | | | | | | | | |
| | | 2 | 96 | | | | | | | | |
| | | | 125 | | | | | | | | |

① only up to 40 A; 10 kA up to 50/63 A
② only for "D" characteristic
③ values are not for all rated currents
④ 600 V DC for 100, 125 A
⑤ 1000 V DC for 100, 125 A
⑥ 3 poles
⑦ 4 poles
⑧ max. values. Detailed values on page 2/12
⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
⑪ by 600 V DC 2-pole
⑫ ≤ 25 A
⑬ > 25 A
⑭ char. B, C
⑮ only 2 poles (connection in series)
⑯ UL 1077 only
⑰ ≤ 40 A
⑱ > 40 A
⑲ ≤ 35 A
⑳ 10-80 A










| | SU 200 M | | | | SU 200 PR | S 200 UDC | SN 201 L | SN 201 | SN 201 M | S200 80-100A | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | C,Z | K | C,Z | K | K | K,Z | B,C | B,C,D | B,C | B,C | |
| | 0.2 ≤ In ≤ 40 | 0.2 ≤ In ≤ 35 | 50 ≤ In ≤ 63 | 40 ≤ In ≤ 63 | 0.2 ≤ In ≤ 63 | 1 ≤ In ≤ 63 | 2 ≤ In ≤ 40 | 2 ≤ In ≤ 40 | 2 ≤ In ≤ 40 | 80 ≤ In ≤ 100 | |
| | | | | | | | | | | | |
| | 15 | 15 | 10 | 10 | | | 10 | 15 | 15 | | |
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| | 15 | 15 | 10 | 10 | | | 10 | 15 | 15 | | |
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| | | | | | | | | | | | |
| | | | 10 | 10 | 10 | | | | | | |
| | 10 | 10 | | | 10 (19) | | | | | | |
| | | | 10 | 10 | 10 | | | | | | |
| | 10 | 10 | | | 10 (19) | | | | | | |
| | 10 | 10 | 10 | 10 | | | | | | | |
| | | | | | | 14 | | | | | |
| | 10 | 10 | 10 | 10 | | | | | | | |
| | | | | | | 14 (15) | | | | | |

# High performance circuit-breakers
## Selection table









| Series | | | | S 750 DR | S 700 | S800S | | | | S800N | S800C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Characteristics | | | | E selective, K selective | E selective, K selective | B,C,D | K | KM | UCB | UCK | B,C,D | B,C,D,K |
| Rated current | [A] | | | 16 ≤ In ≤ 63 | 10 ≤ In ≤ 100 | 6 ≤ In ≤ 125 | 6 ≤ In ≤ 125 | 20 ≤ In ≤ 80 | 10 ≤ In ≤ 125 | 10 ≤ In ≤ 125 | 6 ≤ In ≤ 125 | 10 ≤ In ≤ 125 |
| Breaking capacity | [kA] | | | | | | | | | | | |
| Reference standard | | Nr. poles | Ue[V] | | | | | | | | | |
| IEC/EN 60898 | Icn | | 230/400 | | 25 ⑨ | 25 ⑳ | | | | | 20 ⑳ | 15 |
| IEC/EN 60947-2 Alternating current | Icu | 1, 1P+N | 133 | | | | | | | | | |
| | | | 230 | 25 | | 50 | 50 | 50 ⑥ | | | 36 | 25 |
| | | | 253 | | | | | | | | | |
| | | | 580 | | | | | | | | | |
| | | 2, 3, 4 | 230 | | | 50 | 50 | 50 ⑥ | | | 36 | 25 |
| | | | 400 | 25 | | 50 | 50 | 50 ⑥ | | | 36 | 25 |
| | | | 440 | | | | | | | | | |
| | | 2, 3, 4 | 500 | | | | | | | | | |
| | | | 690 | | | 6 ③ | 6 ③ | | | | 4.5 | |
| | | | 1000 | | | | | | | | | |
| | Ics | 1, 1P+N | 133 | | | | | | | | | |
| | | | 230 | 12.5 | 12.5 ⑨ | 40 | 40 | | | | 30 | 18 |
| | | | 253 | | | | | | | | | |
| | | 2, 3, 4 | 230 | | | 40 | 40 | 40 ⑥ | | | 30 | 18 |
| | | | 400 | 12.5 | 12.5 ⑨ | 40 | 40 | 40 ⑥ | | | 30 | 18 |
| | | | 440 | | | | | | | | | |
| | | 2, 3, 4 | 500 | | | | | | | | | |
| | | | 690 | | | 4 ③ | 4 ③ | | | | 3 | |
| IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms | Icu | 1, 1P+N | 24 | | | | | | | | | |
| | | | 60 | | | | | | | | | |
| | | | 125 | | | 30 | 30 | | | | 20 | 10 |
| | | | 220 | | | | | | | | | |
| | | | 250 | | | | | | 50 | 50 | | |
| | | 2 | 48 | | | | | | | | | |
| | | | 125 | | | | | | | | | |
| | | | 250 | | | 30 | 30 | | | | 20 | 10 |
| | | | 440 | | | | | | | | | |
| | | | 500 | | | | | | 50 | 50 | | |
| | | | 800 | | | | | | | | | |
| | | 3,4 | 375 | | | 30 ⑥ | 30 ⑥ | 30 ⑥ | 50 | 50 | 20 ⑥ | 10 ⑥ |
| | | | 500 | | | 30 ⑦ | 30 ⑦ | | 50 | 50 | 20 ⑦ | 10 ⑦ |
| | | | 750 | | | | | | 50 | 50 | | |
| | | | 1200 | | | | | | | | | |

① only up to 40 A; 10 kA up to 50/63 A
② only for "D" characteristic
③ values are not for all rated currents
④ 600 V DC for 100, 125 A
⑤ 1000 V DC for 100, 125 A
⑥ 3 poles
⑦ 4 poles
⑧ max. values. Detailed values on page 2/12
⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
⑪ by 600 V DC 2-pole
⑫ ≤ 25 A
⑬ > 25 A
⑭ char. B, C
⑮ only 2 poles (connection in series)
⑯ UL 1077 only
⑰ ≤ 40 A
⑱ > 40 A
⑲ ≤ 35 A
⑳ 10-80 A
㉑ for S804U-UCZ only
㉒ for S804U-PVS only










| | S800B | S800HV | S800U | S804U-UCZ | S804U-PVS | S800PV-S | S500 | | S500UC |
|---|---|---|---|---|---|---|---|---|---|
| | B,C,D,K | K | Z,K, UCZ, PVS | | | PV-S | K adjustable | | K adjustable |
| | 32 ≤ In ≤ 100/ 125 | 6...125 | 5 ≤ In ≤ 100 | 10-80 | 5 | 10 ≤ In ≤ 125 | 0.1 ≤ In ≤ 11 | 10 ≤ In ≤ 45 | 0.1 ≤ In ≤ 45 |
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| | 10 | | | | | | | | |
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| | 16 | | 30 | | | | 50 | 30 | |
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| | | 4 | | | | | | | |
| | 16 | | 50 | | | | | | |
| | 16 | | 50 | | | | 50 | 30 | |
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| | | | | | | | 20 | 15 | |
| | | | | | | | 6 | 6 | |
| | | 4 | | | | | | | |
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| | 10 | | 25 | | | | | | |
| | | | | | | | | | |
| | 10 | | 40 | | | | 30 | 25 | |
| | 10 | | | | | | 30 | 25 | |
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| | | | | | | | | | 30 |
| | | | | | | 5 ⑤ | | | |

# High performance circuit-breakers
## Selection table









| Series | | | | S 750 DR | S 700 | S800S | | | | | S800N | S800C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Characteristics | | | | E selective, K selective | E selective, K selective ⑨ | B,C,D | K | KM | UCB | UCK | B,C,D | B,C,D,K |
| Rated current | [A] | | | 16 ≤ In ≤ 63 | 10 ≤ In ≤ 100 | 6 ≤ In ≤ 125 | 6 ≤ In ≤ 125 | 20 ≤ In ≤ 80 | 10 ≤ In ≤ 125 | 10 ≤ In ≤ 125 | 6 ≤ In ≤ 125 | 10 ≤ In ≤ 125 |
| IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms | Ics | 1, 1P+N | 24 | | | | | | | | | |
| | | | 60 | | | | | | | | | |
| | | | 125 | | | 30 | 30 | | | | 20 | 10 |
| | | | 220 | | | | | | | | | |
| | | | 250 | | | | | | 50 | 50 | | |
| | | 2 | 48 | | | | | | | | | |
| | | | 125 | | | | | | | | | |
| | | | 250 | | | 30 | 30 | | | | 20 | 10 |
| | | | 440 | | | | | | | | | |
| | | | 500 | | | | | | 50 | 50 | | |
| | | | 800 | | | | | | | | | |
| | | 3,4 | 375 | | | 30 ⑥ | 30 ⑥ | 30 ⑥ | 50 | 50 | 20 ⑥ | 10 ⑥ |
| | | | 500 | | | 30 ⑦ | 30 ⑦ | | 50 | 50 | 20 ⑦ | 10 ⑦ |
| | | | 750 | | | | | | 50 | 50 | | |
| | | | 1200 | | | | | | | | | |
| UL 1077/ C22.2 No 235 Alternating current | Int. cap. | 1, 1P+N | 120 | | | | | | | | | |
| | | | 240 | | | | | | | | | |
| | | | 277 | | | | | | | | | |
| | | 2, 3, 4 | 240 | | | | | | | | | |
| | | | 480 Y/277 | | | | | | | | | |
| UL 1077/ C22.2 No 235 Direct current | Int. cap. | 1, 1P+N | 60 | | | | | | | | | |
| | | | 125 | | | | | | | | | |
| | | | 250 | | | | | | | | | |
| | | 2, 3, 4 | 125 | | | | | | | | | |
| | | | 250 | | | | | | | | | |
| | | | 500 | | | | | | | | | |
| UL 489/ C22.2 No 5 Alternating current | Int. cap. | 1 | 240 | | | | | | | | | |
| | | | 277 | | | | | | | | | |
| | | 2, 3, 4 | 240 | | | | | | | | | |
| | | | 480 Y/277 | | | | | | | | | |
| UL 489/ C22.2 No 5 Direct current | Int. cap. | 1 | 60 | | | | | | | | | |
| | | 2 | 125 | | | | | | | | | |
| | | 4 | 600 | | | | | | | | | |
| UL 498B | | 4 | 1000 | | | | | | | | | |

① only up to 40 A; 10 kA up to 50/63 A
② only for "D" characteristic
③ values are not for all rated currents
④ 600 V DC for 100, 125 A
⑤ 1000 V DC for 100, 125 A
⑥ 3 poles
⑦ 4 poles
⑧ max. values. Detailed values on page 2/12
⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
⑪ by 600 V DC 2-pole
⑫ ≤ 25 A
⑬ > 25 A
⑮ only 2 poles (connection in series)
⑯ UL 1077 only
⑰ ≤ 40 A
⑱ > 40 A
⑲ ≤ 35 A
⑳ 10-80 A
㉑ for S804U-UCZ only)
㉒ for S804U-PVS only)
㉓ by 75V DC 1-pole
㉔ by 150V DC 2-pole
㉕ by 225V DC 3-pole
㉖ by 300V DC 4-pole










| S800B | S800HV | S800U | S804U-UCZ | S804U-PVS | S800PV-S | S500 | | S500UC |
|---|---|---|---|---|---|---|---|---|
| B,C,D,K | K | Z,K | | | PV-S | K adjustable | | K adjustable |
| 32 ≤ In ≤ 100/ 125 | 6...125 | 10 ≤ In ≤ 100 | 10-80 | 5 | 10 ≤ In ≤ 125 | 0.1 ≤ In ≤ 11 | 10 ≤ In ≤ 45 | 0.1 ≤ In ≤ 45 |
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| 10 ㉕ | | | | | | | | |
| 10 ㉖ | | | | | | | | |
| | | | | | | | | |
| | | | | | 5 ④ | | | |
| | | | | | | 30 ⑫ | 18 ⑬ | |
| | | | | | | | | |
| | | | | | | 14 ⑫ | 14 ⑬ | |
| | | | | | | 30 ⑫ | 18 ⑬ | |
| | | | | | | 14 ⑫ | 14 ⑬ | |
| | | | | | | | | 30 ⑩ |
| | | | | | | | | |
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| | | | | | | | | 30 ⑪ |
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| | | 30 | | | | | | |
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| | | | 10 ㉑ | | | | | |
| | | | | 3 ㉒ | | | | |

# MCB S 200. The details make the difference
## A range designed to ensure efficiency and protection



Twin terminal for separate feeding of busbar and conductor

IP20 - finger safety.




Easy identification of the product and highly resistant laser marking.

Safe your time – all important data available right away.

Easy product name, easy identification, easy life.

Quick identification thanks to laser printed EAN marking.

Contact position indication

Captive screws: don't loose what's important for you.

Whatever your application need is applicable with a wide range of accessories.



**Contact position indication**
All System pro *M* compact® MCBs are suited with a contact position indication (CPI) on the toggle. You can easily identify, if the MCB is in the ON or the OFF position – easy and safe maintenance work is possible.



**Approvals printed on the dome**
S 200 MCBs comply to IEC/EN 60898-1 and IEC/EN 60947-2 and carry all relevant approval marks for each market and segment they are destined to. The certification markings are also printed on the dome of the MCB. Thus make it possible to see the markings also in the mounted position. For control and acceptance procedure – certification marks visible on fitted devices on the dome.



**Housing material**
By using the state-of-the-art housing material, ABB is taking care of the environment. With the latest generation of thermoplastics it's possible to recycle the MCBs – especially the thermoplastic housing-material can be re-used. By using the latest generation of thermoplastics the material stability of all System pro *M* compact® MCBs is improved. S200 are 100% free of halogens – no environmental
pollution.




**Laser printing**
All printings of the S 200 and S 200 M MCBs, like the approvals on the dome and the product identification, are printed by a laser. The laser printing ensures a friction, scratch and solvent resistant marking on the MCBs.
Easy identification of the products in case of maintenance or replacements due to safe laser printing.




**Screwless terminals**
With its unique terminal screwless technology the S 200 S provides maximum flexibility in usage of cables. The screwless load side terminal enables fast installation. High forces in the screwless terminal safe time for retightening after transport of the assembled enclosure.
If the wiring has to be changed only a soft push on the lever is required.
S 200 S provides the highest standard of safety for installer.
IP20 / IPXXB (finger safe) highest standard of touch protection.



**IP 20 - finger safe terminals**
The System pro *M* compact® MCB's are equiped with 35 mm² + 10 mm² cylinder lift twin terminals, a well proven and reliable technology - designed for sopisticated industrial use.
The cross wiring can easily be done by inserting the System pro *M* compact® busbars into the rear terminal part and then the incoming wires into the front part of the terminal.

# MCBs
## S 200 technical features




**S 200**

| | | | S 200 | S 200 M |
|---|---|---|---|---|
| General Data | Standards | | IEC/EN 60898-1, IEC/EN 60947-2 | IEC/EN 60898-1, IEC/EN 60947-2 |
| | | | UL 1077 | UL 1077, CSA 22.2 No. 235 |
| | Poles | | 1P, 2P, 3P, 4P, 1P+N, 3P+N | |
| | Tripping characteristics | | B, C, D, K, Z | |
| | Rated current $I_n$ | A | 0.5…63 A | |
| | Rated frequency f | Hz | 50 / 60 Hz | |
| | Rated insulation voltage $U_i$ acc. to IEC/EN 60664-1 | V | 440 V AC (phase to phase) | |
| | Overvoltage category | | III | |
| | Pollution degree | | 3 | |
| Data acc. to IEC/EN 60898-1 (except S 200 M UC data acc. to IEC/EN 60898-2) | Rated operational voltage $U_n$ | V | 1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC | |
| | Max. power frequency recovery voltage ($U_{max}$) | V | 1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC | |
| | Min. operating voltage | V | 12 V AC - 12 V DC | |
| | Rated short-circuit capacity $I_{cn}$ | kA | 6 kA | 10 kA |
| | Energy limiting class (B, C up to 40 A) | | 3 | |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | 4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m) | |
| | Dielectric test voltage | kV | 2 kV (50 / 60Hz, 1 min.) | |
| | Reference temperature for tripping characteristics | °C | B, C, D: 30°C | |
| | Electrical endurance | ops. | In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, In ≤ 32A), (1 cycle 2s - ON, 28s - OFF, In > 32A) | |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage $U_e$ | V | 1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 440 V AC; 3P+N: 440 V AC | |
| | Max. power frequency recovery voltage ($U_{max}$) | V | 1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 462 V AC; 3P+N: 462 V AC; 1P: 72 V DC; 2P: 125 V DC | |
| | Min. operating voltage | V | 12 V AC - 12 V DC | |
| | Rated ultimate short-circuit breaking capacity $I_{cu}$ | kA | 10 kA | 15 kA |
| | Rated service short-circuit breaking capacity $I_{cs}$ | kA | 7.5 kA | ≤ 40 A: 11.2 kA<br>50, 63 A: 7.5 kA |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | 4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m) | |
| | Dielectric test voltage | kV | 2 kV (50 / 60Hz, 1 min.) | |
| | Reference temperature for tripping characteristics | °C | B, C, D: 55°C; K, Z: 20°C | |
| | Electrical endurance | ops. | In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, In ≤ 32A), (1 cyle 2s - ON, 28s - OFF, In > 32A) | |

Note:
* Only acc. to IEC/EN 60898-1

| | S 200 M UC | S 200 P | S 200 PR | S 200 S | SU 200 M | SU 200 PR | S 200 UDC |
|---|---|---|---|---|---|---|---|
| | IEC/EN 60898-2, IEC/EN 60947-2 | IEC/EN 60898-1, IEC/EN 60947-2 | IEC/EN 60947-2 | IEC/EN 60898-1 | IEC/EN 60947-2 | IEC/EN 60947-2 | |
| | | UL 1077, CSA 22.2 No. 235 | UL 1077, CSA 22.2 No. 235 | | UL 489, CSA22.2 No.5 | UL 489, CSA22.2 No.5 | UL 489 |
| | 1P, 2P, 3P, 4P | 1P, 2P, 3P, 4P, 1P+N, 3P+N | 1P, 2P, 3P, 4P | 1P, 3P | 1P, 2P, 3P, 4P | 1P, 2P, 3P, 4P | 1P, 2P |
| | B, C, K, Z | B, C, D, K, Z | K | B, C | C, K, Z | K | |
| | 0.2…63 A | | | 6…20 A | 0.2…63 A / 0.2…25 A | 0.2…63 A | 1…63 A |
| | 0 / 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | | | | DC |
| | 253 V AC (phase to ground), 440 V AC (phase to phase) | 250 V AC (phase to ground), 500 V AC (phase to phase) | | 250 V AC (phase to ground), 440 V AC (phase to phase) | | | |
| | | | | | | | -- |
| | 2 | | | | | | -- |
| | 1P: 230 V AC, 220 V DC<br>2P: 400 V AC, 440 V DC<br>3...4P: 400 V AC* | | | 1P: 230 V AC,<br>3P: 440 V AC | -- | | |
| | 1P: 253 V AC, 250 V DC<br>2P: 440 V AC, 500 V DC<br>3...4P:440 V AC* | | | 1P: 253 V AC,<br>3P: 440 V AC | -- | | |
| | | | | 12 V AC | -- | | |
| | 10 kA | ≤ 25 A: 25 kA<br>> 25 A: 15 kA | | 6 kA | -- | | |
| | | | | | -- | | |
| | | | | | -- | | |
| | | | | | -- | | |
| | 30 °C | | | B, C: 30 °C | -- | | |
| | | | | 20,000 ops. | -- | | |
| | 1P: 253 V AC, 220 V DC<br>2...4P: 440 V AC, 440 V DC | 1P: 230 V AC;<br>1P+N: 230 V AC;<br>2...4P: 400 V AC;<br>3P+N: 400 V AC | 1P: 230 V AC<br>2...4P: 400 V AC | | 1P: 230 V AC<br>2...4P: 400 V AC | 1P: 230 V AC<br>2...4P: 400 V AC | -- |
| | 1P: 266 V AC, 250 V DC<br>2...4P: 462 V AC, 500 V DC | 1P: 253 V AC;<br>1P+N: 253 V AC;<br>2P...4P: 440 V AC;<br>3P+N: 440 V AC;<br>1P: 72 V DC; 2P: 125 V DC | 1P: 253 V AC<br>2...4P: 440 V AC | | 1P: 253/440 V AC;<br>2...4P: 440 V AC | 1P: 253 V AC<br>2...4P: 440 V AC | -- |
| | | | 12 V AC | | 12 V AC | | -- |
| | ≤ 40 A: 10 kA AC; 10 kA DC<br>> 40 A: 6 kA AC; 10 kA DC | ≤ 25 A: 25 kA<br>≥ 32 A: 15 kA | 15 kA | | 10 kA | 15 kA | -- |
| | ≤ 40 A: 7,5 kA AC; 10 kA DC<br>> 40 A: 6 kA(AC; 10 kA DC | ≤ 25 A: 12.5 kA<br>≤ 32…40 A: 11.2 kA<br>50, 63 A: 7.5 kA | ≤ 40 A: 11.2 kA;<br>> 40 A: 7.5 kA AC; | | 7.5 kA | ≤ 40 A: 11.2 kA;<br>> 40 A: 7.5 kA (AC); | -- |
| | | | | | | | -- |
| | | | | | | | -- |
| | B, C: 55 °C; K, Z: 20 °C | | 20 °C | | C, K, Z: 20°C | 20 °C | -- |
| | In < 32A: 20,000 ops (AC),<br>In ≥ 32A: 10,000 ops. (AC);<br>1,500 ops. (DC); | In < 32A: 20,000 ops (AC),<br>In ≥ 32A: 10,000 ops. (AC);<br>1,000 ops. (DC);<br>(1 cycle 2s - ON, 13s - OFF, In ≤ 32A), (1 cyle 2s - ON, 28s - OFF, In ≥ 32A) | In < 25A: 20,000 ops (AC),<br>In ≥ 25A: 10,000 ops. (AC); | | | In < 25A: 20,000 ops (AC),<br>In ≥ 25A: 10,000 ops. (AC); | -- |

# MCBs
## S 200 technical features






**S 200**

| | | | S 200 | S 200 M | |
|---|---|---|---|---|---|
| Data acc. to UL / CSA | Rated voltage | V | 480Y / 277 V AC; | 480Y / 277 V AC; | |
| | | | 1P: 60 V DC;<br>2P…4P: 110 V DC | 1P: 60 V DC;<br>2P…4P: 125 V DC | |
| | Rated interrupting capacity acc. to UL 1077 | kA | 6 kA AC; 10 kA DC | | |
| | Short-circuit current rating acc. to UL 489 | | -- | | |
| | Application | | Suppl. prot. for general use. Application Codes:<br>TC2, OL0, SC: U1 | | |
| | Reference temperature for tripping characteristics | °C | B, C, D, K, Z: 25°C | | |
| | Electrical endurance | ops. | 6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1s - ON, 9s - OFF) | | |
| Mechanical Data | Housing | | Insulation group II,<br>RAL 7035 | | |
| | Toggle | | Insulation group II, black, sealable | | |
| | Contact position indication | | Marking on toggle (I ON / 0 OFF), Real CPI (red ON / green OFF) | | |
| | Protection degree acc. to EN 60529 | | IP20*, IP40 in enclosure with cover | | |
| | Mechanical endurance | ops. | 20,000 ops. | | |
| | Shock resistance acc. to IEC/EN 60068-2-27 | | 25 g - 2 shocks - 13 ms | | |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | 5g - 20 cycles at 5…150…5 Hz with load 0.8In | | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | °C/ RH | 28 cycles with 55°C/90-96% and 25°C/95-100% | | |
| | Ambient temperature | °C | -25 … +55°C | | |
| | Storage temperature | °C | -40 … +70°C | | |

Note:
* Also fulfilling the requirement acc. to the protection degree IPXXB
** Only with accessory: IP20 terminal clip

| | S 200 M UC | S 200 P | S 200 PR | S 200 S | SU 200 M | | SU 200 PR | S 200 UDC |
|---|---|---|---|---|---|---|---|---|
| | 480Y / 277 V AC | 480Y / 277 V AC | 480Y / 277 V AC | | 240 V AC | 480 Y / 277 V AC | 1P: ≤ 35 A: 277 V AC;<br>> 35 A: 240 V AC<br>2...4P: ≤ 35 A: 480 / 277 V AC;<br>> 35 A: 240 V AC | |
| | 1P: 250 V DC<br>2...4P: 500 V DC | | 480 / 277 V AC | | | | | 1P: 60 V DC<br>2P: 125 V DC |
| | | ≤ 25 A: 10 kA<br>> 25 A: 6 kA | 10 kA | | -- | | | |
| | | | | | 10 kA | | 10 kA | 14 kA (UL) |
| | TC1, 0L0,<br>SC: U1 | TC2, 0L0,<br>SC: U1 | Ring tongue terminal,<br>not for general use | | | | Ring tongue terminal, not for general use | |
| | | | 25 °C | | C, K, Z: 25 °C | | 25 °C | |
| | | | | | | | 6,000 ops. (1 cycle 1s - ON, 9s - OFF) | |
| | Insulation group I,<br>RAL 7035 | | | Insulation group II,<br>RAL 7035 | | | Insulation group I,<br>RAL 7035 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | IP20**, IP40 in enclosure with cover | | | |
| | | | | | | | | |
| | | 30 g - 3 shocks - 11 ms | 25 g - 2 shocks - 13 ms | 25 g - 2 shocks - 13 ms | 30 g - 3 shocks - 11 ms | | 25 g - 2 shocks - 13 ms | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

# MCBs
## S 200 technical features






S 200

| | | | | S 200 | S 200 M |
|---|---|---|---|---|---|
| Installation | Terminal | | | Failsafe bi-directional cylinder-lift terminal | |
| | Cross-section of conductors ① (top / bottom) | Solid / Stranded | $mm^2$ | 35 $mm^2$ / 35 $mm^2$ | |
| | | Flexible | $mm^2$ | 25 $mm^2$ / 25 $mm^2$ | |
| | | | AWG | 18 - 4 AWG | 14 - 4 AWG |
| | Cross-section of busbars (top / bottom) | | $mm^2$ | 10 $mm^2$ / 10 $mm^2$ | |
| | | | AWG | 18 - 8 AWG | 14 - 8 AWG |
| | Tightening Torque ② | | Nm | 2.8 Nm | |
| | | | in-lbs. | 18 in-lbs. | |
| | Screwdriver | | | No. 2 Pozidrive | |
| | Mounting | | | On DIN rail 35 mm acc. to EN 60715 by fast clip | |
| | Mounting position | | | any | |
| | Supply | | | optional | |
| Dimensions and weight | Mounting dimensions acc. to DIN 43880 | | | Mounting dimension 1 | |
| | Pole dimensions (H x D x W) | | mm | 88 x 69 x 17.5 mm | |
| | Pole weight | | g | approx. 115 g | |
| Combination with aux. elements | Auxiliary contact | | | Yes | |
| | Signal contact | | | Yes | |
| | Shunt trip | | | Yes | |
| | Undervoltage release | | | Yes | |
| | Motor Operating Device | | | Yes | |
| | Integrated auxiliary switch | | | Yes | |

① Prior to connection of aluminium conductors (>= 4$mm^2$) ensure that their contact points are cleaned, brushed and coated with grease.
Connection of aluminium conductors is not specifically approved by third party.
All approvals according to the product standards are carried out with copper conductors.
② Nm-values acc. IEC / in-lbs.-values acc. UL

| | S 200 M UC | S 200 P | S 200 PR | S 200 S | SU 200 M | | SU 200 PR | S 200 UDC |
|---|---|---|---|---|---|---|---|---|
| | | | Ring Tongue Terminal | Failsafe bi-directional cylinder-lift terminal | | | Ring Tongue Terminal | -- |
| | | 25 $mm^2$ / 25 $mm^2$ | | 35 $mm^2$ / 35 $mm^2$ | | | | -- |
| | | 16 $mm^2$ / 16 $mm^2$ | 25 $mm^2$ / 25 $mm^2$ | 25 $mm^2$ / 25 $mm^2$ | | | | -- |
| | | 18 - 4 AWG | | | | | 18 - 4 AWG | -- |
| | | | | | | | | -- |
| | | 18 - 8 AWG | | | | | | -- |
| | | 2.8 Nm | | | | | | -- |
| | | 25 in-lbs. | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Please note polarity of device | optional | | bottom | optional | | top or bottom | Please note polarity of device |
| | | | | | -- | | Mounting dimension 1 | |
| | 85 x 69 x 17.5 mm | 88 x 69 x 17.5 mm | 100 x 69 x 17.5 mm | 89 x 69 x 17.5 mm | 92 x 71 x 17.5 mm | 100 x 71 x 17.5 mm | 115 x 69 x 17.5 mm | 92 x 71 x 17.5 mm |
| | approx. 125 g | approx. 140 g | approx. 125 g | approx. 100 g | approx. 140g | approx. 140g | approx. 125 g | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | No | | | |
| | | | No | No | Yes | No | No | |
| | | | No | Yes | No | | | |

# MCBs
# S 200 series 6000 B characteristic






S 201




S 202




S 203

## S 200 B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 464901 | S201-B6 | 2CDS251001R0065 | | 0.125 | 10 |
| | 10 | 463805 | S201-B10 | 2CDS251001R0105 | | 0.125 | 10 |
| | 13 | 465007 | S201-B13 | 2CDS251001R0135 | | 0.125 | 10 |
| | 16 | 578639 | S201-B16 | 2CDS251001R1165 | | 0.125 | 10 |
| | 20 ① | 465106 | S201-B20 | 2CDS251001R0205 | | 0.125 | 10 |
| | 25 | 465205 | S201-B25 | 2CDS251001R0255 | | 0.125 | 10 |
| | 32 ② | 465304 | S201-B32 | 2CDS251001R0325 | | 0.125 | 10 |
| | 40 ③ | 465403 | S201-B40 | 2CDS251001R0405 | | 0.125 | 10 |
| | 50 | 550925 | S201-B50 | 2CDS251001R0505 | | 0.125 | 10 |
| | 63 | 550932 | S201-B63 | 2CDS251001R0635 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 6 | 466400 | S202-B6 | 2CDS252001R0065 | | 0.250 | 5 |
| | 10 | 466608 | S202-B10 | 2CDS252001R0105 | | 0.250 | 5 |
| | 13 | 466707 | S202-B13 | 2CDS252001R0135 | | 0.250 | 5 |
| | 16 | 466905 | S202-B16 | 2CDS252001R0165 | | 0.250 | 5 |
| | 20 | 467001 | S202-B20 | 2CDS252001R0205 | | 0.250 | 5 |
| | 25 | 467100 | S202-B25 | 2CDS252001R0255 | | 0.250 | 5 |
| | 32 | 467209 | S202-B32 | 2CDS252001R0325 | | 0.250 | 5 |
| | 40 | 467407 | S202-B40 | 2CDS252001R0405 | | 0.250 | 5 |
| | 50 | 550949 | S202-B50 | 2CDS252001R0505 | | 0.250 | 5 |
| | 63 | 550956 | S202-B63 | 2CDS252001R0635 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 6 | 468602 | S203-B6 | 2CDS253001R0065 | | 0.375 | 1 |
| | 10 | 468701 | S203-B10 | 2CDS253001R0105 | | 0.375 | 1 |
| | 13 | 468909 | S203-B13 | 2CDS253001R0135 | | 0.375 | 1 |
| | 16 | 469005 | S203-B16 | 2CDS253001R0165 | | 0.375 | 1 |
| | 20 ① | 469104 | S203-B20 | 2CDS253001R0205 | | 0.375 | 1 |
| | 25 | 469203 | S203-B25 | 2CDS253001R0255 | | 0.375 | 1 |
| | 32 ② | 469302 | S203-B32 | 2CDS253001R0325 | | 0.375 | 1 |
| | 40 ③ | 469401 | S203-B40 | 2CDS253001R0405 | | 0.375 | 1 |
| | 50 | 550963 | S203-B50 | 2CDS253001R0505 | | 0.375 | 1 |
| | 63 | 550970 | S203-B63 | 2CDS253001R0635 | | 0.375 | 1 |

**① suitable for flow-type heaters 12 kW**
**② suitable for flow-type heaters 18 kW**
**③ suitable for flow-type heaters 21, 24 and 27 kW**

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Busbar systems p.4/25




S 204

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 6 | 528955 | S204-B6 | 2CDS254001R0065 | | 0.500 | 1 |
| | 10 | 528962 | S204-B10 | 2CDS254001R0105 | | 0.500 | 1 |
| | 13 | 528979 | S204-B13 | 2CDS254001R0135 | | 0.500 | 1 |
| | 16 | 528986 | S204-B16 | 2CDS254001R0165 | | 0.500 | 1 |
| | 20 | 528993 | S204-B20 | 2CDS254001R0205 | | 0.500 | 1 |
| | 25 | 529006 | S204-B25 | 2CDS254001R0255 | | 0.500 | 1 |
| | 32 | 529013 | S204-B32 | 2CDS254001R0325 | | 0.500 | 1 |
| | 40 | 529020 | S204-B40 | 2CDS254001R0405 | | 0.500 | 1 |
| | 50 | 550987 | S204-B50 | 2CDS254001R0505 | | 0.500 | 1 |
| | 63 | 550994 | S204-B63 | 2CDS254001R0635 | | 0.500 | 1 |




S 201 NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 6 | 531580 | S201-B6NA | 2CDS251103R0065 | | 0.250 | 5 |
| | 10 | 531597 | S201-B10NA | 2CDS251103R0105 | | 0.250 | 5 |
| | 13 | 531603 | S201-B13NA | 2CDS251103R0135 | | 0.250 | 5 |
| | 16 | 531610 | S201-B16NA | 2CDS251103R0165 | | 0.250 | 5 |
| | 20 ① | 531627 | S201-B20NA | 2CDS251103R0205 | | 0.250 | 5 |
| | 25 | 531634 | S201-B25NA | 2CDS251103R0255 | | 0.250 | 5 |
| | 32 ② | 531641 | S201-B32NA | 2CDS251103R0325 | | 0.250 | 5 |
| | 40 ③ | 531658 | S201-B40NA | 2CDS251103R0405 | | 0.250 | 5 |
| | 50 | 536158 | S201-B50NA | 2CDS251103R0505 | | 0.250 | 5 |
| | 63 | 536141 | S201-B63NA | 2CDS251103R0635 | | 0.250 | 5 |




S 203 NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 6 | 532280 | S203-B6NA | 2CDS253103R0065 | | 0.500 | 1 |
| | 10 | 532297 | S203-B10NA | 2CDS253103R0105 | | 0.500 | 1 |
| | 13 | 532303 | S203-B13NA | 2CDS253103R0135 | | 0.500 | 1 |
| | 16 | 532310 | S203-B16NA | 2CDS253103R0165 | | 0.500 | 1 |
| | 20 ① | 532327 | S203-B20NA | 2CDS253103R0205 | | 0.500 | 1 |
| | 25 | 532334 | S203-B25NA | 2CDS253103R0255 | | 0.500 | 1 |
| | 32 ② | 532341 | S203-B32NA | 2CDS253103R0325 | | 0.500 | 1 |
| | 40 ③ | 532358 | S203-B40NA | 2CDS253103R0405 | | 0.500 | 1 |
| | 50 | 536165 | S203-B50NA | 2CDS253103R0505 | | 0.580 | 1 |
| | 63 | 536172 | S203-B63NA | 2CDS253103R0635 | | 0.580 | 1 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
# S 200 series 6000 C characteristic






S 201




S 202

## S 200 C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 523295 | S201-C0.5 | 2CDS251001R0984 | | 0.125 | 10 |
| | 1 | 523318 | S201-C1 | 2CDS251001R0014 | | 0.125 | 10 |
| | 1.6 | 523301 | S201-C1.6 | 2CDS251001R0974 | | 0.125 | 10 |
| | 2 | 523325 | S201-C2 | 2CDS251001R0024 | | 0.125 | 10 |
| | 3 | 523332 | S201-C3 | 2CDS251001R0034 | | 0.125 | 10 |
| | 4 | 523349 | S201-C4 | 2CDS251001R0044 | | 0.125 | 10 |
| | 6 | 464000 | S201-C6 | 2CDS251001R0064 | | 0.125 | 10 |
| | 8 | 464109 | S201-C8 | 2CDS251001R0084 | | 0.125 | 10 |
| | 10 | 464208 | S201-C10 | 2CDS251001R0104 | | 0.125 | 10 |
| | 13 | 464307 | S201-C13 | 2CDS251001R0134 | | 0.125 | 10 |
| | 16 | 464406 | S201-C16 | 2CDS251001R0164 | | 0.125 | 10 |
| | 20 ① | 464505 | S201-C20 | 2CDS251001R0204 | | 0.125 | 10 |
| | 25 | 464604 | S201-C25 | 2CDS251001R0254 | | 0.125 | 10 |
| | 32 ② | 464703 | S201-C32 | 2CDS251001R0324 | | 0.125 | 10 |
| | 40 ③ | 464802 | S201-C40 | 2CDS251001R0404 | | 0.125 | 10 |
| | 50 | 551007 | S201-C50 | 2CDS251001R0504 | | 0.125 | 10 |
| | 63 | 551014 | S201-C63 | 2CDS251001R0634 | | 0.125 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 523356 | S202-C0.5 | 2CDS252001R0984 | | 0.250 | 5 |
| | 1 | 523363 | S202-C1 | 2CDS252001R0014 | | 0.250 | 5 |
| | 1.6 | 523370 | S202-C1.6 | 2CDS252001R0974 | | 0.250 | 5 |
| | 2 | 523387 | S202-C2 | 2CDS252001R0024 | | 0.250 | 5 |
| | 3 | 523394 | S202-C3 | 2CDS252001R0034 | | 0.250 | 5 |
| | 4 | 523400 | S202-C4 | 2CDS252001R0044 | | 0.250 | 5 |
| | 6 | 465502 | S202-C6 | 2CDS252001R0064 | | 0.250 | 5 |
| | 8 | 465601 | S202-C8 | 2CDS252001R0084 | | 0.250 | 5 |
| | 10 | 465700 | S202-C10 | 2CDS252001R0104 | | 0.250 | 5 |
| | 13 | 465809 | S202-C13 | 2CDS252001R0134 | | 0.250 | 5 |
| | 16 | 465908 | S202-C16 | 2CDS252001R0164 | | 0.250 | 5 |
| | 20 ① | 466004 | S202-C20 | 2CDS252001R0204 | | 0.250 | 5 |
| | 25 | 466103 | S202-C25 | 2CDS252001R0254 | | 0.250 | 5 |
| | 32 ② | 466202 | S202-C32 | 2CDS252001R0324 | | 0.250 | 5 |
| | 40 ③ | 466301 | S202-C40 | 2CDS252001R0404 | | 0.250 | 5 |
| | 50 | 551045 | S202-C50 | 2CDS252001R0504 | | 0.250 | 5 |
| | 63 | 551052 | S202-C63 | 2CDS252001R0634 | | 0.250 | 5 |

**① suitable for flow-type heaters 12 kW**
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Busbar systems p.4/25




S 203




S 204

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 1 | 523424 | S203-C1 | 2CDS253001R0014 | | 0.375 | 1 |
| | 1.6 | 523431 | S203-C1.6 | 2CDS253001R0974 | | 0.375 | 1 |
| | 2 | 523448 | S203-C2 | 2CDS253001R0024 | | 0.375 | 1 |
| | 3 | 523455 | S203-C3 | 2CDS253001R0034 | | 0.375 | 1 |
| | 4 | 523462 | S203-C4 | 2CDS253001R0044 | | 0.375 | 1 |
| | 6 | 467506 | S203-C6 | 2CDS253001R0064 | | 0.375 | 1 |
| | 8 | 467605 | S203-C8 | 2CDS253001R0084 | | 0.375 | 1 |
| | 10 | 467803 | S203-C10 | 2CDS253001R0104 | | 0.375 | 1 |
| | 13 | 467902 | S203-C13 | 2CDS253001R0134 | | 0.375 | 1 |
| | 16 | 468008 | S203-C16 | 2CDS253001R0164 | | 0.375 | 1 |
| | 20 ① | 468107 | S203-C20 | 2CDS253001R0204 | | 0.375 | 1 |
| | 25 | 468206 | S203-C25 | 2CDS253001R0254 | | 0.375 | 1 |
| | 32 ② | 468305 | S203-C32 | 2CDS253001R0324 | | 0.375 | 1 |
| | 40 ③ | 468404 | S203-C40 | 2CDS253001R0404 | | 0.375 | 1 |
| | 50 | 551069 | S203-C50 | 2CDS253001R0504 | | 0.375 | 1 |
| | 63 | 551076 | S203-C63 | 2CDS253001R0634 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 529112 | S204-C0.5 | 2CDS254001R0984 | | 0.500 | 1 |
| | 1 | 529129 | S204-C1 | 2CDS254001R0014 | | 0.500 | 1 |
| | 1.6 | 529136 | S204-C1.6 | 2CDS254001R0974 | | 0.500 | 1 |
| | 2 | 529143 | S204-C2 | 2CDS254001R0024 | | 0.500 | 1 |
| | 3 | 529150 | S204-C3 | 2CDS254001R0034 | | 0.500 | 1 |
| | 4 | 529167 | S204-C4 | 2CDS254001R0044 | | 0.500 | 1 |
| | 6 | 529174 | S204-C6 | 2CDS254001R0064 | | 0.500 | 1 |
| | 8 | 529181 | S204-C8 | 2CDS254001R0084 | | 0.500 | 1 |
| | 10 | 529198 | S204-C10 | 2CDS254001R0104 | | 0.500 | 1 |
| | 13 | 529204 | S204-C13 | 2CDS254001R0134 | | 0.500 | 1 |
| | 16 | 529211 | S204-C16 | 2CDS254001R0164 | | 0.500 | 1 |
| | 20 ① | 529228 | S204-C20 | 2CDS254001R0204 | | 0.500 | 1 |
| | 25 | 529235 | S204-C25 | 2CDS254001R0254 | | 0.500 | 1 |
| | 32 ② | 529242 | S204-C32 | 2CDS254001R0324 | | 0.500 | 1 |
| | 40 ③ | 529259 | S204-C40 | 2CDS254001R0404 | | 0.500 | 1 |
| | 50 | 551106 | S204-C50 | 2CDS254001R0504 | | 0.500 | 1 |
| | 63 | 551113 | S204-C63 | 2CDS254001R0634 | | 0.500 | 1 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
## S 200 series 6000 C characteristic




S 201 NA




S 203 NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 531665 | S201-C0.5NA | 2CDS251103R0984 | | 0.250 | 5 |
| | 1 | 531672 | S201-C1NA | 2CDS251103R0014 | | 0.250 | 5 |
| | 1.6 | 531689 | S201-C1.6NA | 2CDS251103R0974 | | 0.250 | 5 |
| | 2 | 531696 | S201-C2NA | 2CDS251103R0024 | | 0.250 | 5 |
| | 3 | 531702 | S201-C3NA | 2CDS251103R0034 | | 0.250 | 5 |
| | 4 | 531726 | S201-C4NA | 2CDS251103R0044 | | 0.250 | 5 |
| | 6 | 531733 | S201-C6NA | 2CDS251103R0064 | | 0.250 | 5 |
| | 8 | 531740 | S201-C8NA | 2CDS251103R0084 | | 0.250 | 5 |
| | 10 | 531757 | S201-C10NA | 2CDS251103R0104 | | 0.250 | 5 |
| | 13 | 531764 | S201-C13NA | 2CDS251103R0134 | | 0.250 | 5 |
| | 16 | 531771 | S201-C16NA | 2CDS251103R0164 | | 0.250 | 5 |
| | 20 ① | 531788 | S201-C20NA | 2CDS251103R0204 | | 0.250 | 5 |
| | 25 | 531795 | S201-C25NA | 2CDS251103R0254 | | 0.250 | 5 |
| | 32 ② | 531801 | S201-C32NA | 2CDS251103R0324 | | 0.250 | 5 |
| | 40 ③ | 531818 | S201-C40NA | 2CDS251103R0404 | | 0.250 | 5 |
| | 50 | 551021 | S201-C50NA | 2CDS251103R0504 | | 0.290 | 5 |
| | 63 | 551038 | S201-C63NA | 2CDS251103R0634 | | 0.290 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 532365 | S203-C0.5NA | 2CDS253103R0984 | | 0.500 | 1 |
| | 1 | 532372 | S203-C1NA | 2CDS253103R0014 | | 0.500 | 1 |
| | 1.6 | 532389 | S203-C1.6NA | 2CDS253103R0974 | | 0.500 | 1 |
| | 2 | 532402 | S203-C2NA | 2CDS253103R0024 | | 0.500 | 1 |
| | 3 | 532419 | S203-C3NA | 2CDS253103R0034 | | 0.500 | 1 |
| | 4 | 532426 | S203-C4NA | 2CDS253103R0044 | | 0.500 | 1 |
| | 6 | 532433 | S203-C6NA | 2CDS253103R0064 | | 0.500 | 1 |
| | 8 | 532440 | S203-C8NA | 2CDS253103R0084 | | 0.500 | 1 |
| | 10 | 532457 | S203-C10NA | 2CDS253103R0104 | | 0.500 | 1 |
| | 13 | 532464 | S203-C13NA | 2CDS253103R0134 | | 0.500 | 1 |
| | 16 | 532471 | S203-C16NA | 2CDS253103R0164 | | 0.500 | 1 |
| | 20 ① | 532488 | S203-C20NA | 2CDS253103R0204 | | 0.500 | 1 |
| | 25 | 532495 | S203-C25NA | 2CDS253103R0254 | | 0.500 | 1 |
| | 32 ② | 532501 | S203-C32NA | 2CDS253103R0324 | | 0.500 | 1 |
| | 40 ① | 532518 | S203-C40NA | 2CDS253103R0404 | | 0.500 | 1 |
| | 50 | 551083 | S203-C50NA | 2CDS253103R0504 | | 0.580 | 1 |
| | 63 | 551090 | S203-C63NA | 2CDS253103R0634 | | 0.580 | 1 |

① **suitable for flow-type heaters 12 kW**
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# MCBs
# S 200 series 6000 D characteristic




S 201




S 202

## S 200 D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 529938 | S201-D0.5 | 2CDS251001R0981 | | 0.125 | 10 |
| | 1 | 529945 | S201-D1 | 2CDS251001R0011 | | 0.125 | 10 |
| | 1.6 | 529952 | S201-D1.6 | 2CDS251001R0971 | | 0.125 | 10 |
| | 2 | 529969 | S201-D2 | 2CDS251001R0021 | | 0.125 | 10 |
| | 3 | 529976 | S201-D3 | 2CDS251001R0031 | | 0.125 | 10 |
| | 4 | 529983 | S201-D4 | 2CDS251001R0041 | | 0.125 | 10 |
| | 6 | 529990 | S201-D6 | 2CDS251001R0061 | | 0.125 | 10 |
| | 8 | 530002 | S201-D8 | 2CDS251001R0081 | | 0.125 | 10 |
| | 10 | 530019 | S201-D10 | 2CDS251001R0101 | | 0.125 | 10 |
| | 13 | 530026 | S201-D13 | 2CDS251001R0131 | | 0.125 | 10 |
| | 16 | 530033 | S201-D16 | 2CDS251001R0161 | | 0.125 | 10 |
| | 20 ① | 530040 | S201-D20 | 2CDS251001R0201 | | 0.125 | 10 |
| | 25 | 530057 | S201-D25 | 2CDS251001R0251 | | 0.125 | 10 |
| | 32 ② | 530064 | S201-D32 | 2CDS251001R0321 | | 0.125 | 10 |
| | 40 ③ | 530071 | S201-D40 | 2CDS251001R0401 | | 0.125 | 10 |
| | 50 | 551991 | S201-D50 | 2CDS251001R0501 | | 0.125 | 10 |
| | 63 | 552004 | S201-D63 | 2CDS251001R0631 | | 0.125 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 530484 | S202-D0.5 | 2CDS252001R0981 | | 0.250 | 5 |
| | 1 | 530491 | S202-D1 | 2CDS252001R0011 | | 0.250 | 5 |
| | 1.6 | 530507 | S202-D1.6 | 2CDS252001R0971 | | 0.250 | 5 |
| | 2 | 530514 | S202-D2 | 2CDS252001R0021 | | 0.250 | 5 |
| | 3 | 530521 | S202-D3 | 2CDS252001R0031 | | 0.250 | 5 |
| | 4 | 530538 | S202-D4 | 2CDS252001R0041 | | 0.250 | 5 |
| | 6 | 530545 | S202-D6 | 2CDS252001R0061 | | 0.250 | 5 |
| | 8 | 530552 | S202-D8 | 2CDS252001R0081 | | 0.250 | 5 |
| | 10 | 530583 | S202-D10 | 2CDS252001R0101 | | 0.250 | 5 |
| | 13 | 530606 | S202-D13 | 2CDS252001R0131 | | 0.250 | 5 |
| | 16 | 530613 | S202-D16 | 2CDS252001R0161 | | 0.250 | 5 |
| | 20 | 530637 | S202-D20 | 2CDS252001R0201 | | 0.250 | 5 |
| | 25 | 530644 | S202-D25 | 2CDS252001R0251 | | 0.250 | 5 |
| | 32 | 530651 | S202-D32 | 2CDS252001R0321 | | 0.250 | 5 |
| | 40 | 530668 | S202-D40 | 2CDS252001R0401 | | 0.250 | 5 |
| | 50 | 552035 | S202-D50 | 2CDS252001R0501 | | 0.250 | 5 |
| | 63 | 552042 | S202-D63 | 2CDS252001R0631 | | 0.250 | 5 |

① **suitable for flow-type heaters 12 kW**
② **suitable for flow-type heaters 18 kW**
③ **suitable for flow-type heaters 21, 24 and 27 kW**

# MCBs
## S 200 series 6000 D characteristic






S 203




S 204

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 530811 | S203-D0.5 | 2CDS253001R0981 | | 0.375 | 1 |
| | 1 | 530828 | S203-D1 | 2CDS253001R0011 | | 0.375 | 1 |
| | 1.6 | 530835 | S203-D1.6 | 2CDS253001R0971 | | 0.375 | 1 |
| | 2 | 530842 | S203-D2 | 2CDS253001R0021 | | 0.375 | 1 |
| | 3 | 530859 | S203-D3 | 2CDS253001R0031 | | 0.375 | 1 |
| | 4 | 530866 | S203-D4 | 2CDS253001R0041 | | 0.375 | 1 |
| | 6 | 530880 | S203-D6 | 2CDS253001R0061 | | 0.375 | 1 |
| | 8 | 530897 | S203-D8 | 2CDS253001R0081 | | 0.375 | 1 |
| | 10 | 530903 | S203-D10 | 2CDS253001R0101 | | 0.375 | 1 |
| | 13 | 530910 | S203-D13 | 2CDS253001R0131 | | 0.375 | 1 |
| | 16 | 530927 | S203-D16 | 2CDS253001R0161 | | 0.375 | 1 |
| | 20 ① | 530934 | S203-D20 | 2CDS253001R0201 | | 0.375 | 1 |
| | 25 | 530941 | S203-D25 | 2CDS253001R0251 | | 0.375 | 1 |
| | 32 ② | 530958 | S203-D32 | 2CDS253001R0321 | | 0.375 | 1 |
| | 40 ③ | 530965 | S203-D40 | 2CDS253001R0401 | | 0.375 | 1 |
| | 50 | 552059 | S203-D50 | 2CDS253001R0501 | | 0.375 | 1 |
| | 63 | 552066 | S203-D63 | 2CDS253001R0631 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 531122 | S204-D0.5 | 2CDS254001R0981 | | 0.500 | 1 |
| | 1 | 531139 | S204-D1 | 2CDS254001R0011 | | 0.500 | 1 |
| | 1.6 | 531146 | S204-D1.6 | 2CDS254001R0971 | | 0.500 | 1 |
| | 2 | 531153 | S204-D2 | 2CDS254001R0021 | | 0.500 | 1 |
| | 3 | 531160 | S204-D3 | 2CDS254001R0031 | | 0.500 | 1 |
| | 4 | 531177 | S204-D4 | 2CDS254001R0041 | | 0.500 | 1 |
| | 6 | 531184 | S204-D6 | 2CDS254001R0061 | | 0.500 | 1 |
| | 8 | 531191 | S204-D8 | 2CDS254001R0081 | | 0.500 | 1 |
| | 10 | 531207 | S204-D10 | 2CDS254001R0101 | | 0.500 | 1 |
| | 13 | 531214 | S204-D13 | 2CDS254001R0131 | | 0.500 | 1 |
| | 16 | 531221 | S204-D16 | 2CDS254001R0161 | | 0.500 | 1 |
| | 20 | 531238 | S204-D20 | 2CDS254001R0201 | | 0.500 | 1 |
| | 25 | 531290 | S204-D25 | 2CDS254001R0251 | | 0.500 | 1 |
| | 32 | 531306 | S204-D32 | 2CDS254001R0321 | | 0.500 | 1 |
| | 40 | 531313 | S204-D40 | 2CDS254001R0401 | | 0.500 | 1 |
| | 50 | 552097 | S204-D50 | 2CDS254001R0501 | | 0.500 | 1 |
| | 63 | 552103 | S204-D63 | 2CDS254001R0631 | | 0.500 | 1 |

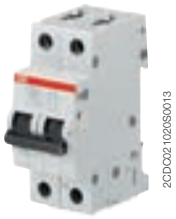
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S 201 NA




S 203 NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 531979 | S201-D0.5NA | 2CDS251103R0981 | | 0.250 | 5 |
| | 1 | 531986 | S201-D1NA | 2CDS251103R0011 | | 0.250 | 5 |
| | 1.6 | 531993 | S201-D1.6NA | 2CDS251103R0971 | | 0.250 | 5 |
| | 2 | 532006 | S201-D2NA | 2CDS251103R0021 | | 0.250 | 5 |
| | 3 | 532013 | S201-D3NA | 2CDS251103R0031 | | 0.250 | 5 |
| | 4 | 532020 | S201-D4NA | 2CDS251103R0041 | | 0.250 | 5 |
| | 6 | 532037 | S201-D6NA | 2CDS251103R0061 | | 0.250 | 5 |
| | 8 | 532044 | S201-D8NA | 2CDS251103R0081 | | 0.250 | 5 |
| | 10 | 532051 | S201-D10NA | 2CDS251103R0101 | | 0.250 | 5 |
| | 13 | 532068 | S201-D13NA | 2CDS251103R0131 | | 0.250 | 5 |
| | 16 | 532099 | S201-D16NA | 2CDS251103R0161 | | 0.250 | 5 |
| | 20 ① | 532105 | S201-D20NA | 2CDS251103R0201 | | 0.250 | 5 |
| | 25 | 532112 | S201-D25NA | 2CDS251103R0251 | | 0.250 | 5 |
| | 32 ② | 532129 | S201-D32NA | 2CDS251103R0321 | | 0.250 | 5 |
| | 40 ③ | 532136 | S201-D40NA | 2CDS251103R0401 | | 0.250 | 5 |
| | 50 | 552011 | S201-D50NA | 2CDS251103R0501 | | 0.290 | 5 |
| | 63 | 552028 | S201-D63NA | 2CDS251103R0631 | | 0.290 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 532761 | S203-D0.5NA | 2CDS253103R0981 | | 0.500 | 2 |
| | 1 | 532778 | S203-D1NA | 2CDS253103R0011 | | 0.500 | 2 |
| | 1.6 | 532785 | S203-D1.6NA | 2CDS253103R0971 | | 0.500 | 2 |
| | 2 | 532792 | S203-D2NA | 2CDS253103R0021 | | 0.500 | 2 |
| | 3 | 532808 | S203-D3NA | 2CDS253103R0031 | | 0.500 | 2 |
| | 4 | 532815 | S203-D4NA | 2CDS253103R0041 | | 0.500 | 2 |
| | 6 | 532822 | S203-D6NA | 2CDS253103R0061 | | 0.500 | 2 |
| | 8 | 532839 | S203-D8NA | 2CDS253103R0081 | | 0.500 | 2 |
| | 10 | 532846 | S203-D10NA | 2CDS253103R0101 | | 0.500 | 2 |
| | 13 | 532860 | S203-D13NA | 2CDS253103R0131 | | 0.500 | 2 |
| | 16 | 532877 | S203-D16NA | 2CDS253103R0161 | | 0.500 | 2 |
| | 20 ① | 532884 | S203-D20NA | 2CDS253103R0201 | | 0.500 | 2 |
| | 25 | 532891 | S203-D25NA | 2CDS253103R0251 | | 0.500 | 2 |
| | 32 ② | 532907 | S203-D32NA | 2CDS253103R0321 | | 0.500 | 2 |
| | 40 ③ | 532914 | S203-D40NA | 2CDS253103R0401 | | 0.500 | 2 |
| | 50 | 552073 | S203-D50NA | 2CDS253103R0501 | | 0.580 | 2 |
| | 63 | 552080 | S203-D63NA | 2CDS253103R0631 | | 0.580 | 2 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
# S 200 series 6000 K characteristic






S 201




S 202

## S 200 K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=10 kA**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 507196 | S201-K0.5 | 2CDS251001R0157 | | 0.125 | 10 |
| | 1 | 507202 | S201-K1 | 2CDS251001R0217 | | 0.125 | 10 |
| | 1.6 | 507219 | S201-K1.6 | 2CDS251001R0257 | | 0.125 | 10 |
| | 2 | 507226 | S201-K2 | 2CDS251001R0277 | | 0.125 | 10 |
| | 3 | 507233 | S201-K3 | 2CDS251001R0317 | | 0.125 | 10 |
| | 4 | 507240 | S201-K4 | 2CDS251001R0337 | | 0.125 | 10 |
| | 6 | 507257 | S201-K6 | 2CDS251001R0377 | | 0.125 | 10 |
| | 8 | 507264 | S201-K8 | 2CDS251001R0407 | | 0.125 | 10 |
| | 10 | 496117 | S201-K10 | 2CDS251001R0427 | | 0.125 | 10 |
| | 13 | 507271 | S201-K13 | 2CDS251001R0447 | | 0.125 | 10 |
| | 16 | 496124 | S201-K16 | 2CDS251001R0467 | | 0.125 | 10 |
| | 20 | 507288 | S201-K20 | 2CDS251001R0487 | | 0.125 | 10 |
| | 25 | 507295 | S201-K25 | 2CDS251001R0517 | | 0.125 | 10 |
| | 32 | 496131 | S201-K32 | 2CDS251001R0537 | | 0.125 | 10 |
| | 40 | 507301 | S201-K40 | 2CDS251001R0557 | | 0.125 | 10 |
| | 50 | 551120 | S201-K50 | 2CDS251001R0577 | | 0.125 | 10 |
| | 63 | 551137 | S201-K63 | 2CDS251001R0607 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | 507318 | S202-K0.5 | 2CDS252001R0157 | | 0.250 | 5 |
| | 1 | 507325 | S202-K1 | 2CDS252001R0217 | | 0.250 | 5 |
| | 1.6 | 507332 | S202-K1.6 | 2CDS252001R0257 | | 0.250 | 5 |
| | 2 | 507349 | S202-K2 | 2CDS252001R0277 | | 0.250 | 5 |
| | 3 | 507356 | S202-K3 | 2CDS252001R0317 | | 0.250 | 5 |
| | 4 | 507363 | S202-K4 | 2CDS252001R0337 | | 0.250 | 5 |
| | 6 | 507370 | S202-K6 | 2CDS252001R0377 | | 0.250 | 5 |
| | 8 | 507387 | S202-K8 | 2CDS252001R0407 | | 0.250 | 5 |
| | 10 | 507394 | S202-K10 | 2CDS252001R0427 | | 0.250 | 5 |
| | 13 | 507400 | S202-K13 | 2CDS252001R0447 | | 0.250 | 5 |
| | 16 | 507417 | S202-K16 | 2CDS252001R0467 | | 0.250 | 5 |
| | 20 | 507424 | S202-K20 | 2CDS252001R0487 | | 0.250 | 5 |
| | 25 | 507431 | S202-K25 | 2CDS252001R0517 | | 0.250 | 5 |
| | 32 | 507448 | S202-K32 | 2CDS252001R0537 | | 0.250 | 5 |
| | 40 | 507455 | S202-K40 | 2CDS252001R0557 | | 0.250 | 5 |
| | 50 | 551168 | S202-K50 | 2CDS252001R0577 | | 0.250 | 5 |
| | 63 | 551175 | S202-K63 | 2CDS252001R0607 | | 0.250 | 5 |

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S 203




S 204

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 507462 | S203-K0.5 | 2CDS253001R0157 | | 0.375 | 1 |
| | 1 | 507479 | S203-K1 | 2CDS253001R0217 | | 0.375 | 1 |
| | 1.6 | 507486 | S203-K1.6 | 2CDS253001R0257 | | 0.375 | 1 |
| | 2 | 507493 | S203-K2 | 2CDS253001R0277 | | 0.375 | 1 |
| | 3 | 507509 | S203-K3 | 2CDS253001R0317 | | 0.375 | 1 |
| | 4 | 507516 | S203-K4 | 2CDS253001R0337 | | 0.375 | 1 |
| | 6 | 507523 | S203-K6 | 2CDS253001R0377 | | 0.375 | 1 |
| | 8 | 507530 | S203-K8 | 2CDS253001R0407 | | 0.375 | 1 |
| | 10 | 496148 | S203-K10 | 2CDS253001R0427 | | 0.375 | 1 |
| | 13 | 507547 | S203-K13 | 2CDS253001R0447 | | 0.375 | 1 |
| | 16 | 496155 | S203-K16 | 2CDS253001R0467 | | 0.375 | 1 |
| | 20 | 507554 | S203-K20 | 2CDS253001R0487 | | 0.375 | 1 |
| | 25 | 507561 | S203-K25 | 2CDS253001R0517 | | 0.375 | 1 |
| | 32 | 496162 | S203-K32 | 2CDS253001R0537 | | 0.375 | 1 |
| | 40 | 507578 | S203-K40 | 2CDS253001R0557 | | 0.375 | 1 |
| | 50 | 551182 | S203-K50 | 2CDS253001R0577 | | 0.375 | 1 |
| | 63 | 551199 | S203-K63 | 2CDS253001R0607 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 529266 | S204-K0.5 | 2CDS254001R0157 | | 0.500 | 1 |
| | 1 | 529273 | S204-K1 | 2CDS254001R0217 | | 0.500 | 1 |
| | 1.6 | 529280 | S204-K1.6 | 2CDS254001R0257 | | 0.500 | 1 |
| | 2 | 529297 | S204-K2 | 2CDS254001R0277 | | 0.500 | 1 |
| | 3 | 529303 | S204-K3 | 2CDS254001R0317 | | 0.500 | 1 |
| | 4 | 529310 | S204-K4 | 2CDS254001R0337 | | 0.500 | 1 |
| | 6 | 529327 | S204-K6 | 2CDS254001R0377 | | 0.500 | 1 |
| | 8 | 529334 | S204-K8 | 2CDS254001R0407 | | 0.500 | 1 |
| | 10 | 529341 | S204-K10 | 2CDS254001R0427 | | 0.500 | 1 |
| | 13 | 529358 | S204-K13 | 2CDS254001R0447 | | 0.500 | 1 |
| | 16 | 529365 | S204-K16 | 2CDS254001R0467 | | 0.500 | 1 |
| | 20 | 529372 | S204-K20 | 2CDS254001R0487 | | 0.500 | 1 |
| | 25 | 529389 | S204-K25 | 2CDS254001R0517 | | 0.500 | 1 |
| | 32 | 529396 | S204-K32 | 2CDS254001R0537 | | 0.500 | 1 |
| | 40 | 529402 | S204-K40 | 2CDS254001R0557 | | 0.500 | 1 |
| | 50 | 551229 | S204-K50 | 2CDS254001R0577 | | 0.500 | 1 |
| | 63 | 551236 | S204-K63 | 2CDS254001R0607 | | 0.500 | 1 |

# MCBs
## S 200 series 6000 K characteristic






S 201 NA




S 203 NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 531825 | S201-K0.5NA | 2CDS251103R0157 | | 0.250 | 5 |
| | 1 | 531832 | S201-K1NA | 2CDS251103R0217 | | 0.250 | 5 |
| | 1.6 | 531849 | S201-K1.6NA | 2CDS251103R0257 | | 0.250 | 5 |
| | 2 | 531856 | S201-K2NA | 2CDS251103R0277 | | 0.250 | 5 |
| | 3 | 531863 | S201-K3NA | 2CDS251103R0317 | | 0.250 | 5 |
| | 4 | 531870 | S201-K4NA | 2CDS251103R0337 | | 0.250 | 5 |
| | 6 | 531887 | S201-K6NA | 2CDS251103R0377 | | 0.250 | 5 |
| | 8 | 531894 | S201-K8NA | 2CDS251103R0407 | | 0.250 | 5 |
| | 10 | 531900 | S201-K10NA | 2CDS251103R0427 | | 0.250 | 5 |
| | 13 | 531917 | S201-K13NA | 2CDS251103R0447 | | 0.250 | 5 |
| | 16 | 531924 | S201-K16NA | 2CDS251103R0467 | | 0.250 | 5 |
| | 20 | 531931 | S201-K20NA | 2CDS251103R0487 | | 0.250 | 5 |
| | 25 | 531948 | S201-K25NA | 2CDS251103R0517 | | 0.250 | 5 |
| | 32 | 531955 | S201-K32NA | 2CDS251103R0537 | | 0.250 | 5 |
| | 40 | 531962 | S201-K40NA | 2CDS251103R0557 | | 0.250 | 5 |
| | 50 | 551144 | S201-K50NA | 2CDS251103R0577 | | 0.250 | 5 |
| | 63 | 551151 | S201-K63NA | 2CDS251103R0607 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 532617 | S203-K0.5NA | 2CDS253103R0157 | | 0.500 | 1 |
| | 1 | 532624 | S203-K1NA | 2CDS253103R0217 | | 0.500 | 1 |
| | 1.6 | 532631 | S203-K1.6NA | 2CDS253103R0257 | | 0.500 | 1 |
| | 2 | 532648 | S203-K2NA | 2CDS253103R0277 | | 0.500 | 1 |
| | 3 | 532655 | S203-K3NA | 2CDS253103R0317 | | 0.500 | 1 |
| | 4 | 532662 | S203-K4NA | 2CDS253103R0337 | | 0.500 | 1 |
| | 6 | 532679 | S203-K6NA | 2CDS253103R0377 | | 0.500 | 1 |
| | 8 | 532686 | S203-K8NA | 2CDS253103R0407 | | 0.500 | 1 |
| | 10 | 532693 | S203-K10NA | 2CDS253103R0427 | | 0.500 | 1 |
| | 13 | 532709 | S203-K13NA | 2CDS253103R0447 | | 0.500 | 1 |
| | 16 | 532716 | S203-K16NA | 2CDS253103R0467 | | 0.500 | 1 |
| | 20 | 532723 | S203-K20NA | 2CDS253103R0487 | | 0.500 | 1 |
| | 25 | 532730 | S203-K25NA | 2CDS253103R0517 | | 0.500 | 1 |
| | 32 | 532747 | S203-K32NA | 2CDS253103R0537 | | 0.500 | 1 |
| | 40 | 532754 | S203-K40NA | 2CDS253103R0557 | | 0.500 | 1 |
| | 50 | 551205 | S203-K50NA | 2CDS253103R0577 | | 0.500 | 1 |
| | 63 | 551212 | S203-K63NA | 2CDS253103R0607 | | 0.500 | 1 |

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# MCBs
# S 200 series 6000 Z characteristic




S 201




S 202

## S 200 Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=10 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 530309 | S201-Z0.5 | 2CDS251001R0158 | | 0.125 | 10 |
| | 1 | 530330 | S201-Z1 | 2CDS251001R0218 | | 0.125 | 10 |
| | 1.6 | 530347 | S201-Z1.6 | 2CDS251001R0258 | | 0.125 | 10 |
| | 2 | 530354 | S201-Z2 | 2CDS251001R0278 | | 0.125 | 10 |
| | 3 | 530361 | S201-Z3 | 2CDS251001R0318 | | 0.125 | 10 |
| | 4 | 530378 | S201-Z4 | 2CDS251001R0338 | | 0.125 | 10 |
| | 6 | 530408 | S201-Z6 | 2CDS251001R0378 | | 0.125 | 10 |
| | 8 | 530415 | S201-Z8 | 2CDS251001R0408 | | 0.125 | 10 |
| | 10 | 530422 | S201-Z10 | 2CDS251001R0428 | | 0.125 | 10 |
| | 16 | 530439 | S201-Z16 | 2CDS251001R0468 | | 0.125 | 10 |
| | 20 | 530446 | S201-Z20 | 2CDS251001R0488 | | 0.125 | 10 |
| | 25 | 530453 | S201-Z25 | 2CDS251001R0518 | | 0.125 | 10 |
| | 32 | 530460 | S201-Z32 | 2CDS251001R0538 | | 0.125 | 10 |
| | 40 | 530477 | S201-Z40 | 2CDS251001R0558 | | 0.125 | 10 |
| | 50 | 551915 | S201-Z50 | 2CDS251001R0578 | | 0.125 | 10 |
| | 63 | 551922 | S201-Z63 | 2CDS251001R0608 | | 0.125 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 530682 | S202-Z0.5 | 2CDS252001R0158 | | 0.250 | 5 |
| | 1 | 530675 | S202-Z1 | 2CDS252001R0218 | | 0.250 | 5 |
| | 1.6 | 530699 | S202-Z1.6 | 2CDS252001R0258 | | 0.250 | 5 |
| | 2 | 530705 | S202-Z2 | 2CDS252001R0278 | | 0.250 | 5 |
| | 3 | 530712 | S202-Z3 | 2CDS252001R0318 | | 0.250 | 5 |
| | 4 | 530729 | S202-Z4 | 2CDS252001R0338 | | 0.250 | 5 |
| | 6 | 530736 | S202-Z6 | 2CDS252001R0378 | | 0.250 | 5 |
| | 8 | 530743 | S202-Z8 | 2CDS252001R0408 | | 0.250 | 5 |
| | 10 | 530750 | S202-Z10 | 2CDS252001R0428 | | 0.250 | 5 |
| | 16 | 530767 | S202-Z16 | 2CDS252001R0468 | | 0.250 | 5 |
| | 20 | 530774 | S202-Z20 | 2CDS252001R0488 | | 0.250 | 5 |
| | 25 | 530781 | S202-Z25 | 2CDS252001R0518 | | 0.250 | 5 |
| | 32 | 530798 | S202-Z32 | 2CDS252001R0538 | | 0.250 | 5 |
| | 40 | 530804 | S202-Z40 | 2CDS252001R0558 | | 0.250 | 5 |
| | 50 | 551939 | S202-Z50 | 2CDS252001R0578 | | 0.250 | 5 |
| | 63 | 551946 | S202-Z63 | 2CDS252001R0608 | | 0.250 | 5 |

# MCBs
## S 200 series 6000 Z characteristic






S 203




S 204

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 530972 | S203-Z0.5 | 2CDS253001R0158 | | 0.375 | 1 |
| | 1 | 530989 | S203-Z1 | 2CDS253001R0218 | | 0.375 | 1 |
| | 1.6 | 530996 | S203-Z1.6 | 2CDS253001R0258 | | 0.375 | 1 |
| | 2 | 531009 | S203-Z2 | 2CDS253001R0278 | | 0.375 | 1 |
| | 3 | 531016 | S203-Z3 | 2CDS253001R0318 | | 0.375 | 1 |
| | 4 | 531023 | S203-Z4 | 2CDS253001R0338 | | 0.375 | 1 |
| | 6 | 531030 | S203-Z6 | 2CDS253001R0378 | | 0.375 | 1 |
| | 8 | 531047 | S203-Z8 | 2CDS253001R0408 | | 0.375 | 1 |
| | 10 | 531054 | S203-Z10 | 2CDS253001R0428 | | 0.375 | 1 |
| | 16 | 531061 | S203-Z16 | 2CDS253001R0468 | | 0.375 | 1 |
| | 20 | 531078 | S203-Z20 | 2CDS253001R0488 | | 0.375 | 1 |
| | 25 | 531085 | S203-Z25 | 2CDS253001R0518 | | 0.375 | 1 |
| | 32 | 531092 | S203-Z32 | 2CDS253001R0538 | | 0.375 | 1 |
| | 40 | 531108 | S203-Z40 | 2CDS253001R0558 | | 0.375 | 1 |
| | 50 | 551953 | S203-Z50 | 2CDS253001R0578 | | 0.375 | 1 |
| | 63 | 551960 | S203-Z63 | 2CDS253001R0608 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 530248 | S204-Z0.5 | 2CDS254001R0158 | | 0.500 | 1 |
| | 1 | 531320 | S204-Z1 | 2CDS254001R0218 | | 0.500 | 1 |
| | 1.6 | 531443 | S204-Z1.6 | 2CDS254001R0258 | | 0.500 | 1 |
| | 2 | 531436 | S204-Z2 | 2CDS254001R0278 | | 0.500 | 1 |
| | 3 | 531337 | S204-Z3 | 2CDS254001R0318 | | 0.500 | 1 |
| | 4 | 531344 | S204-Z4 | 2CDS254001R0338 | | 0.500 | 1 |
| | 6 | 531351 | S204-Z6 | 2CDS254001R0378 | | 0.500 | 1 |
| | 8 | 531368 | S204-Z8 | 2CDS254001R0408 | | 0.500 | 1 |
| | 10 | 531375 | S204-Z10 | 2CDS254001R0428 | | 0.500 | 1 |
| | 16 | 531382 | S204-Z16 | 2CDS254001R0468 | | 0.500 | 1 |
| | 20 | 531399 | S204-Z20 | 2CDS254001R0488 | | 0.500 | 1 |
| | 25 | 531405 | S204-Z25 | 2CDS254001R0518 | | 0.500 | 1 |
| | 32 | 531412 | S204-Z32 | 2CDS254001R0538 | | 0.500 | 1 |
| | 40 | 531429 | S204-Z40 | 2CDS254001R0558 | | 0.500 | 1 |
| | 50 | 551977 | S204-Z50 | 2CDS254001R0578 | | 0.500 | 1 |
| | 63 | 551984 | S204-Z63 | 2CDS254001R0608 | | 0.500 | 1 |

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S 201 NA




S 203 NA

## With disconnecting neutral NA

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1+NA | 0.5 | 532143 | S201-Z0.5NA | 2CDS251103R0158 | | 0.260 | 5 |
| | 1 | 532150 | S201-Z1NA | 2CDS251103R0218 | | 0.260 | 5 |
| | 1.6 | 532167 | S201-Z1.6NA | 2CDS251103R0258 | | 0.260 | 5 |
| | 2 | 532174 | S201-Z2NA | 2CDS251103R0278 | | 0.260 | 5 |
| | 3 | 532181 | S201-Z3NA | 2CDS251103R0318 | | 0.260 | 5 |
| | 4 | 532198 | S201-Z4NA | 2CDS251103R0338 | | 0.260 | 5 |
| | 6 | 532204 | S201-Z6NA | 2CDS251103R0378 | | 0.260 | 5 |
| | 8 | 532211 | S201-Z8NA | 2CDS251103R0408 | | 0.260 | 5 |
| | 10 | 532228 | S201-Z10NA | 2CDS251103R0428 | | 0.260 | 5 |
| | 16 | 532235 | S201-Z16NA | 2CDS251103R0468 | | 0.260 | 5 |
| | 20 | 532242 | S201-Z20NA | 2CDS251103R0488 | | 0.260 | 5 |
| | 25 | 532259 | S201-Z25NA | 2CDS251103R0518 | | 0.260 | 5 |
| | 32 | 532266 | S201-Z32NA | 2CDS251103R0538 | | 0.260 | 5 |
| | 40 | 532273 | S201-Z40NA | 2CDS251103R0558 | | 0.260 | 5 |
| | 50 | 552127 | S201-Z50NA | 2CDS251103R0578 | | 0.320 | 5 |
| | 63 | 552134 | S201-Z63NA | 2CDS251103R0608 | | 0.320 | 5 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3+NA | 0.5 | 53292 1 | S203-Z0.5NA | 2CDS253103R0158 | | 0.520 | 1 |
| | 1 | 53293 8 | S203-Z1NA | 2CDS253103R0218 | | 0.520 | 1 |
| | 1.6 | 53294 5 | S203-Z1.6NA | 2CDS253103R0258 | | 0.520 | 1 |
| | 2 | 53295 2 | S203-Z2NA | 2CDS253103R0278 | | 0.520 | 1 |
| | 3 | 53297 6 | S203-Z3NA | 2CDS253103R0318 | | 0.520 | 1 |
| | 4 | 53298 3 | S203-Z4NA | 2CDS253103R0338 | | 0.520 | 1 |
| | 6 | 53299 0 | S203-Z6NA | 2CDS253103R0378 | | 0.520 | 1 |
| | 8 | 53300 3 | S203-Z8NA | 2CDS253103R0408 | | 0.520 | 1 |
| | 10 | 53301 0 | S203-Z10NA | 2CDS253103R0428 | | 0.520 | 1 |
| | 16 | 53302 7 | S203-Z16NA | 2CDS253103R0468 | | 0.520 | 1 |
| | 20 | 53305 8 | S203-Z20NA | 2CDS253103R0488 | | 0.520 | 1 |
| | 25 | 53306 5 | S203-Z25NA | 2CDS253103R0518 | | 0.520 | 1 |
| | 32 | 53307 2 | S203-Z32NA | 2CDS253103R0538 | | 0.520 | 1 |
| | 40 | 53308 9 | S203-Z40NA | 2CDS253103R0558 | | 0.520 | 1 |
| | 50 | 55214 1 | S203-Z50NA | 2CDS253103R0578 | | 0.640 | 1 |
| | 63 | 55216 5 | S203-Z63NA | 2CDS253103R0608 | | 0.640 | 1 |

# MCBs
## S 200 series M 10000 B characteristic





S 201 M



S 202 M



S 203 M



S 204 M

### S 200 M-B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=10 kA**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 549424 | S201M-B6 | 2CDS271001R0065 | | 0.125 | 10 |
| | 10 | 549431 | S201M-B10 | 2CDS271001R0105 | | 0.125 | 10 |
| | 13 | 549448 | S201M-B13 | 2CDS271001R0135 | | 0.125 | 10 |
| | 16 | 549455 | S201M-B16 | 2CDS271001R0165 | | 0.125 | 10 |
| | 20 ① | 549462 | S201M-B20 | 2CDS271001R0205 | | 0.125 | 10 |
| | 25 | 549479 | S201M-B25 | 2CDS271001R0255 | | 0.125 | 10 |
| | 32 ② | 549486 | S201M-B32 | 2CDS271001R0325 | | 0.125 | 10 |
| | 40 ③ | 549493 | S201M-B40 | 2CDS271001R0405 | | 0.125 | 10 |
| | 50 | 543811 | S201M-B50 | 2CDS271001R0505 | | 0.125 | 10 |
| | 63 | 543828 | S201M-B63 | 2CDS271001R0635 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 6 | 549585 | S202M-B6 | 2CDS272001R0065 | | 0.250 | 5 |
| | 10 | 549592 | S202M-B10 | 2CDS272001R0105 | | 0.250 | 5 |
| | 13 | 549608 | S202M-B13 | 2CDS272001R0135 | | 0.250 | 5 |
| | 16 | 549615 | S202M-B16 | 2CDS272001R0165 | | 0.250 | 5 |
| | 20 | 549622 | S202M-B20 | 2CDS272001R0205 | | 0.250 | 5 |
| | 25 | 549639 | S202M-B25 | 2CDS272001R0255 | | 0.250 | 5 |
| | 32 | 549646 | S202M-B32 | 2CDS272001R0325 | | 0.250 | 5 |
| | 40 | 549653 | S202M-B40 | 2CDS272001R0405 | | 0.250 | 5 |
| | 50 | 543859 | S202M-B50 | 2CDS272001R0505 | | 0.250 | 5 |
| | 63 | 543866 | S202M-B63 | 2CDS272001R0635 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 6 | 549660 | S203M-B 6 | 2CDS273001R0065 | | 0.375 | 1 |
| | 10 | 549677 | S203M-B10 | 2CDS273001R0105 | | 0.375 | 1 |
| | 13 | 549684 | S203M-B13 | 2CDS273001R0135 | | 0.375 | 1 |
| | 16 | 549691 | S203M-B16 | 2CDS273001R0165 | | 0.375 | 1 |
| | 20 ① | 549707 | S203M-B20 | 2CDS273001R0205 | | 0.375 | 1 |
| | 25 | 549714 | S203M-B25 | 2CDS273001R0255 | | 0.375 | 1 |
| | 32 ② | 549721 | S203M-B32 | 2CDS273001R0325 | | 0.375 | 1 |
| | 40 ③ | 549738 | S203M-B40 | 2CDS273001R0405 | | 0.375 | 1 |
| | 50 | 543873 | S203M-B50 | 2CDS273001R0505 | | 0.375 | 1 |
| | 63 | 543880 | S203M-B63 | 2CDS273001R0635 | | 0.375 | 1 |

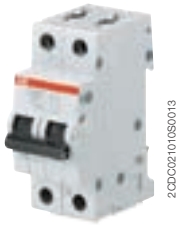
① **suitable for flow-type heaters 12 kW**
② **suitable for flow-type heaters 18 kW**
③ **suitable for flow-type heaters 21, 24 and 27 kW**

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S 201 M NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 6 | 549820 | S204M-B 6 | 2CDS274001R0065 | | 0.500 | 1 |
| | 10 | 549837 | S204M-B10 | 2CDS274001R0105 | | 0.500 | 1 |
| | 13 | 549844 | S204M-B13 | 2CDS274001R0135 | | 0.500 | 1 |
| | 16 | 549851 | S204M-B16 | 2CDS274001R0165 | | 0.500 | 1 |
| | 20 | 549868 | S204M-B20 | 2CDS274001R0205 | | 0.500 | 1 |
| | 25 | 549875 | S204M-B25 | 2CDS274001R0255 | | 0.500 | 1 |
| | 32 | 549882 | S204M-B32 | 2CDS274001R0325 | | 0.500 | 1 |
| | 40 | 549899 | S204M-B40 | 2CDS274001R0405 | | 0.500 | 1 |
| | 50 | 543910 | S204M-B50 | 2CDS274001R0505 | | 0.500 | 1 |
| | 63 | 543927 | S204M-B63 | 2CDS274001R0635 | | 0.500 | 1 |




S 203 M NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 6 | 549509 | S201M-B6NA | 2CDS271103R0065 | | 0.250 | 5 |
| | 10 | 549516 | S201M-B10NA | 2CDS271103R0105 | | 0.250 | 5 |
| | 13 | 549523 | S201M-B13NA | 2CDS271103R0135 | | 0.250 | 5 |
| | 16 | 549530 | S201M-B16NA | 2CDS271103R0165 | | 0.250 | 5 |
| | 20 ① | 549547 | S201M-B20NA | 2CDS271103R0205 | | 0.250 | 5 |
| | 25 | 549554 | S201M-B25NA | 2CDS271103R0255 | | 0.250 | 5 |
| | 32 ② | 549561 | S201M-B32NA | 2CDS271103R0325 | | 0.250 | 5 |
| | 40 ③ | 549578 | S201M-B40NA | 2CDS271103R0405 | | 0.250 | 5 |
| | 50 | 543835 | S201M-B50NA | 2CDS271103R0505 | | 0.250 | 5 |
| | 63 | 543842 | S201M-B63NA | 2CDS271103R0635 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 6 | 549745 | S203M-B6NA | 2CDS273103R0065 | | 0.500 | 1 |
| | 10 | 549752 | S203M-B10NA | 2CDS273103R0105 | | 0.500 | 1 |
| | 13 | 549769 | S203M-B13NA | 2CDS273103R0135 | | 0.500 | 1 |
| | 16 | 549776 | S203M-B16NA | 2CDS273103R0165 | | 0.500 | 1 |
| | 20 ① | 549783 | S203M-B20NA | 2CDS273103R0205 | | 0.500 | 1 |
| | 25 | 549790 | S203M-B25NA | 2CDS273103R0255 | | 0.500 | 1 |
| | 32 ② | 549806 | S203M-B32NA | 2CDS273103R0325 | | 0.500 | 1 |
| | 40 ③ | 549813 | S203M-B40NA | 2CDS273103R0405 | | 0.500 | 1 |
| | 50 | 543897 | S203M-B50NA | 2CDS273103R0505 | | 0.500 | 1 |
| | 63 | 543903 | S203M-B63NA | 2CDS273103R0635 | | 0.580 | 1 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
# S 200 series M 10000 C characteristic






S 201 M




S 202 M

## S 200 M-C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=10 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 549905 | S201M-C0.5 | 2CDS271001R0984 | | 0.125 | 10 |
| | 1 | 549929 | S201M-C1 | 2CDS271001R0014 | | 0.125 | 10 |
| | 1.6 | 549912 | S201M-C1.6 | 2CDS271001R0974 | | 0.125 | 10 |
| | 2 | 549936 | S201M-C2 | 2CDS271001R0024 | | 0.125 | 10 |
| | 3 | 549943 | S201M-C3 | 2CDS271001R0034 | | 0.125 | 10 |
| | 4 | 549950 | S201M-C4 | 2CDS271001R0044 | | 0.125 | 10 |
| | 6 | 549967 | S201M-C6 | 2CDS271001R0064 | | 0.125 | 10 |
| | 8 | 549974 | S201M-C8 | 2CDS271001R0084 | | 0.125 | 10 |
| | 10 | 549981 | S201M-C10 | 2CDS271001R0104 | | 0.125 | 10 |
| | 13 | 549998 | S201M-C13 | 2CDS271001R0134 | | 0.125 | 10 |
| | 16 | 550000 | S201M-C16 | 2CDS271001R0164 | | 0.125 | 10 |
| | 20 ① | 550017 | S201M-C20 | 2CDS271001R0204 | | 0.125 | 10 |
| | 25 | 550024 | S201M-C25 | 2CDS271001R0254 | | 0.125 | 10 |
| | 32 ② | 550031 | S201M-C32 | 2CDS271001R0324 | | 0.125 | 10 |
| | 40 ③ | 550048 | S201M-C40 | 2CDS271001R0404 | | 0.125 | 10 |
| | 50 | 543934 | S201M-C50 | 2CDS271001R0504 | | 0.125 | 10 |
| | 63 | 543941 | S201M-C63 | 2CDS271001R0634 | | 0.125 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 550208 | S202M-C0.5 | 2CDS272001R0984 | | 0.250 | 5 |
| | 1 | 550222 | S202M-C1 | 2CDS272001R0014 | | 0.250 | 5 |
| | 1.6 | 550215 | S202M-C1.6 | 2CDS272001R0974 | | 0.250 | 5 |
| | 2 | 550239 | S202M-C2 | 2CDS272001R0024 | | 0.250 | 5 |
| | 3 | 550246 | S202M-C3 | 2CDS272001R0034 | | 0.250 | 5 |
| | 4 | 550253 | S202M-C4 | 2CDS272001R0044 | | 0.250 | 5 |
| | 6 | 550260 | S202M-C6 | 2CDS272001R0064 | | 0.250 | 5 |
| | 8 | 550277 | S202M-C8 | 2CDS272001R0084 | | 0.250 | 5 |
| | 10 | 550284 | S202M-C10 | 2CDS272001R0104 | | 0.250 | 5 |
| | 13 | 550291 | S202M-C13 | 2CDS272001R0134 | | 0.250 | 5 |
| | 16 | 550307 | S202M-C16 | 2CDS272001R0164 | | 0.250 | 5 |
| | 20 | 550314 | S202M-C20 | 2CDS272001R0204 | | 0.250 | 5 |
| | 25 | 550321 | S202M-C25 | 2CDS272001R0254 | | 0.250 | 5 |
| | 32 | 550338 | S202M-C32 | 2CDS272001R0324 | | 0.250 | 5 |
| | 40 | 550345 | S202M-C40 | 2CDS272001R0404 | | 0.250 | 5 |
| | 50 | 543972 | S202M-C50 | 2CDS272001R0504 | | 0.250 | 5 |
| | 63 | 543989 | S202M-C63 | 2CDS272001R0634 | | 0.250 | 5 |

**① suitable for flow-type heaters 12 kW**
**② suitable for flow-type heaters 18 kW**
**③ suitable for flow-type heaters 21, 24 and 27 kW**

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S 203 M




S 204 M

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 550352 | S203M-C0.5 | 2CDS273001R0984 | | 0.375 | 1 |
| | 1 | 550376 | S203M-C1 | 2CDS273001R0014 | | 0.375 | 1 |
| | 1.6 | 550369 | S203M-C1.6 | 2CDS273001R0974 | | 0.375 | 1 |
| | 2 | 550383 | S203M-C2 | 2CDS273001R0024 | | 0.375 | 1 |
| | 3 | 550390 | S203M-C3 | 2CDS273001R0034 | | 0.375 | 1 |
| | 4 | 550406 | S203M-C4 | 2CDS273001R0044 | | 0.375 | 1 |
| | 6 | 550413 | S203M-C6 | 2CDS273001R0064 | | 0.375 | 1 |
| | 8 | 550420 | S203M-C8 | 2CDS273001R0084 | | 0.375 | 1 |
| | 10 | 550437 | S203M-C10 | 2CDS273001R0104 | | 0.375 | 1 |
| | 13 | 550444 | S203M-C13 | 2CDS273001R0134 | | 0.375 | 1 |
| | 16 | 550451 | S203M-C16 | 2CDS273001R0164 | | 0.375 | 1 |
| | 20 ① | 550468 | S203M-C20 | 2CDS273001R0204 | | 0.375 | 1 |
| | 25 | 550475 | S203M-C25 | 2CDS273001R0254 | | 0.375 | 1 |
| | 32 ② | 550482 | S203M-C32 | 2CDS273001R0324 | | 0.375 | 1 |
| | 40 ③ | 550499 | S203M-C40 | 2CDS273001R0404 | | 0.375 | 1 |
| | 50 | 543996 | S203M-C50 | 2CDS273001R0504 | | 0.375 | 1 |
| | 63 | 544009 | S203M-C63 | 2CDS273001R0634 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 550659 | S204M-C0.5 | 2CDS274001R0984 | | 0.500 | 1 |
| | 1 | 550673 | S204M-C1 | 2CDS274001R0014 | | 0.500 | 1 |
| | 1.6 | 550666 | S204M-C1.6 | 2CDS274001R0974 | | 0.500 | 1 |
| | 2 | 550680 | S204M-C2 | 2CDS274001R0024 | | 0.500 | 1 |
| | 3 | 550697 | S204M-C3 | 2CDS274001R0034 | | 0.500 | 1 |
| | 4 | 550703 | S204M-C4 | 2CDS274001R0044 | | 0.500 | 1 |
| | 6 | 550710 | S204M-C6 | 2CDS274001R0064 | | 0.500 | 1 |
| | 8 | 550727 | S204M-C8 | 2CDS274001R0084 | | 0.500 | 1 |
| | 10 | 550734 | S204M-C10 | 2CDS274001R0104 | | 0.500 | 1 |
| | 13 | 550741 | S204M-C13 | 2CDS274001R0134 | | 0.500 | 1 |
| | 16 | 550758 | S204M-C16 | 2CDS274001R0164 | | 0.500 | 1 |
| | 20 | 550765 | S204M-C20 | 2CDS274001R0204 | | 0.500 | 1 |
| | 25 | 550772 | S204M-C25 | 2CDS274001R0254 | | 0.500 | 1 |
| | 32 | 550789 | S204M-C32 | 2CDS274001R0324 | | 0.500 | 1 |
| | 40 | 550796 | S204M-C40 | 2CDS274001R0404 | | 0.500 | 1 |
| | 50 | 544030 | S204M-C50 | 2CDS274001R0504 | | 0.500 | 1 |
| | 63 | 544047 | S204M-C63 | 2CDS274001R0634 | | 0.500 | 1 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
## S 200 series M 10000 C characteristic






S 201 M NA




S 203 M NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 550055 | S201M-C0.5NA | 2CDS271103R0984 | | 0.250 | 5 |
| | 1 | 550079 | S201M-C1NA | 2CDS271103R0014 | | 0.250 | 5 |
| | 1.6 | 550062 | S201M-C1.6NA | 2CDS271103R0974 | | 0.250 | 5 |
| | 2 | 550086 | S201M-C2NA | 2CDS271103R0024 | | 0.250 | 5 |
| | 3 | 550093 | S201M-C3NA | 2CDS271103R0034 | | 0.250 | 5 |
| | 4 | 550109 | S201M-C4NA | 2CDS271103R0044 | | 0.250 | 5 |
| | 6 | 550116 | S201M-C6NA | 2CDS271103R0064 | | 0.250 | 5 |
| | 8 | 550123 | S201M-C8NA | 2CDS271103R0084 | | 0.250 | 5 |
| | 10 | 550130 | S201M-C10NA | 2CDS271103R0104 | | 0.250 | 5 |
| | 13 | 550147 | S201M-C13NA | 2CDS271103R0134 | | 0.250 | 5 |
| | 16 | 550154 | S201M-C16NA | 2CDS271103R0164 | | 0.250 | 5 |
| | 20 ① | 550161 | S201M-C20NA | 2CDS271103R0204 | | 0.250 | 5 |
| | 25 | 550178 | S201M-C25NA | 2CDS271103R0254 | | 0.250 | 5 |
| | 32 ② | 550185 | S201M-C32NA | 2CDS271103R0324 | | 0.250 | 5 |
| | 40 ③ | 550192 | S201M-C40NA | 2CDS271103R0404 | | 0.250 | 5 |
| | 50 | 543958 | S201M-C50NA | 2CDS271103R0504 | | 0.250 | 5 |
| | 63 | 543965 | S201M-C63NA | 2CDS271103R0634 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 550512 | S203M-C0.5NA | 2CDS273103R0984 | | 0.500 | 1 |
| | 1 | 550529 | S203M-C1NA | 2CDS273103R0014 | | 0.500 | 1 |
| | 1.6 | 550505 | S203M-C1.6NA | 2CDS273103R0974 | | 0.500 | 1 |
| | 2 | 550536 | S203M-C2NA | 2CDS273103R0024 | | 0.500 | 1 |
| | 3 | 550543 | S203M-C3NA | 2CDS273103R0034 | | 0.500 | 1 |
| | 4 | 550550 | S203M-C4NA | 2CDS273103R0044 | | 0.500 | 1 |
| | 6 | 550567 | S203M-C6NA | 2CDS273103R0064 | | 0.500 | 1 |
| | 8 | 550574 | S203M-C8NA | 2CDS273103R0084 | | 0.500 | 1 |
| | 10 | 550581 | S203M-C10NA | 2CDS273103R0104 | | 0.500 | 1 |
| | 13 | 550598 | S203M-C13NA | 2CDS273103R0134 | | 0.500 | 1 |
| | 16 | 550604 | S203M-C16NA | 2CDS273103R0164 | | 0.500 | 1 |
| | 20 ① | 550611 | S203M-C20NA | 2CDS273103R0204 | | 0.500 | 1 |
| | 25 | 550628 | S203M-C25NA | 2CDS273103R0254 | | 0.500 | 1 |
| | 32 ② | 550635 | S203M-C32NA | 2CDS273103R0324 | | 0.500 | 1 |
| | 40 ③ | 550642 | S203M-C40NA | 2CDS273103R0404 | | 0.500 | 1 |
| | 50 | 544016 | S203M-C50NA | 2CDS273103R0504 | | 0.580 | 1 |
| | 63 | 544023 | S203M-C63NA | 2CDS273103R0634 | | 0.580 | 1 |

**① suitable for flow-type heaters 12 kW**
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# MCBs
# S 200 series M 10000 D characteristic




S 201 M




S 202 M

## S 200 M-D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1, IEC/EN 60947-2**

**Icn=10 kA**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 599832 | S201M-D0.5 | 2CDS271001R0981 | | 0.125 | 10 |
| | 1 | 500313 | S201M-D1 | 2CDS271001R0011 | | 0.125 | 10 |
| | 1.6 | 599825 | S201M-D1.6 | 2CDS271001R0971 | | 0.125 | 10 |
| | 2 | 599337 | S201M-D2 | 2CDS271001R0021 | | 0.125 | 10 |
| | 3 | 599351 | S201M-D3 | 2CDS271001R0031 | | 0.125 | 10 |
| | 4 | 599357 | S201M-D4 | 2CDS271001R0041 | | 0.125 | 10 |
| | 6 | 599399 | S201M-D6 | 2CDS271001R0061 | | 0.125 | 10 |
| | 8 | 599405 | S201M-D8 | 2CDS271001R0081 | | 0.125 | 10 |
| | 10 | 599429 | S201M-D10 | 2CDS271001R0101 | | 0.125 | 10 |
| | 13 | 663267 | S201M-D13 | 2CDS271001R0131 | | 0.125 | 10 |
| | 16 | 599450 | S201M-D16 | 2CDS271001R0161 | | 0.125 | 10 |
| | 20 ① | 500467 | S201M-D20 | 2CDS271001R0201 | | 0.125 | 10 |
| | 25 | 599498 | S201M-D25 | 2CDS271001R0251 | | 0.125 | 10 |
| | 32 ② | 599566 | S201M-D32 | 2CDS271001R0321 | | 0.125 | 10 |
| | 40 ③ | 599610 | S201M-D40 | 2CDS271001R0401 | | 0.125 | 10 |
| | 50 | 599702 | S201M-D50 | 2CDS271001R0501 | | 0.125 | 10 |
| | 63 | 599818 | S201M-D63 | 2CDS271001R0631 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | 600880 | S202M-D0.5 | 2CDS272001R0981 | | 0.250 | 5 |
| | 1 | 600361 | S202M-D1 | 2CDS272001R0011 | | 0.250 | 5 |
| | 1.6 | 600873 | S202M-D1.6 | 2CDS272001R0971 | | 0.250 | 5 |
| | 2 | 600385 | S202M-D2 | 2CDS272001R0021 | | 0.250 | 5 |
| | 3 | 600408 | S202M-D3 | 2CDS272001R0031 | | 0.250 | 5 |
| | 4 | 600422 | S202M-D4 | 2CDS272001R0041 | | 0.250 | 5 |
| | 6 | 600446 | S202M-D6 | 2CDS272001R0061 | | 0.250 | 5 |
| | 8 | 600453 | S202M-D8 | 2CDS272001R0081 | | 0.250 | 5 |
| | 10 | 600477 | S202M-D10 | 2CDS272001R0101 | | 0.250 | 5 |
| | 13 | 663274 | S202M-D13 | 2CDS272001R0131 | | 0.250 | 5 |
| | 16 | 600507 | S202M-D16 | 2CDS272001R0161 | | 0.250 | 5 |
| | 20 | 600514 | S202M-D20 | 2CDS272001R0201 | | 0.250 | 5 |
| | 25 | 600545 | S202M-D25 | 2CDS272001R0251 | | 0.250 | 5 |
| | 32 | 600613 | S202M-D32 | 2CDS272001R0321 | | 0.250 | 5 |
| | 40 | 600668 | S202M-D40 | 2CDS272001R0401 | | 0.250 | 5 |
| | 50 | 600750 | S202M-D50 | 2CDS272001R0501 | | 0.250 | 5 |
| | 63 | 600866 | S202M-D63 | 2CDS272001R0631 | | 0.250 | 5 |

① **suitable for flow-type heaters 12 kW**
② **suitable for flow-type heaters 18 kW**
③ **suitable for flow-type heaters 21, 24 and 27 kW**

# MCBs
## S 200 series M 10000 D characteristic






S 203 M




S 204 M

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 601412 | S203M-D0.5 | 2CDS273001R0981 | | 0.375 | 1 |
| | 1 | 600897 | S203M-D1 | 2CDS273001R0011 | | 0.375 | 1 |
| | 1.6 | 601405 | S203M-D1.6 | 2CDS273001R0971 | | 0.375 | 1 |
| | 2 | 600910 | S203M-D2 | 2CDS273001R0021 | | 0.375 | 1 |
| | 3 | 600934 | S203M-D3 | 2CDS273001R0031 | | 0.375 | 1 |
| | 4 | 600958 | S203M-D4 | 2CDS273001R0041 | | 0.375 | 1 |
| | 6 | 600972 | S203M-D6 | 2CDS273001R0061 | | 0.375 | 1 |
| | 8 | 600989 | S203M-D8 | 2CDS273001R0081 | | 0.375 | 1 |
| | 10 | 601009 | S203M-D10 | 2CDS273001R0101 | | 0.375 | 1 |
| | 13 | 663281 | S203M-D13 | 2CDS273001R0131 | | 0.375 | 1 |
| | 16 | 601030 | S203M-D16 | 2CDS273001R0161 | | 0.375 | 1 |
| | 20 ① | 601047 | S203M-D20 | 2CDS273001R0201 | | 0.375 | 1 |
| | 25 | 601078 | S203M-D25 | 2CDS273001R0251 | | 0.375 | 1 |
| | 32 ② | 601146 | S203M-D32 | 2CDS273001R0321 | | 0.375 | 1 |
| | 40 ③ | 601191 | S203M-D40 | 2CDS273001R0401 | | 0.375 | 1 |
| | 50 | 601283 | S203M-D50 | 2CDS273001R0501 | | 0.375 | 1 |
| | 63 | 601399 | S203M-D63 | 2CDS273001R0631 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 602143 | S204M-D0.5 | 2CDS274001R0981 | | 0.500 | 1 |
| | 1 | 601634 | S204M-D1 | 2CDS274001R0011 | | 0.500 | 1 |
| | 1.6 | 602136 | S204M-D1.6 | 2CDS274001R0971 | | 0.500 | 1 |
| | 2 | 601658 | S204M-D2 | 2CDS274001R0021 | | 0.500 | 1 |
| | 3 | 601672 | S204M-D3 | 2CDS274001R0031 | | 0.500 | 1 |
| | 4 | 601696 | S204M-D4 | 2CDS274001R0041 | | 0.500 | 1 |
| | 6 | 601719 | S204M-D6 | 2CDS274001R0061 | | 0.500 | 1 |
| | 8 | 601726 | S204M-D8 | 2CDS274001R0081 | | 0.500 | 1 |
| | 10 | 601740 | S204M-D10 | 2CDS274001R0101 | | 0.500 | 1 |
| | 13 | 663298 | S204M-D13 | 2CDS274001R0131 | | 0.500 | 1 |
| | 16 | 601771 | S204M-D16 | 2CDS274001R0161 | | 0.500 | 1 |
| | 20 | 601788 | S204M-D20 | 2CDS274001R0201 | | 0.500 | 1 |
| | 25 | 601818 | S204M-D25 | 2CDS274001R0251 | | 0.500 | 1 |
| | 32 | 601887 | S204M-D32 | 2CDS274001R0321 | | 0.500 | 1 |
| | 40 | 601931 | S204M-D40 | 2CDS274001R0401 | | 0.500 | 1 |
| | 50 | 602013 | S204M-D50 | 2CDS274001R0501 | | 0.500 | 1 |
| | 63 | 602129 | S204M-D63 | 2CDS274001R0631 | | 0.500 | 1 |

① **suitable for flow-type heaters 12 kW**
② **suitable for flow-type heaters 18 kW**
③ **suitable for flow-type heaters 21, 24 and 27 kW**

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S 201 M NA




S 203 M NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 600354 | S201M-D0.5NA | 2CDS271103R0981 | | 0.250 | 5 |
| | 1 | 599849 | S201M-D1NA | 2CDS271103R0011 | | 0.250 | 5 |
| | 1.6 | 600347 | S201-MD1.6NA | 2CDS271103R0971 | | 0.250 | 5 |
| | 2 | 599863 | S201M-D2NA | 2CDS271103R0021 | | 0.250 | 5 |
| | 3 | 599887 | S201M-D3NA | 2CDS271103R0031 | | 0.250 | 5 |
| | 4 | 599900 | S201M-D4NA | 2CDS271103R0041 | | 0.250 | 5 |
| | 6 | 599924 | S201M-D6NA | 2CDS271103R0061 | | 0.250 | 5 |
| | 8 | 599931 | S201M-D8NA | 2CDS271103R0081 | | 0.250 | 5 |
| | 10 | 599948 | S201M-D10NA | 2CDS271103R0101 | | 0.250 | 5 |
| | 13 | 663304 | S201M-D13NA | 2CDS271103R0131 | | 0.250 | 5 |
| | 16 | 599979 | S201M-D16NA | 2CDS271103R0161 | | 0.250 | 5 |
| | 20 ① | 599986 | S201M-D20NA | 2CDS271103R0201 | | 0.250 | 5 |
| | 25 | 600019 | S201M-D25NA | 2CDS271103R0251 | | 0.250 | 5 |
| | 32 ② | 600088 | S201M-D32NA | 2CDS271103R0321 | | 0.250 | 5 |
| | 40 ③ | 600132 | S201M-D40NA | 2CDS271103R0401 | | 0.250 | 5 |
| | 50 | 600224 | S201M-D50NA | 2CDS271103R0501 | | 0.290 | 5 |
| | 63 | 600330 | S201M-D63NA | 2CDS271103R0631 | | 0.290 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 663311 | S203M-D0.5NA | 2CDS273103R0981 | | 0.500 | 1 |
| | 1 | 663328 | S203M-D1NA | 2CDS273103R0011 | | 0.500 | 1 |
| | 1.6 | 663335 | S203M-D1.6NA | 2CDS273103R0971 | | 0.500 | 1 |
| | 2 | 663342 | S203M-D2NA | 2CDS273103R0021 | | 0.500 | 1 |
| | 3 | 663359 | S203M-D3NA | 2CDS273103R0031 | | 0.500 | 1 |
| | 4 | 663366 | S203M-D4NA | 2CDS273103R0041 | | 0.500 | 1 |
| | 6 | 663373 | S203M-D6NA | 2CDS273103R0061 | | 0.500 | 1 |
| | 8 | 663380 | S203M-D8NA | 2CDS273103R0081 | | 0.500 | 1 |
| | 10 | 663397 | S203M-D10NA | 2CDS273103R0101 | | 0.500 | 1 |
| | 13 | 663403 | S203M-D13NA | 2CDS273103R0131 | | 0.500 | 1 |
| | 16 | 663410 | S203M-D16NA | 2CDS273103R0161 | | 0.500 | 1 |
| | 20 ① | 663427 | S203M-D20NA | 2CDS273103R0201 | | 0.500 | 1 |
| | 25 | 663434 | S203M-D25NA | 2CDS273103R0251 | | 0.500 | 1 |
| | 32 ② | 663441 | S203M-D32NA | 2CDS273103R0321 | | 0.500 | 1 |
| | 40 ③ | 663458 | S203M-D40NA | 2CDS273103R0401 | | 0.500 | 1 |
| | 50 | 663465 | S203M-D50NA | 2CDS273103R0501 | | 0.580 | 1 |
| | 63 | 663472 | S203M-D63NA | 2CDS273103R0631 | | 0.580 | 1 |

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW
③ suitable for flow-type heaters 21, 24 and 27 kW

# MCBs
# S 200 series M 10000 K characteristic






S 201 M




S 202 M

## S 200 M-K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=15 kA for 0.5 A ≤ In ≤ 40 A**

**Icu=10 kA for 50 A ≤ In ≤ 63 A**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 599436 | S201M-K0.5 | 2CDS271001R0157 | | 0.125 | 10 |
| | 1 | 599474 | S201M-K1 | 2CDS271001R0217 | | 0.125 | 10 |
| | 1.6 | 599504 | S201M-K1.6 | 2CDS271001R0257 | | 0.125 | 10 |
| | 2 | 599528 | S201M-K2 | 2CDS271001R0277 | | 0.125 | 10 |
| | 3 | 599542 | S201M-K3 | 2CDS271001R0317 | | 0.125 | 10 |
| | 4 | 599573 | S201M-K4 | 2CDS271001R0337 | | 0.125 | 10 |
| | 6 | 599597 | S201M-K6 | 2CDS271001R0377 | | 0.125 | 10 |
| | 8 | 599627 | S201M-K8 | 2CDS271001R0407 | | 0.125 | 10 |
| | 10 | 599641 | S201M-K10 | 2CDS271001R0427 | | 0.125 | 10 |
| | 13 | 659390 | S201M-K13 | 2CDS271001R0447 | | 0.125 | 10 |
| | 16 | 599665 | S201M-K16 | 2CDS271001R0467 | | 0.125 | 10 |
| | 20 | 599689 | S201M-K20 | 2CDS271001R0487 | | 0.125 | 10 |
| | 25 | 599719 | S201M-K25 | 2CDS271001R0517 | | 0.125 | 10 |
| | 32 | 599733 | S201M-K32 | 2CDS271001R0537 | | 0.125 | 10 |
| | 40 | 599757 | S201M-K40 | 2CDS271001R0557 | | 0.125 | 10 |
| | 50 | 599771 | S201M-K50 | 2CDS271001R0577 | | 0.125 | 10 |
| | 63 | 599795 | S201M-K63 | 2CDS271001R0607 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | 600484 | S202M-K0.5 | 2CDS272001R0157 | | 0.250 | 5 |
| | 1 | 600521 | S202M-K1 | 2CDS272001R0217 | | 0.250 | 5 |
| | 1.6 | 600552 | S202M-K1.6 | 2CDS272001R0257 | | 0.250 | 5 |
| | 2 | 600576 | S202M-K2 | 2CDS272001R0277 | | 0.250 | 5 |
| | 3 | 600590 | S202M-K3 | 2CDS272001R0317 | | 0.250 | 5 |
| | 4 | 600620 | S202M-K4 | 2CDS272001R0337 | | 0.250 | 5 |
| | 6 | 600644 | S202M-K6 | 2CDS272001R0377 | | 0.250 | 5 |
| | 8 | 600675 | S202M-K8 | 2CDS272001R0407 | | 0.250 | 5 |
| | 10 | 600699 | S202M-K10 | 2CDS272001R0427 | | 0.250 | 5 |
| | 13 | 659406 | S202M-K13 | 2CDS272001R0447 | | 0.250 | 5 |
| | 16 | 600712 | S202M-K16 | 2CDS272001R0467 | | 0.250 | 5 |
| | 20 | 600736 | S202M-K20 | 2CDS272001R0487 | | 0.250 | 5 |
| | 25 | 600767 | S202M-K25 | 2CDS272001R0517 | | 0.250 | 5 |
| | 32 | 600781 | S202M-K32 | 2CDS272001R0537 | | 0.250 | 5 |
| | 40 | 600804 | S202M-K40 | 2CDS272001R0557 | | 0.250 | 5 |
| | 50 | 600828 | S202M-K50 | 2CDS272001R0577 | | 0.250 | 5 |
| | 63 | 600842 | S202M-K63 | 2CDS272001R0607 | | 0.250 | 5 |

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S 203 M




S 204 M

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 601016 | S203M-K0.5 | 2CDS273001R0157 | | 0.375 | 1 |
| | 1 | 601054 | S203M-K1 | 2CDS273001R0217 | | 0.375 | 1 |
| | 1.6 | 601085 | S203M-K1.6 | 2CDS273001R0257 | | 0.375 | 1 |
| | 2 | 601108 | S203M-K2 | 2CDS273001R0277 | | 0.375 | 1 |
| | 3 | 601122 | S203M-K3 | 2CDS273001R0317 | | 0.375 | 1 |
| | 4 | 601153 | S203M-K4 | 2CDS273001R0337 | | 0.375 | 1 |
| | 6 | 601177 | S203M-K6 | 2CDS273001R0377 | | 0.375 | 1 |
| | 8 | 601207 | S203M-K8 | 2CDS273001R0407 | | 0.375 | 1 |
| | 10 | 601221 | S203M-K10 | 2CDS273001R0427 | | 0.375 | 1 |
| | 13 | 659413 | S203M-K13 | 2CDS273001R0447 | | 0.375 | 1 |
| | 16 | 601245 | S203M-K16 | 2CDS273001R0467 | | 0.375 | 1 |
| | 20 | 601269 | S203M-K20 | 2CDS273001R0487 | | 0.375 | 1 |
| | 25 | 601290 | S203M-K25 | 2CDS273001R0517 | | 0.375 | 1 |
| | 32 | 601313 | S203M-K32 | 2CDS273001R0537 | | 0.375 | 1 |
| | 40 | 601337 | S203M-K40 | 2CDS273001R0557 | | 0.375 | 1 |
| | 50 | 601351 | S203M-K50 | 2CDS273001R0577 | | 0.375 | 1 |
| | 63 | 601375 | S203M-K63 | 2CDS273001R0607 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 601757 | S204M-K0.5 | 2CDS274001R0157 | | 0.500 | 1 |
| | 1 | 601795 | S204M-K1 | 2CDS274001R0217 | | 0.500 | 1 |
| | 1.6 | 601825 | S204M-K1.6 | 2CDS274001R0257 | | 0.500 | 1 |
| | 2 | 601849 | S204M-K2 | 2CDS274001R0277 | | 0.500 | 1 |
| | 3 | 601863 | S204M-K3 | 2CDS274001R0317 | | 0.500 | 1 |
| | 4 | 601894 | S204M-K4 | 2CDS274001R0337 | | 0.500 | 1 |
| | 6 | 601917 | S204M-K6 | 2CDS274001R0377 | | 0.500 | 1 |
| | 8 | 601948 | S204M-K8 | 2CDS274001R0407 | | 0.500 | 1 |
| | 10 | 601962 | S204M-K10 | 2CDS274001R0427 | | 0.500 | 1 |
| | 13 | 659420 | S204M-K13 | 2CDS274001R0447 | | 0.500 | 1 |
| | 16 | 601986 | S204M-K16 | 2CDS274001R0467 | | 0.500 | 1 |
| | 20 | 602006 | S204M-K20 | 2CDS274001R0487 | | 0.500 | 1 |
| | 25 | 602020 | S204M-K25 | 2CDS274001R0517 | | 0.500 | 1 |
| | 32 | 602044 | S204M-K32 | 2CDS274001R0537 | | 0.500 | 1 |
| | 40 | 602068 | S204M-K40 | 2CDS274001R0557 | | 0.500 | 1 |
| | 50 | 602082 | S204M-K50 | 2CDS274001R0577 | | 0.500 | 1 |
| | 63 | 602105 | S204M-K63 | 2CDS274001R0607 | | 0.500 | 1 |

# MCBs
## S 200 series M 10000 K characteristic






S 201 M NA




S 203 M NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 599955 | S201M-K0.5NA | 2CDS271103R0157 | | 0.250 | 5 |
| | 1 | 599993 | S201M-K1NA | 2CDS271103R0217 | | 0.250 | 5 |
| | 1.6 | 600026 | S201M-K1.6NA | 2CDS271103R0257 | | 0.250 | 5 |
| | 2 | 600040 | S201M-K2NA | 2CDS271103R0277 | | 0.250 | 5 |
| | 3 | 600064 | S201M-K3NA | 2CDS271103R0317 | | 0.250 | 5 |
| | 4 | 600095 | S201M-K4NA | 2CDS271103R0337 | | 0.250 | 5 |
| | 6 | 600118 | S201M-K6NA | 2CDS271103R0377 | | 0.250 | 5 |
| | 8 | 600149 | S201M-K8NA | 2CDS271103R0407 | | 0.250 | 5 |
| | 10 | 600163 | S201M-K10NA | 2CDS271103R0427 | | 0.250 | 5 |
| | 13 | 659437 | S201M-K13NA | 2CDS271103R0447 | | 0.250 | 5 |
| | 16 | 600187 | S201M-K16NA | 2CDS271103R0467 | | 0.250 | 5 |
| | 20 | 600200 | S201M-K20NA | 2CDS271103R0487 | | 0.250 | 5 |
| | 25 | 600231 | S201M-K25NA | 2CDS271103R0517 | | 0.250 | 5 |
| | 32 | 600255 | S201M-K32NA | 2CDS271103R0537 | | 0.250 | 5 |
| | 40 | 600279 | S201M-K40NA | 2CDS271103R0557 | | 0.250 | 5 |
| | 50 | 600293 | S201M-K50NA | 2CDS271103R0577 | | 0.250 | 5 |
| | 63 | 600316 | S201M-K63NA | 2CDS271103R0607 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 659444 | S203M-K0.5NA | 2CDS273103R0157 | | 0.500 | 1 |
| | 1 | 650451 | S203M-K1NA | 2CDS273103R0217 | | 0.500 | 1 |
| | 1.6 | 659468 | S203M-K1.6NA | 2CDS273103R0257 | | 0.500 | 1 |
| | 2 | 659475 | S203M-K2NA | 2CDS273103R0277 | | 0.500 | 1 |
| | 3 | 659482 | S203M-K3NA | 2CDS273103R0317 | | 0.500 | 1 |
| | 4 | 659499 | S203M-K4NA | 2CDS273103R0337 | | 0.500 | 1 |
| | 6 | 659505 | S203M-K6NA | 2CDS273103R0377 | | 0.500 | 1 |
| | 8 | 659512 | S203M-K8NA | 2CDS273103R0407 | | 0.500 | 1 |
| | 10 | 659529 | S203M-K10NA | 2CDS273103R0427 | | 0.500 | 1 |
| | 13 | 659536 | S203M-K13NA | 2CDS273103R0447 | | 0.500 | 1 |
| | 16 | 659543 | S203M-K16NA | 2CDS273103R0467 | | 0.500 | 1 |
| | 20 | 659550 | S203M-K20NA | 2CDS273103R0487 | | 0.500 | 1 |
| | 25 | 659567 | S203M-K25NA | 2CDS273103R0517 | | 0.500 | 1 |
| | 32 | 659574 | S203M-K32NA | 2CDS273103R0537 | | 0.500 | 1 |
| | 40 | 659581 | S203M-K40NA | 2CDS273103R0557 | | 0.500 | 1 |
| | 50 | 659604 | S203M-K50NA | 2CDS273103R0577 | | 0.500 | 1 |
| | 63 | 659611 | S203M-K63NA | 2CDS273103R0607 | | 0.500 | 1 |

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# MCBs
# S 200 series M 10000 Z characteristic




S 201 M




S 202 M

## S 200 M-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, VDE 0660 Part 101**

**Icu=10 kA (acc. to VDE 0660 Part 101)**



| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 599443 | S201M-Z0.5 | 2CDS271001R0158 | | 0.125 | 10 |
| | 1 | 599481 | S201M-Z1 | 2CDS271001R0218 | | 0.125 | 10 |
| | 1.6 | 599511 | S201M-Z1.6 | 2CDS271001R0258 | | 0.125 | 10 |
| | 2 | 599535 | S201M-Z2 | 2CDS271001R0278 | | 0.125 | 10 |
| | 3 | 599559 | S201M-Z3 | 2CDS271001R0318 | | 0.125 | 10 |
| | 4 | 599580 | S201M-Z4 | 2CDS271001R0338 | | 0.125 | 10 |
| | 6 | 599603 | S201M-Z6 | 2CDS271001R0378 | | 0.125 | 10 |
| | 8 | 599634 | S201M-Z8 | 2CDS271001R0408 | | 0.125 | 10 |
| | 10 | 599658 | S201M-Z10 | 2CDS271001R0428 | | 0.125 | 10 |
| | 16 | 599672 | S201M-Z16 | 2CDS271001R0468 | | 0.125 | 10 |
| | 20 | 599696 | S201M-Z20 | 2CDS271001R0488 | | 0.125 | 10 |
| | 25 | 599726 | S201M-Z25 | 2CDS271001R0518 | | 0.125 | 10 |
| | 32 | 599740 | S201M-Z32 | 2CDS271001R0538 | | 0.125 | 10 |
| | 40 | 599764 | S201M-Z40 | 2CDS271001R0558 | | 0.125 | 10 |
| | 50 | 599788 | S201M-Z50 | 2CDS271001R0578 | | 0.125 | 10 |
| | 63 | 599801 | S201M-Z63 | 2CDS271001R0608 | | 0.125 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 600491 | S202M-Z0.5 | 2CDS272001R0158 | | 0.250 | 5 |
| | 1 | 600538 | S202M-Z1 | 2CDS272001R0218 | | 0.250 | 5 |
| | 1.6 | 600569 | S202M-Z1.6 | 2CDS272001R0258 | | 0.250 | 5 |
| | 2 | 600583 | S202M-Z2 | 2CDS272001R0278 | | 0.250 | 5 |
| | 3 | 600606 | S202M-Z3 | 2CDS272001R0318 | | 0.250 | 5 |
| | 4 | 600637 | S202M-Z4 | 2CDS272001R0338 | | 0.250 | 5 |
| | 6 | 600651 | S202M-Z6 | 2CDS272001R0378 | | 0.250 | 5 |
| | 8 | 600682 | S202M-Z8 | 2CDS272001R0408 | | 0.250 | 5 |
| | 10 | 600705 | S202M-Z10 | 2CDS272001R0428 | | 0.250 | 5 |
| | 16 | 600729 | S202M-Z16 | 2CDS272001R0468 | | 0.250 | 5 |
| | 20 | 600743 | S202M-Z20 | 2CDS272001R0488 | | 0.250 | 5 |
| | 25 | 600774 | S202M-Z25 | 2CDS272001R0518 | | 0.250 | 5 |
| | 32 | 600798 | S202M-Z32 | 2CDS272001R0538 | | 0.250 | 5 |
| | 40 | 600811 | S202M-Z40 | 2CDS272001R0558 | | 0.250 | 5 |
| | 50 | 600835 | S202-MZ50 | 2CDS272001R0578 | | 0.250 | 5 |
| | 63 | 600859 | S202M-Z63 | 2CDS272001R0608 | | 0.250 | 5 |

# MCBs
## S 200 series M 10000 Z characteristic






S 203 M




S 204 M

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 601023 | S203M-Z0.5 | 2CDS273001R0158 | | 0.375 | 1 |
| | 1 | 601061 | S203M-Z1 | 2CDS273001R0218 | | 0.375 | 1 |
| | 1.6 | 601092 | S203M-Z1.6 | 2CDS273001R0258 | | 0.375 | 1 |
| | 2 | 601115 | S203M-Z2 | 2CDS273001R0278 | | 0.375 | 1 |
| | 3 | 601139 | S203M-Z3 | 2CDS273001R0318 | | 0.375 | 1 |
| | 4 | 601160 | S203M-Z4 | 2CDS273001R0338 | | 0.375 | 1 |
| | 6 | 601184 | S203M-Z6 | 2CDS273001R0378 | | 0.375 | 1 |
| | 8 | 601214 | S203M-Z8 | 2CDS273001R0408 | | 0.375 | 1 |
| | 10 | 601238 | S203M-Z10 | 2CDS273001R0428 | | 0.375 | 1 |
| | 16 | 601252 | S203M-Z16 | 2CDS273001R0468 | | 0.375 | 1 |
| | 20 | 601276 | S203M-Z20 | 2CDS273001R0488 | | 0.375 | 1 |
| | 25 | 601306 | S203M-Z25 | 2CDS273001R0518 | | 0.375 | 1 |
| | 32 | 601320 | S203M-Z32 | 2CDS273001R0538 | | 0.375 | 1 |
| | 40 | 601344 | S203M-Z40 | 2CDS273001R0558 | | 0.375 | 1 |
| | 50 | 601368 | S203M-Z50 | 2CDS273001R0578 | | 0.375 | 1 |
| | 63 | 601382 | S203M-Z63 | 2CDS273001R0608 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 601764 | S204M-Z0.5 | 2CDS274001R0158 | | 0.500 | 1 |
| | 1 | 601810 | S204M-Z1 | 2CDS274001R0218 | | 0.500 | 1 |
| | 1.6 | 601832 | S204M-Z1.6 | 2CDS274001R0258 | | 0.500 | 1 |
| | 2 | 601856 | S204M-Z2 | 2CDS274001R0278 | | 0.500 | 1 |
| | 3 | 601870 | S204M-Z3 | 2CDS274001R0318 | | 0.500 | 1 |
| | 4 | 601900 | S204M-Z4 | 2CDS274001R0338 | | 0.500 | 1 |
| | 6 | 601924 | S204M-Z6 | 2CDS274001R0378 | | 0.500 | 1 |
| | 8 | 601955 | S204M-Z8 | 2CDS274001R0408 | | 0.500 | 1 |
| | 10 | 601979 | S204M-Z10 | 2CDS274001R0428 | | 0.500 | 1 |
| | 16 | 601993 | S204M-Z16 | 2CDS274001R0468 | | 0.500 | 1 |
| | 20 | 659628 | S204M-Z20 | 2CDS274001R0488 | | 0.500 | 1 |
| | 25 | 602037 | S204M-Z25 | 2CDS274001R0518 | | 0.500 | 1 |
| | 32 | 602051 | S204M-Z32 | 2CDS274001R0538 | | 0.500 | 1 |
| | 40 | 602075 | S204M-Z40 | 2CDS274001R0558 | | 0.500 | 1 |
| | 50 | 602099 | S204M-Z50 | 2CDS274001R0578 | | 0.500 | 1 |
| | 63 | 602112 | S204M-Z63 | 2CDS274001R0608 | | 0.500 | 1 |

① $U_{Bmax}$ 125 V ⎓ with 2 poles connected in series

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S 201 M NA




S 203 M NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 599962 | S201M-Z0.5NA | 2CDS271103R0158 | | 0.260 | 5 |
| | 1 | 600002 | S201M-Z1NA | 2CDS271103R0218 | | 0.260 | 5 |
| | 1.6 | 600033 | S201M-Z1.6NA | 2CDS271103R0258 | | 0.260 | 5 |
| | 2 | 600057 | S201M-Z2NA | 2CDS271103R0278 | | 0.260 | 5 |
| | 3 | 600071 | S201M-Z3NA | 2CDS271103R0318 | | 0.260 | 5 |
| | 4 | 600101 | S201M-Z4NA | 2CDS271103R0338 | | 0.260 | 5 |
| | 6 | 600125 | S201M-Z6NA | 2CDS271103R0378 | | 0.260 | 5 |
| | 8 | 600156 | S201M-Z8NA | 2CDS271103R0408 | | 0.260 | 5 |
| | 10 | 600170 | S201M-Z10NA | 2CDS271103R0428 | | 0.260 | 5 |
| | 16 | 600194 | S201M-Z16NA | 2CDS271103R0468 | | 0.260 | 5 |
| | 20 | 600217 | S201M-Z20NA | 2CDS271103R0488 | | 0.260 | 5 |
| | 25 | 600248 | S201M-Z25NA | 2CDS271103R0518 | | 0.260 | 5 |
| | 32 | 600262 | S201M-Z32NA | 2CDS271103R0538 | | 0.260 | 5 |
| | 40 | 600286 | S201M-Z40NA | 2CDS271103R0558 | | 0.260 | 5 |
| | 50 | 600309 | S201M-Z50NA | 2CDS271103R0578 | | 0.320 | 5 |
| | 63 | 600323 | S201M-Z63NA | 2CDS271103R0608 | | 0.320 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 601474 | S203M-Z0.5NA | 2CDS273103R0158 | | 0.520 | 1 |
| | 1 | 601481 | S203M-Z1NA | 2CDS273103R0218 | | 0.520 | 1 |
| | 1.6 | 601498 | S203M-Z1.6NA | 2CDS273103R0258 | | 0.520 | 1 |
| | 2 | 601504 | S203M-Z2NA | 2CDS273103R0278 | | 0.520 | 1 |
| | 3 | 601511 | S203M-Z3NA | 2CDS273103R0318 | | 0.520 | 1 |
| | 4 | 601528 | S203M-Z4NA | 2CDS273103R0338 | | 0.520 | 1 |
| | 6 | 601535 | S203M-Z6NA | 2CDS273103R0378 | | 0.520 | 1 |
| | 8 | 601542 | S203M-Z8NA | 2CDS273103R0408 | | 0.520 | 1 |
| | 10 | 601559 | S203M-Z10NA | 2CDS273103R0428 | | 0.520 | 1 |
| | 16 | 601566 | S203M-Z16NA | 2CDS273103R0468 | | 0.520 | 1 |
| | 20 | 601573 | S203M-Z20NA | 2CDS273103R0488 | | 0.520 | 1 |
| | 25 | 601580 | S203M-Z25NA | 2CDS273103R0518 | | 0.520 | 1 |
| | 32 | 601597 | S203M-Z32NA | 2CDS273103R0538 | | 0.520 | 1 |
| | 40 | 601603 | S203M-Z40NA | 2CDS273103R0558 | | 0.520 | 1 |
| | 50 | 601610 | S203M-Z50NA | 2CDS273103R0578 | | 0.640 | 1 |
| | 63 | 601627 | S203M-Z63NA | 2CDS273103R0608 | | 0.640 | 1 |

# MCBs
# S 200 series M UC 10000 B characteristic
# Universal current range






S 201 M UC




S 202 M UC

## S 200 M UC B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

**Applications: Industrial.**

**Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235**

**(for DC applications, please note polarity of device)**

**Icu=10 kA**

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 4430596 | S201M-B6UC | 2CDS271061R0065 | | 0.125 | 10 |
| | 10 | 4430602 | S201M-B10UC | 2CDS271061R0105 | | 0.125 | 10 |
| | 13 | 4430619 | S201M-B13UC | 2CDS271061R0135 | | 0.125 | 10 |
| | 16 | 4430626 | S201M-B16UC | 2CDS271061R0165 | | 0.125 | 10 |
| | 20 | 4430633 | S201M-B20UC | 2CDS271061R0205 | | 0.125 | 10 |
| | 25 | 4430640 | S201M-B25UC | 2CDS271061R0255 | | 0.125 | 10 |
| | 32 | 4430657 | S201M-B32UC | 2CDS271061R0325 | | 0.125 | 10 |
| | 40 | 4430664 | S201M-B40UC | 2CDS271061R0405 | | 0.125 | 10 |
| | 50 | 4430671 | S201M-B50UC | 2CDS271061R0505 | | 0.125 | 10 |
| | 63 | 4430688 | S201M-B63UC | 2CDS271061R0635 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 6 | 4432811 | S202M-B6UC | 2CDS272061R0065 | | 0.250 | 5 |
| | 10 | 4432828 | S202M-B10UC | 2CDS272061R0105 | | 0.250 | 5 |
| | 13 | 4432835 | S202M-B13UC | 2CDS272061R0135 | | 0.250 | 5 |
| | 16 | 4432842 | S202M-B16UC | 2CDS272061R0165 | | 0.250 | 5 |
| | 20 | 4432859 | S202M-B20UC | 2CDS272061R0205 | | 0.250 | 5 |
| | 25 | 4432866 | S202M-B25UC | 2CDS272061R0255 | | 0.250 | 5 |
| | 32 | 4432873 | S202M-B32UC | 2CDS272061R0325 | | 0.250 | 5 |
| | 40 | 4432880 | S202M-B40UC | 2CDS272061R0405 | | 0.250 | 5 |
| | 50 | 4432897 | S202M-B50UC | 2CDS272061R0505 | | 0.250 | 5 |
| | 63 | 4432903 | S202M-B63UC | 2CDS272061R0635 | | 0.250 | 5 |

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S 203 M UC

| Number of poles | Rated current | Bbn 401361 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 4435034 | S203M-B6UC | 2CDS273061R0065 | | 0.375 | 1 |
| | 10 | 4435041 | S203M-B10UC | 2CDS273061R0105 | | 0.375 | 1 |
| | 13 | 4435058 | S203M-B13UC | 2CDS273061R0135 | | 0.375 | 1 |
| | 16 | 4435065 | S203M-B16UC | 2CDS273061R0165 | | 0.375 | 1 |
| | 20 | 4435072 | S203M-B20UC | 2CDS273061R0205 | | 0.375 | 1 |
| | 25 | 4435089 | S203M-B25UC | 2CDS273061R0255 | | 0.375 | 1 |
| | 32 | 4435096 | S203M-B32UC | 2CDS273061R0325 | | 0.375 | 1 |
| | 40 | 4435102 | S203M-B40UC | 2CDS273061R0405 | | 0.375 | 1 |
| | 50 | 4435119 | S203M-B50UC | 2CDS273061R0505 | | 0.375 | 1 |
| | 63 | 4435126 | S203M-B63UC | 2CDS273061R0635 | | 0.375 | 1 |




S 204 M UC

| Number of poles | Rated current | Bbn 401361 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 4437250 | S204M-B6UC | 2CDS274061R0065 | | 0.500 | 1 |
| | 10 | 4437267 | S204M-B10UC | 2CDS274061R0105 | | 0.500 | 1 |
| | 13 | 4437274 | S204M-B13UC | 2CDS274061R0135 | | 0.500 | 1 |
| | 16 | 4437281 | S204M-B16UC | 2CDS274061R0165 | | 0.500 | 1 |
| | 20 | 4437298 | S204M-B20UC | 2CDS274061R0205 | | 0.500 | 1 |
| | 25 | 4437304 | S204M-B25UC | 2CDS274061R0255 | | 0.500 | 1 |
| | 32 | 4437311 | S204M-B32UC | 2CDS274061R0325 | | 0.500 | 1 |
| | 40 | 4437328 | S204M-B40UC | 2CDS274061R0405 | | 0.500 | 1 |
| | 50 | 4437335 | S204M-B50UC | 2CDS274061R0505 | | 0.500 | 1 |
| | 63 | 4437342 | S204M-B63UC | 2CDS274061R0635 | | 0.500 | 1 |

# MCBs
## S 200 series M UC 10000 C characteristic
## Universal current range






S 201 M UC




S 202 M UC

### S 200 M UC C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.
**Applications: Industrial.**
**Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235**
**(for DC applications, please note polarity of device)**
**Icu=10 kA**

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 4430695 | S201M-C0.5UC | 2CDS271061R0984 | | 0.125 | 10 |
| | 1 | 4430701 | S201M-C1UC | 2CDS271061R0014 | | 0.125 | 10 |
| | 1.6 | 4430718 | S201M-C1.6UC | 2CDS271061R0974 | | 0.125 | 10 |
| | 2 | 4430725 | S201M-C2UC | 2CDS271061R0024 | | 0.125 | 10 |
| | 3 | 4430732 | S201M-C3UC | 2CDS271061R0034 | | 0.125 | 10 |
| | 4 | 4430749 | S201M-C4UC | 2CDS271061R0044 | | 0.125 | 10 |
| | 6 | 4430756 | S201M-C6UC | 2CDS271061R0064 | | 0.125 | 10 |
| | 8 | 4430763 | S201M-C8UC | 2CDS271061R0084 | | 0.125 | 10 |
| | 10 | 4430770 | S201M-C10UC | 2CDS271061R0104 | | 0.125 | 10 |
| | 13 | 4430787 | S201M-C13UC | 2CDS271061R0134 | | 0.125 | 10 |
| | 16 | 4430794 | S201M-C16UC | 2CDS271061R0164 | | 0.125 | 10 |
| | 20 | 4430800 | S201M-C20UC | 2CDS271061R0204 | | 0.125 | 10 |
| | 25 | 4430817 | S201M-C25UC | 2CDS271061R0254 | | 0.125 | 10 |
| | 32 | 4430824 | S201M-C32UC | 2CDS271061R0324 | | 0.125 | 10 |
| | 40 | 4430831 | S201M-C40UC | 2CDS271061R0404 | | 0.125 | 10 |
| | 50 | 4430848 | S201M-C50UC | 2CDS271061R0504 | | 0.125 | 10 |
| | 63 | 4430855 | S201M-C63UC | 2CDS271061R0634 | | 0.125 | 10 |

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | 4432910 | S202M-C0.5UC | 2CDS272061R0984 | | 0.250 | 5 |
| | 1 | 4432927 | S202M-C1UC | 2CDS272061R0014 | | 0.250 | 5 |
| | 1.6 | 4432934 | S202M-C1.6UC | 2CDS272061R0974 | | 0.250 | 5 |
| | 2 | 4432941 | S202M-C2UC | 2CDS272061R0024 | | 0.250 | 5 |
| | 3 | 4432958 | S202M-C3UC | 2CDS272061R0034 | | 0.250 | 5 |
| | 4 | 4432965 | S202M-C4UC | 2CDS272061R0044 | | 0.250 | 5 |
| | 6 | 4432972 | S202M-C6UC | 2CDS272061R0064 | | 0.250 | 5 |
| | 8 | 4432989 | S202M-C8UC | 2CDS272061R0084 | | 0.250 | 5 |
| | 10 | 4432996 | S202M-C10UC | 2CDS272061R0104 | | 0.250 | 5 |
| | 13 | 4433009 | S202M-C13UC | 2CDS272061R0134 | | 0.250 | 5 |
| | 16 | 4433016 | S202M-C16UC | 2CDS272061R0164 | | 0.250 | 5 |
| | 20 | 4433023 | S202M-C20UC | 2CDS272061R0204 | | 0.250 | 5 |
| | 25 | 4433030 | S202M-C25UC | 2CDS272061R0254 | | 0.250 | 5 |
| | 32 | 4433047 | S202M-C32UC | 2CDS272061R0324 | | 0.250 | 5 |
| | 40 | 4433054 | S202M-C40UC | 2CDS272061R0404 | | 0.250 | 5 |
| | 50 | 4433061 | S202M-C50UC | 2CDS272061R0504 | | 0.250 | 5 |
| | 63 | 4433078 | S202M-C63UC | 2CDS272061R0634 | | 0.250 | 5 |

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S 203 M UC




S 204 M UC

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 4435133 | S203M-C0.5UC | 2CDS273061R0984 | | 0.375 | 1 |
| | 1 | 4435140 | S203M-C1UC | 2CDS273061R0014 | | 0.375 | 1 |
| | 1.6 | 4435157 | S203M-C1.6UC | 2CDS273061R0974 | | 0.375 | 1 |
| | 2 | 4435164 | S203M-C2UC | 2CDS273061R0024 | | 0.375 | 1 |
| | 3 | 4435171 | S203M-C3UC | 2CDS273061R0034 | | 0.375 | 1 |
| | 4 | 4435188 | S203M-C4UC | 2CDS273061R0044 | | 0.375 | 1 |
| | 6 | 4435195 | S203M-C6UC | 2CDS273061R0064 | | 0.375 | 1 |
| | 8 | 4435201 | S203M-C8UC | 2CDS273061R0084 | | 0.375 | 1 |
| | 10 | 4435218 | S203M-C10UC | 2CDS273061R0104 | | 0.375 | 1 |
| | 13 | 4435225 | S203M-C13UC | 2CDS273061R0134 | | 0.375 | 1 |
| | 16 | 4435232 | S203M-C16UC | 2CDS273061R0164 | | 0.375 | 1 |
| | 20 | 4435249 | S203M-C20UC | 2CDS273061R0204 | | 0.375 | 1 |
| | 25 | 4435256 | S203M-C25UC | 2CDS273061R0254 | | 0.375 | 1 |
| | 32 | 4435263 | S203M-C32UC | 2CDS273061R0324 | | 0.375 | 1 |
| | 40 | 4435270 | S203M-C40UC | 2CDS273061R0404 | | 0.375 | 1 |
| | 50 | 4435287 | S203M-C50UC | 2CDS273061R0504 | | 0.375 | 1 |
| | 63 | 4435294 | S203M-C63UC | 2CDS273061R0634 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 4437359 | S204M-C0.5UC | 2CDS274061R0984 | | 0.500 | 1 |
| | 1 | 4437366 | S204M-C1UC | 2CDS274061R0014 | | 0.500 | 1 |
| | 1.6 | 4437373 | S204M-C1.6UC | 2CDS274061R0974 | | 0.500 | 1 |
| | 2 | 4437380 | S204M-C2UC | 2CDS274061R0024 | | 0.500 | 1 |
| | 3 | 4437397 | S204M-C3UC | 2CDS274061R0034 | | 0.500 | 1 |
| | 4 | 4437403 | S204M-C4UC | 2CDS274061R0044 | | 0.500 | 1 |
| | 6 | 4437410 | S204M-C6UC | 2CDS274061R0064 | | 0.500 | 1 |
| | 8 | 4437427 | S204M-C8UC | 2CDS274061R0084 | | 0.500 | 1 |
| | 10 | 4437434 | S204M-C10UC | 2CDS274061R0104 | | 0.500 | 1 |
| | 13 | 4437441 | S204M-C13UC | 2CDS274061R0134 | | 0.500 | 1 |
| | 16 | 4437458 | S204M-C16UC | 2CDS274061R0164 | | 0.500 | 1 |
| | 20 | 4437465 | S204M-C20UC | 2CDS274061R0204 | | 0.500 | 1 |
| | 25 | 4437472 | S204M-C25UC | 2CDS274061R0254 | | 0.500 | 1 |
| | 32 | 4437489 | S204M-C32UC | 2CDS274061R0324 | | 0.500 | 1 |
| | 40 | 4437496 | S204M-C40UC | 2CDS274061R0404 | | 0.500 | 1 |
| | 50 | 4437502 | S204M-C50UC | 2CDS274061R0504 | | 0.500 | 1 |
| | 63 | 4437519 | S204M-C63UC | 2CDS274061R0634 | | 0.500 | 1 |

# MCBs
## S 200 series M UC – Universal current range K characteristic






S 201 M UC

### S 200 M UC K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.
**Applications: Industrial.**
**Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235**
**(for DC applications, please note polarity of device)**
**Icu=10 kA**

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.2 | 4430862 | S201M-K0.2UC | 2CDS271061R0087 | | 0.125 | 10 |
| | 0.3 | 4430879 | S201M-K0.3UC | 2CDS271061R0117 | | 0.125 | 10 |
| | 0.5 | 4430886 | S201M-K0.5UC | 2CDS271061R0157 | | 0.125 | 10 |
| | 0.75 | 4430893 | S201M-K0.75UC | 2CDS271061R0187 | | 0.125 | 10 |
| | 1 | 4430909 | S201M-K1UC | 2CDS271061R0217 | | 0.125 | 10 |
| | 1.6 | 4430916 | S201M-K1.6UC | 2CDS271061R0257 | | 0.125 | 10 |
| | 2 | 4430923 | S201M-K2UC | 2CDS271061R0277 | | 0.125 | 10 |
| | 3 | 4430930 | S201M-K3UC | 2CDS271061R0317 | | 0.125 | 10 |
| | 4 | 4430947 | S201M-K4UC | 2CDS271061R0337 | | 0.125 | 10 |
| | 5 | 4430954 | S201M-K5UC | 2CDS271061R0357 | | 0.125 | 10 |
| | 6 | 4430961 | S201M-K6UC | 2CDS271061R0377 | | 0.125 | 10 |
| | 8 | 4430978 | S201M-K8UC | 2CDS271061R0407 | | 0.125 | 10 |
| | 10 | 4430985 | S201M-K10UC | 2CDS271061R0427 | | 0.125 | 10 |
| | 13 | 4430992 | S201M-K13UC | 2CDS271061R0447 | | 0.125 | 10 |
| | 15 | 4431005 | S201M-K15UC | 2CDS271061R0457 | | 0.125 | 10 |
| | 16 | 4431012 | S201M-K16UC | 2CDS271061R0467 | | 0.125 | 10 |
| | 20 | 4431029 | S201M-K20UC | 2CDS271061R0487 | | 0.125 | 10 |
| | 25 | 4431036 | S201M-K25UC | 2CDS271061R0517 | | 0.125 | 10 |
| | 30 | 4431043 | S201M-K30UC | 2CDS271061R0527 | | 0.125 | 10 |
| | 32 | 4431050 | S201M-K32UC | 2CDS271061R0537 | | 0.125 | 10 |
| | 35 | 4431067 | S201M-K35UC | 2CDS271061R0547 | | 0.125 | 10 |
| | 40 | 4431074 | S201M-K40UC | 2CDS271061R0557 | | 0.125 | 10 |
| | 50 | 4431081 | S201M-K50UC | 2CDS271061R0577 | | 0.125 | 10 |
| | 60 | 4431098 | S201M-K60UC | 2CDS271061R0587 | | 0.125 | 10 |
| | 63 | 4431104 | S201M-K63UC | 2CDS271061R0607 | | 0.125 | 10 |

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S 202 M UC

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.2 | 4433085 | S202M-K0.2UC | 2CDS272061R0087 | | 0.250 | 5 |
| | 0.3 | 4433092 | S202M-K0.3UC | 2CDS272061R0117 | | 0.250 | 5 |
| | 0.5 | 4433108 | S202M-K0.5UC | 2CDS272061R0157 | | 0.250 | 5 |
| | 0.75 | 4433115 | S202M-K0.75UC | 2CDS272061R0187 | | 0.250 | 5 |
| | 1 | 4433122 | S202M-K1UC | 2CDS272061R0217 | | 0.250 | 5 |
| | 1.6 | 4433139 | S202M-K1.6UC | 2CDS272061R0257 | | 0.250 | 5 |
| | 2 | 4433146 | S202M-K2UC | 2CDS272061R0277 | | 0.250 | 5 |
| | 3 | 4433153 | S202M-K3UC | 2CDS272061R0317 | | 0.250 | 5 |
| | 4 | 4433160 | S202M-K4UC | 2CDS272061R0337 | | 0.250 | 5 |
| | 5 | 4433177 | S202M-K5UC | 2CDS272061R0357 | | 0.250 | 5 |
| | 6 | 4433184 | S202M-K6UC | 2CDS272061R0377 | | 0.250 | 5 |
| | 8 | 4433191 | S202M-K8UC | 2CDS272061R0407 | | 0.250 | 5 |
| | 10 | 4433207 | S202M-K10UC | 2CDS272061R0427 | | 0.250 | 5 |
| | 13 | 4433214 | S202M-K13UC | 2CDS272061R0447 | | 0.250 | 5 |
| | 15 | 4433221 | S202M-K15UC | 2CDS272061R0457 | | 0.250 | 5 |
| | 16 | 4433238 | S202M-K16UC | 2CDS272061R0467 | | 0.250 | 5 |
| | 20 | 4433245 | S202M-K20UC | 2CDS272061R0487 | | 0.250 | 5 |
| | 25 | 4433252 | S202M-K25UC | 2CDS272061R0517 | | 0.250 | 5 |
| | 30 | 4433269 | S202M-K30UC | 2CDS272061R0527 | | 0.250 | 5 |
| | 32 | 4433276 | S202M-K32UC | 2CDS272061R0537 | | 0.250 | 5 |
| | 35 | 4433283 | S202M-K35UC | 2CDS272061R0547 | | 0.250 | 5 |
| | 40 | 4433290 | S202M-K40UC | 2CDS272061R0557 | | 0.250 | 5 |
| | 50 | 4433306 | S202M-K50UC | 2CDS272061R0577 | | 0.250 | 5 |
| | 60 | 4433313 | S202M-K60UC | 2CDS272061R0587 | | 0.250 | 5 |
| | 63 | 4433320 | S202M-K63UC | 2CDS272061R0607 | | 0.250 | 5 |




S 203 M UC

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.2 | 4435300 | S203M-K0.2UC | 2CDS273061R0087 | | 0.375 | 1 |
| | 0.3 | 4435317 | S203M-K0.3UC | 2CDS273061R0117 | | 0.375 | 1 |
| | 0.5 | 4435324 | S203M-K0.5UC | 2CDS273061R0157 | | 0.375 | 1 |
| | 0.75 | 4435331 | S203M-K0.75UC | 2CDS273061R0187 | | 0.375 | 1 |
| | 1 | 4435348 | S203M-K1UC | 2CDS273061R0217 | | 0.375 | 1 |
| | 1.6 | 4435355 | S203M-K1.6UC | 2CDS273061R0257 | | 0.375 | 1 |
| | 2 | 4435362 | S203M-K2UC | 2CDS273061R0277 | | 0.375 | 1 |
| | 3 | 4435379 | S203M-K3UC | 2CDS273061R0317 | | 0.375 | 1 |
| | 4 | 4435386 | S203M-K4UC | 2CDS273061R0337 | | 0.375 | 1 |
| | 5 | 4435393 | S203M-K5UC | 2CDS273061R0357 | | 0.375 | 1 |
| | 6 | 4435409 | S203M-K6UC | 2CDS273061R0377 | | 0.375 | 1 |
| | 8 | 4435416 | S203M-K8UC | 2CDS273061R0407 | | 0.375 | 1 |
| | 10 | 4435423 | S203M-K10UC | 2CDS273061R0427 | | 0.375 | 1 |
| | 13 | 4435430 | S203M-K13UC | 2CDS273061R0447 | | 0.375 | 1 |
| | 15 | 4435447 | S203M-K15UC | 2CDS273061R0457 | | 0.375 | 1 |
| | 16 | 4435454 | S203M-K16UC | 2CDS273061R0467 | | 0.375 | 1 |
| | 20 | 4435461 | S203M-K20UC | 2CDS273061R0487 | | 0.375 | 1 |
| | 25 | 4435478 | S203M-K25UC | 2CDS273061R0517 | | 0.375 | 1 |
| | 30 | 4435485 | S203M-K30UC | 2CDS273061R0527 | | 0.375 | 1 |
| | 32 | 4435492 | S203M-K32UC | 2CDS273061R0537 | | 0.375 | 1 |
| | 35 | 4435508 | S203M-K35UC | 2CDS273061R0547 | | 0.375 | 1 |
| | 40 | 4435515 | S203M-K40UC | 2CDS273061R0557 | | 0.375 | 1 |
| | 50 | 4435522 | S203M-K50UC | 2CDS273061R0577 | | 0.375 | 1 |
| | 60 | 4435539 | S203M-K60UC | 2CDS273061R0587 | | 0.375 | 1 |
| | 63 | 4435546 | S203M-K63UC | 2CDS273061R0607 | | 0.375 | 1 |

# MCBs
## S 200 series M UC – Universal current range K characteristic






S 204 M UC

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.2 | 4437526 | S204M-K0.2UC | 2CDS274061R0087 | | 0.500 | 1 |
| | 0.3 | 4437533 | S204M-K0.3UC | 2CDS274061R0117 | | 0.500 | 1 |
| | 0.5 | 4437540 | S204M-K0.5UC | 2CDS274061R0157 | | 0.500 | 1 |
| | 0.75 | 4437557 | S204M-K0.75UC | 2CDS274061R0187 | | 0.500 | 1 |
| | 1 | 4437564 | S204M-K1UC | 2CDS274061R0217 | | 0.500 | 1 |
| | 1.6 | 4437571 | S204M-K1.6UC | 2CDS274061R0257 | | 0.500 | 1 |
| | 2 | 4437588 | S204M-K2UC | 2CDS274061R0277 | | 0.500 | 1 |
| | 3 | 4437595 | S204M-K3UC | 2CDS274061R0317 | | 0.500 | 1 |
| | 4 | 4437601 | S204M-K4UC | 2CDS274061R0337 | | 0.500 | 1 |
| | 5 | 4437618 | S204M-K5UC | 2CDS274061R0357 | | 0.500 | 1 |
| | 6 | 4437625 | S204M-K6UC | 2CDS274061R0377 | | 0.500 | 1 |
| | 8 | 4437632 | S204M-K8UC | 2CDS274061R0407 | | 0.500 | 1 |
| | 10 | 4437649 | S204M-K10UC | 2CDS274061R0427 | | 0.500 | 1 |
| | 13 | 4437656 | S204M-K13UC | 2CDS274061R0447 | | 0.500 | 1 |
| | 15 | 4437663 | S204M-K15UC | 2CDS274061R0457 | | 0.500 | 1 |
| | 16 | 4437670 | S204M-K16UC | 2CDS274061R0467 | | 0.500 | 1 |
| | 20 | 4437687 | S204M-K20UC | 2CDS274061R0487 | | 0.500 | 1 |
| | 25 | 4437694 | S204M-K25UC | 2CDS274061R0517 | | 0.500 | 1 |
| | 30 | 4437700 | S204M-K30UC | 2CDS274061R0527 | | 0.500 | 1 |
| | 32 | 4437717 | S204M-K32UC | 2CDS274061R0537 | | 0.500 | 1 |
| | 35 | 4437724 | S204M-K35UC | 2CDS274061R0547 | | 0.500 | 1 |
| | 40 | 4437731 | S204M-K40UC | 2CDS274061R0557 | | 0.500 | 1 |
| | 50 | 4437748 | S204M-K50UC | 2CDS274061R0577 | | 0.500 | 1 |
| | 60 | 4437755 | S204M-K60UC | 2CDS274061R0587 | | 0.500 | 1 |
| | 63 | 4437762 | S204M-K63UC | 2CDS274061R0607 | | 0.500 | 1 |

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# S 200 series M UC – Universal current range Z characteristic






S 201 M UC




S 202 M UC

## S 200 M UC Z characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

**Applications: Industrial.**

**Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235**

**(for DC applications, please note polarity of device)**

**Icu=10 kA**

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 4431111 | S201M-Z0.5UC | 2CDS271061R0158 | | 0.125 | 1 |
| | 1 | 4431128 | S201M-Z1UC | 2CDS271061R0218 | | 0.125 | 1 |
| | 1.6 | 4431135 | S201M-Z1.6UC | 2CDS271061R0258 | | 0.125 | 1 |
| | 2 | 4431142 | S201M-Z2UC | 2CDS271061R0278 | | 0.125 | 1 |
| | 3 | 4431159 | S201M-Z3UC | 2CDS271061R0318 | | 0.125 | 1 |
| | 4 | 4431166 | S201M-Z4UC | 2CDS271061R0338 | | 0.125 | 1 |
| | 5 | 4431173 | S201M-Z5UC | 2CDS271061R0358 | | 0.125 | 1 |
| | 6 | 4431180 | S201M-Z6UC | 2CDS271061R0378 | | 0.125 | 1 |
| | 8 | 4431197 | S201M-Z8UC | 2CDS271061R0408 | | 0.125 | 1 |
| | 10 | 4431203 | S201M-Z10UC | 2CDS271061R0428 | | 0.125 | 1 |
| | 15 | 4431227 | S201M-Z15UC | 2CDS271061R0458 | | 0.125 | 1 |
| | 16 | 4431234 | S201M-Z16UC | 2CDS271061R0468 | | 0.125 | 1 |
| | 20 | 4431241 | S201M-Z20UC | 2CDS271061R0488 | | 0.125 | 1 |
| | 25 | 4431258 | S201M-Z25UC | 2CDS271061R0518 | | 0.125 | 1 |
| | 30 | 4431265 | S201M-Z30UC | 2CDS271061R0528 | | 0.125 | 1 |
| | 32 | 4431272 | S201M-Z32UC | 2CDS271061R0538 | | 0.125 | 1 |
| | 35 | 4431289 | S201M-Z35UC | 2CDS271061R0548 | | 0.125 | 1 |
| | 40 | 4431296 | S201M-Z40UC | 2CDS271061R0558 | | 0.125 | 1 |
| | 50 | 4431302 | S201M-Z50UC | 2CDS271061R0578 | | 0.125 | 1 |
| | 60 | 4431319 | S201M-Z60UC | 2CDS271061R0588 | | 0.125 | 1 |
| | 63 | 4431326 | S201M-Z63UC | 2CDS271061R0608 | | 0.125 | 1 |
| 2 | 0.5 | 4433337 | S202M-Z0.5UC | 2CDS272061R0158 | | 0.250 | 5 |
| | 1 | 4433344 | S202M-Z1UC | 2CDS272061R0218 | | 0.250 | 5 |
| | 1.6 | 4433351 | S202M-Z1.6UC | 2CDS272061R0258 | | 0.250 | 5 |
| | 2 | 4433368 | S202M-Z2UC | 2CDS272061R0278 | | 0.250 | 5 |
| | 3 | 4433375 | S202M-Z3UC | 2CDS272061R0318 | | 0.250 | 5 |
| | 4 | 4433382 | S202M-Z4UC | 2CDS272061R0338 | | 0.250 | 5 |
| | 5 | 4433399 | S202M-Z5UC | 2CDS272061R0358 | | 0.250 | 5 |
| | 6 | 4433405 | S202M-Z6UC | 2CDS272061R0378 | | 0.250 | 5 |
| | 8 | 4433412 | S202M-Z8UC | 2CDS272061R0408 | | 0.250 | 5 |
| | 10 | 4433429 | S202M-Z10UC | 2CDS272061R0428 | | 0.250 | 5 |
| | 15 | 4433443 | S202M-Z15UC | 2CDS272061R0458 | | 0.250 | 5 |
| | 16 | 4433450 | S202M-Z16UC | 2CDS272061R0468 | | 0.250 | 5 |
| | 20 | 4433467 | S202M-Z20UC | 2CDS272061R0488 | | 0.250 | 5 |
| | 25 | 4433474 | S202M-Z25UC | 2CDS272061R0518 | | 0.250 | 5 |
| | 30 | 4433481 | S202M-Z30UC | 2CDS272061R0528 | | 0.250 | 5 |
| | 32 | 4433498 | S202M-Z32UC | 2CDS272061R0538 | | 0.250 | 5 |
| | 35 | 4433504 | S202M-Z35UC | 2CDS272061R0548 | | 0.250 | 5 |
| | 40 | 4433511 | S202M-Z40UC | 2CDS272061R0558 | | 0.250 | 5 |
| | 50 | 4433528 | S202M-Z50UC | 2CDS272061R0578 | | 0.250 | 5 |
| | 60 | 4433535 | S202M-Z60UC | 2CDS272061R0588 | | 0.250 | 5 |
| | 63 | 4433542 | S202M-Z63UC | 2CDS272061R0608 | | 0.250 | 5 |

# MCBs
## S 200 series M UC – Universal current range Z characteristic






S 203 M UC




S 204 M UC

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 4435553 | S203M-Z0.5UC | 2CDS273061R0158 | | 0.375 | 1 |
| | 1 | 4435560 | S203M-Z1UC | 2CDS273061R0218 | | 0.375 | 1 |
| | 1.6 | 4435577 | S203M-Z1.6UC | 2CDS273061R0258 | | 0.375 | 1 |
| | 2 | 4435584 | S203M-Z2UC | 2CDS273061R0278 | | 0.375 | 1 |
| | 3 | 4435591 | S203M-Z3UC | 2CDS273061R0318 | | 0.375 | 1 |
| | 4 | 4435607 | S203M-Z4UC | 2CDS273061R0338 | | 0.375 | 1 |
| | 5 | 4435614 | S203M-Z5UC | 2CDS273061R0358 | | 0.375 | 1 |
| | 6 | 4435621 | S203M-Z6UC | 2CDS273061R0378 | | 0.375 | 1 |
| | 8 | 4435638 | S203M-Z8UC | 2CDS273061R0408 | | 0.375 | 1 |
| | 10 | 4435645 | S203M-Z10UC | 2CDS273061R0428 | | 0.375 | 1 |
| | 15 | 4435669 | S203M-Z15UC | 2CDS273061R0458 | | 0.375 | 1 |
| | 16 | 4435676 | S203M-Z16UC | 2CDS273061R0468 | | 0.375 | 1 |
| | 20 | 4435683 | S203M-Z20UC | 2CDS273061R0488 | | 0.375 | 1 |
| | 25 | 4435690 | S203M-Z25UC | 2CDS273061R0518 | | 0.375 | 1 |
| | 30 | 4435706 | S203M-Z30UC | 2CDS273061R0528 | | 0.375 | 1 |
| | 32 | 4435713 | S203M-Z32UC | 2CDS273061R0538 | | 0.375 | 1 |
| | 35 | 4435720 | S203M-Z35UC | 2CDS273061R0548 | | 0.375 | 1 |
| | 40 | 4435737 | S203M-Z40UC | 2CDS273061R0558 | | 0.375 | 1 |
| | 50 | 4435744 | S203M-Z50UC | 2CDS273061R0578 | | 0.375 | 1 |
| | 60 | 4435751 | S203M-Z60UC | 2CDS273061R0588 | | 0.375 | 1 |
| | 63 | 4435768 | S203M-Z63UC | 2CDS273061R0608 | | 0.375 | 1 |

| Number of poles | Rated current In A | Bbn 401361 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 4437779 | S204M-Z0.5UC | 2CDS274061R0158 | | 0.500 | 1 |
| | 1 | 4437786 | S204M-Z1UC | 2CDS274061R0218 | | 0.500 | 1 |
| | 1.6 | 4437793 | S204M-Z1.6UC | 2CDS274061R0258 | | 0.500 | 1 |
| | 2 | 4437809 | S204M-Z2UC | 2CDS274061R0278 | | 0.500 | 1 |
| | 3 | 4437816 | S204M-Z3UC | 2CDS274061R0318 | | 0.500 | 1 |
| | 4 | 4437823 | S204M-Z4UC | 2CDS274061R0338 | | 0.500 | 1 |
| | 5 | 4437830 | S204M-Z5UC | 2CDS274061R0358 | | 0.500 | 1 |
| | 6 | 4437847 | S204M-Z6UC | 2CDS274061R0378 | | 0.500 | 1 |
| | 8 | 4437854 | S204M-Z8UC | 2CDS274061R0408 | | 0.500 | 1 |
| | 10 | 4437861 | S204M-Z10UC | 2CDS274061R0428 | | 0.500 | 1 |
| | 15 | 4437885 | S204M-Z15UC | 2CDS274061R0458 | | 0.500 | 1 |
| | 16 | 4437892 | S204M-Z16UC | 2CDS274061R0468 | | 0.500 | 1 |
| | 20 | 4437908 | S204M-Z20UC | 2CDS274061R0488 | | 0.500 | 1 |
| | 25 | 4437915 | S204M-Z25UC | 2CDS274061R0518 | | 0.500 | 1 |
| | 30 | 4437922 | S204M-Z30UC | 2CDS274061R0528 | | 0.500 | 1 |
| | 32 | 4437939 | S204M-Z32UC | 2CDS274061R0538 | | 0.500 | 1 |
| | 35 | 4437946 | S204M-Z35UC | 2CDS274061R0548 | | 0.500 | 1 |
| | 40 | 4437953 | S204M-Z40UC | 2CDS274061R0558 | | 0.500 | 1 |
| | 50 | 4437960 | S204M-Z50UC | 2CDS274061R0578 | | 0.500 | 1 |
| | 60 | 4437977 | S204M-Z60UC | 2CDS274061R0588 | | 0.500 | 1 |
| | 63 | 4437984 | S204M-Z63UC | 2CDS274061R0608 | | 0.500 | 1 |

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# MCBs
# S 200 series P 25000 - 15000 B characteristic




S 201 P




S 202 P




S 203 P

## S 200 P-B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60898-1**

**Icn=25 kA for 0.5 A≤In≤25 A**

**Icn=15 kA for 32 A≤In≤63 A**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 589574 | S201P-B6 | 2CDS281001R0065 | | 0.14 | 10 |
| | 10 | 589581 | S201P-B10 | 2CDS281001R0105 | | 0.14 | 10 |
| | 13 | 589598 | S201P-B13 | 2CDS281001R0135 | | 0.14 | 10 |
| | 16 | 589260 | S201P-B16 | 2CDS281001R0165 | | 0.14 | 10 |
| | 20 | 589604 | S201P-B20 | 2CDS281001R0205 | | 0.14 | 10 |
| | 25 | 589611 | S201P-B25 | 2CDS281001R0255 | | 0.14 | 10 |
| | 32 | 589628 | S201P-B32 | 2CDS281001R0325 | | 0.14 | 10 |
| | 40 | 589635 | S201P-B40 | 2CDS281001R0405 | | 0.14 | 10 |
| | 50 | 589659 | S201P-B50 | 2CDS281001R0505 | | 0.14 | 10 |
| | 63 | 589666 | S201P-B63 | 2CDS281001R0635 | | 0.14 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 6 | 589673 | S202P-B6 | 2CDS282001R0065 | | 0.28 | 5 |
| | 10 | 589680 | S202P-B10 | 2CDS282001R0105 | | 0.28 | 5 |
| | 13 | 589697 | S202P-B13 | 2CDS282001R0135 | | 0.28 | 5 |
| | 16 | 589703 | S202P-B16 | 2CDS282001R0165 | | 0.28 | 5 |
| | 20 | 589710 | S202P-B20 | 2CDS282001R0205 | | 0.28 | 5 |
| | 25 | 589727 | S202P-B25 | 2CDS282001R0255 | | 0.28 | 5 |
| | 32 | 589734 | S202P-B32 | 2CDS282001R0325 | | 0.28 | 5 |
| | 40 | 589741 | S202P-B40 | 2CDS282001R0405 | | 0.28 | 5 |
| | 50 | 589758 | S202P-B50 | 2CDS282001R0505 | | 0.28 | 5 |
| | 63 | 589765 | S202P-B63 | 2CDS282001R0635 | | 0.28 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 6 | 589772 | S203P-B6 | 2CDS283001R0065 | | 0.42 | 1 |
| | 10 | 589789 | S203P-B10 | 2CDS283001R0105 | | 0.42 | 1 |
| | 13 | 589796 | S203P-B13 | 2CDS283001R0135 | | 0.42 | 1 |
| | 16 | 589802 | S203P-B16 | 2CDS283001R0165 | | 0.42 | 1 |
| | 20 | 589819 | S203P-B20 | 2CDS283001R0205 | | 0.42 | 1 |
| | 25 | 589826 | S203P-B25 | 2CDS283001R0255 | | 0.42 | 1 |
| | 32 | 589833 | S203P-B32 | 2CDS283001R0325 | | 0.42 | 1 |
| | 40 | 589840 | S203P-B40 | 2CDS283001R0405 | | 0.42 | 1 |
| | 50 | 589857 | S203P-B50 | 2CDS283001R0505 | | 0.42 | 1 |
| | 63 | 589864 | S203P-B63 | 2CDS283001R0635 | | 0.42 | 1 |

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# MCBs
## S 200 series P 25000 - 15000 B characteristic






S 204 P

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 6 | 589871 | S204P-B6 | 2CDS284001R0065 | | 0.56 | 1 |
| | 10 | 589888 | S204P-B10 | 2CDS284001R0105 | | 0.56 | 1 |
| | 13 | 589895 | S204P-B13 | 2CDS284001R0135 | | 0.56 | 1 |
| | 16 | 589901 | S204P-B16 | 2CDS284001R0165 | | 0.56 | 1 |
| | 20 | 589918 | S204P-B20 | 2CDS284001R0205 | | 0.56 | 1 |
| | 25 | 589925 | S204P-B25 | 2CDS284001R0255 | | 0.56 | 1 |
| | 32 | 589932 | S204P-B32 | 2CDS284001R0325 | | 0.56 | 1 |
| | 40 | 589949 | S204P-B40 | 2CDS284001R0405 | | 0.56 | 1 |
| | 50 | 589956 | S204P-B50 | 2CDS284001R0505 | | 0.56 | 1 |
| | 63 | 589963 | S204P-B63 | 2CDS284001R0635 | | 0.56 | 1 |




S 201 P NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 6 | 589970 | S201P-B6NA | 2CDS281103R0065 | | 0.28 | 5 |
| | 10 | 589987 | S201P-B10NA | 2CDS281103R0105 | | 0.28 | 5 |
| | 13 | 589994 | S201P-B13NA | 2CDS281103R0135 | | 0.28 | 5 |
| | 16 | 590006 | S201P-B16NA | 2CDS281103R0165 | | 0.28 | 5 |
| | 20 | 590013 | S201P-B20NA | 2CDS281103R0205 | | 0.28 | 5 |
| | 25 | 590020 | S201P-B25NA | 2CDS281103R0255 | | 0.28 | 5 |
| | 32 | 590037 | S201P-B32NA | 2CDS281103R0325 | | 0.28 | 5 |
| | 40 | 590044 | S201P-B40NA | 2CDS281103R0405 | | 0.28 | 5 |
| | 50 | 590051 | S201P-B50NA | 2CDS281103R0505 | | 0.28 | 5 |
| | 63 | 590068 | S201P-B63NA | 2CDS281103R0635 | | 0.28 | 5 |




S 203 P NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 6 | 590075 | S203P-B6NA | 2CDS283103R0065 | | 0.56 | 1 |
| | 10 | 590082 | S203P-B10NA | 2CDS283103R0105 | | 0.56 | 1 |
| | 13 | 590099 | S203P-B13NA | 2CDS283103R0135 | | 0.56 | 1 |
| | 16 | 590105 | S203P-B16NA | 2CDS283103R0165 | | 0.56 | 1 |
| | 20 | 590112 | S203P-B20NA | 2CDS283103R0205 | | 0.56 | 1 |
| | 25 | 590129 | S203P-B25NA | 2CDS283103R0255 | | 0.56 | 1 |
| | 32 | 590136 | S203P-B32NA | 2CDS283103R0325 | | 0.56 | 1 |
| | 40 | 590143 | S203P-B40NA | 2CDS283103R0405 | | 0.56 | 1 |
| | 50 | 590150 | S203P-B50NA | 2CDS283103R0505 | | 0.56 | 1 |
| | 63 | 590167 | S203P-B63NA | 2CDS283103R0635 | | 0.56 | 1 |

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# MCBs
# S 200 series P 25000 - 15000 C characteristic




S 201 P




S 202 P

## S 200 P-C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60898-1**

**Icn=25 kA for 0.5 A≤In≤25 A**

**Icn=15 kA for 32 A≤In≤63 A**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 590174 | S201P-C0.5 | 2CDS281001R0984 | | 0.14 | 10 |
| | 1 | 590181 | S201P-C1 | 2CDS281001R0014 | | 0.14 | 10 |
| | 1.6 | 590198 | S201P-C1.6 | 2CDS281001R0974 | | 0.14 | 10 |
| | 2 | 590204 | S201P-C2 | 2CDS281001R0024 | | 0.14 | 10 |
| | 3 | 590211 | S201P-C3 | 2CDS281001R0034 | | 0.14 | 10 |
| | 4 | 590228 | S201P-C4 | 2CDS281001R0044 | | 0.14 | 10 |
| | 6 | 590235 | S201P-C6 | 2CDS281001R0064 | | 0.14 | 10 |
| | 8 | 590242 | S201P-C8 | 2CDS281001R0084 | | 0.14 | 10 |
| | 10 | 590259 | S201P-C10 | 2CDS281001R0104 | | 0.14 | 10 |
| | 13 | 590266 | S201P-C13 | 2CDS281001R0134 | | 0.14 | 10 |
| | 16 | 590273 | S201P-C16 | 2CDS281001R0164 | | 0.14 | 10 |
| | 20 | 590280 | S201P-C20 | 2CDS281001R0204 | | 0.14 | 10 |
| | 25 | 590297 | S201P-C25 | 2CDS281001R0254 | | 0.14 | 10 |
| | 32 | 590303 | S201P-C32 | 2CDS281001R0324 | | 0.14 | 10 |
| | 40 | 590310 | S201P-C40 | 2CDS281001R0404 | | 0.14 | 10 |
| | 50 | 590327 | S201P-C50 | 2CDS281001R0504 | | 0.14 | 10 |
| | 63 | 590334 | S201P-C63 | 2CDS281001R0634 | | 0.14 | 10 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | 590341 | S202P-C0.5 | 2CDS282001R0984 | | 0.28 | 5 |
| | 1 | 590358 | S202P-C1 | 2CDS282001R0014 | | 0.28 | 5 |
| | 1.6 | 590365 | S202P-C1.6 | 2CDS282001R0974 | | 0.28 | 5 |
| | 2 | 590372 | S202P-C2 | 2CDS282001R0024 | | 0.28 | 5 |
| | 3 | 590389 | S202P-C3 | 2CDS282001R0034 | | 0.28 | 5 |
| | 4 | 590396 | S202P-C4 | 2CDS282001R0044 | | 0.28 | 5 |
| | 6 | 590402 | S202P-C6 | 2CDS282001R0064 | | 0.28 | 5 |
| | 8 | 590419 | S202P-C8 | 2CDS282001R0084 | | 0.28 | 5 |
| | 10 | 590426 | S202P-C10 | 2CDS282001R0104 | | 0.28 | 5 |
| | 13 | 590433 | S202P-C13 | 2CDS282001R0134 | | 0.28 | 5 |
| | 16 | 590440 | S202P-C16 | 2CDS282001R0164 | | 0.28 | 5 |
| | 20 | 590457 | S202P-C20 | 2CDS282001R0204 | | 0.28 | 5 |
| | 25 | 590464 | S202P-C25 | 2CDS282001R0254 | | 0.28 | 5 |
| | 32 | 590471 | S202P-C32 | 2CDS282001R0324 | | 0.28 | 5 |
| | 40 | 590488 | S202P-C40 | 2CDS282001R0404 | | 0.28 | 5 |
| | 50 | 590495 | S202P-C50 | 2CDS282001R0504 | | 0.28 | 5 |
| | 63 | 590501 | S202P-C63 | 2CDS 282 001 R0634 | | 0.28 | 5 |

# MCBs
## S 200 series P 25000 - 15000 C characteristic






S 203 P




S 204 P

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 590518 | S203P-C0.5 | 2CDS283001R0984 | | 0.42 | 1 |
| | 1 | 590525 | S203P-C1 | 2CDS283001R0014 | | 0.42 | 1 |
| | 1.6 | 590532 | S203P-C1.6 | 2CDS283001R0974 | | 0.42 | 1 |
| | 2 | 590549 | S203P-C2 | 2CDS283001R0024 | | 0.42 | 1 |
| | 3 | 590556 | S203P-C3 | 2CDS283001R0034 | | 0.42 | 1 |
| | 4 | 590563 | S203P-C4 | 2CDS283001R0044 | | 0.42 | 1 |
| | 6 | 590570 | S203P-C6 | 2CDS283001R0064 | | 0.42 | 1 |
| | 8 | 590587 | S203P-C8 | 2CDS283001R0084 | | 0.42 | 1 |
| | 10 | 590594 | S203P-C10 | 2CDS283001R0104 | | 0.42 | 1 |
| | 13 | 590600 | S203P-C13 | 2CDS283001R0134 | | 0.42 | 1 |
| | 16 | 590617 | S203P-C16 | 2CDS283001R0164 | | 0.42 | 1 |
| | 20 | 590624 | S203P-C20 | 2CDS283001R0204 | | 0.42 | 1 |
| | 25 | 590631 | S203P-C25 | 2CDS283001R0254 | | 0.42 | 1 |
| | 32 | 590648 | S203P-C32 | 2CDS283001R0324 | | 0.42 | 1 |
| | 40 | 590655 | S203P-C40 | 2CDS283001R0404 | | 0.42 | 1 |
| | 50 | 590662 | S203P-C50 | 2CDS283001R0504 | | 0.42 | 1 |
| | 63 | 590679 | S203P-C63 | 2CDS283001R0634 | | 0.42 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 590686 | S204P-C0.5 | 2CDS284001R0984 | | 0.56 | 1 |
| | 1 | 590693 | S204P-C1 | 2CDS284001R0014 | | 0.56 | 1 |
| | 1.6 | 590709 | S204P-C1.6 | 2CDS284001R0974 | | 0.56 | 1 |
| | 2 | 590716 | S204P-C2 | 2CDS284001R0024 | | 0.56 | 1 |
| | 3 | 590723 | S204P-C3 | 2CDS284001R0034 | | 0.56 | 1 |
| | 4 | 590730 | S204P-C4 | 2CDS284001R0044 | | 0.56 | 1 |
| | 6 | 590747 | S204P-C6 | 2CDS284001R0064 | | 0.56 | 1 |
| | 8 | 590754 | S204P-C8 | 2CDS284001R0084 | | 0.56 | 1 |
| | 10 | 590761 | S204P-C10 | 2CDS284001R0104 | | 0.56 | 1 |
| | 13 | 590778 | S204P-C13 | 2CDS284001R0134 | | 0.56 | 1 |
| | 16 | 590785 | S204P-C16 | 2CDS284001R0164 | | 0.56 | 1 |
| | 20 | 590792 | S204P-C20 | 2CDS284001R0204 | | 0.56 | 1 |
| | 25 | 590808 | S204P-C25 | 2CDS284001R0254 | | 0.56 | 1 |
| | 32 | 590815 | S204P-C32 | 2CDS284001R0324 | | 0.56 | 1 |
| | 40 | 590822 | S204P-C40 | 2CDS284001R0404 | | 0.56 | 1 |
| | 50 | 590839 | S204P-C50 | 2CDS284001R0504 | | 0.56 | 1 |
| | 63 | 590846 | S204P-C63 | 2CDS284001R0634 | | 0.56 | 1 |

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S 201 P NA




S 203 P NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 590853 | S201P-C0.5NA | 2CDS281103R0984 | | 0.28 | 5 |
| | 1 | 590860 | S201P-C1NA | 2CDS281103R0014 | | 0.28 | 5 |
| | 1.6 | 590877 | S201P-C1.6NA | 2CDS281103R0974 | | 0.28 | 5 |
| | 2 | 590884 | S201P-C2NA | 2CDS281103R0024 | | 0.28 | 5 |
| | 3 | 590891 | S201P-C3NA | 2CDS281103R0034 | | 0.28 | 5 |
| | 4 | 590907 | S201P-C4NA | 2CDS281103R0044 | | 0.28 | 5 |
| | 6 | 590914 | S201P-C6NA | 2CDS281103R0064 | | 0.28 | 5 |
| | 8 | 590921 | S201P-C8NA | 2CDS281103R0084 | | 0.28 | 5 |
| | 10 | 590938 | S201P-C10NA | 2CDS281103R0104 | | 0.28 | 5 |
| | 13 | 590945 | S201P-C13NA | 2CDS281103R0134 | | 0.28 | 5 |
| | 16 | 590952 | S201P-C16NA | 2CDS281103R0164 | | 0.28 | 5 |
| | 20 | 590969 | S201P-C20NA | 2CDS281103R0204 | | 0.28 | 5 |
| | 25 | 590976 | S201P-C25NA | 2CDS281103R0254 | | 0.28 | 5 |
| | 32 | 590983 | S201P-C32NA | 2CDS281103R0324 | | 0.28 | 5 |
| | 40 | 590990 | S201P-C40NA | 2CDS281103R0404 | | 0.28 | 5 |
| | 50 | 591003 | S201P-C50NA | 2CDS281103R0504 | | 0.28 | 5 |
| | 63 | 591010 | S201P-C63NA | 2CDS281103R0634 | | 0.28 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 591027 | S203P-C0.5NA | 2CDS283103R0984 | | 0.56 | 1 |
| | 1 | 591034 | S203P-C1NA | 2CDS283103R0014 | | 0.56 | 1 |
| | 1.6 | 591041 | S203P-C1.6NA | 2CDS283103R0974 | | 0.56 | 1 |
| | 2 | 591058 | S203P-C2NA | 2CDS283103R0024 | | 0.56 | 1 |
| | 3 | 591065 | S203P-C3NA | 2CDS283103R0034 | | 0.56 | 1 |
| | 4 | 591072 | S203P-C4NA | 2CDS283103R0044 | | 0.56 | 1 |
| | 6 | 591089 | S203P-C6NA | 2CDS283103R0064 | | 0.56 | 1 |
| | 8 | 591096 | S203P-C8NA | 2CDS283103R0084 | | 0.56 | 1 |
| | 10 | 591102 | S203P-C10NA | 2CDS283103R0104 | | 0.56 | 1 |
| | 13 | 591119 | S203P-C13NA | 2CDS283103R0134 | | 0.56 | 1 |
| | 16 | 591126 | S203P-C16NA | 2CDS283103R0164 | | 0.56 | 1 |
| | 20 | 591133 | S203P-C20NA | 2CDS283103R0204 | | 0.56 | 1 |
| | 25 | 591140 | S203P-C25NA | 2CDS283103R0254 | | 0.56 | 1 |
| | 32 | 591157 | S203P-C32NA | 2CDS283103R0324 | | 0.56 | 1 |
| | 40 | 591164 | S203P-C40NA | 2CDS283103R0404 | | 0.56 | 1 |
| | 50 | 591171 | S203P-C50NA | 2CDS283103R0504 | | 0.56 | 1 |
| | 63 | 591188 | S203P-C63NA | 2CDS283103R0634 | | 0.56 | 1 |

# MCBs
# S 200 series P 25000 - 15000 D characteristic






S 201 P




S 202 P

## S 200 P-D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

**Applications: commercial and industrial.**

**Standard: IEC/EN 60898-1**

**Icn=25 kA for 0.5 A≤In≤25 A**

**Icn=15 kA for 32 A≤In≤63 A**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 591195 | S201P-D0.5 | 2CDS281001R0981 | | 0.14 | 10 |
| | 1 | 591201 | S201P-D1 | 2CDS281001R0011 | | 0.14 | 10 |
| | 1.6 | 591218 | S201P-D1.6 | 2CDS281001R0971 | | 0.14 | 10 |
| | 2 | 591225 | S201P-D2 | 2CDS281001R0021 | | 0.14 | 10 |
| | 3 | 591232 | S201P-D3 | 2CDS281001R0031 | | 0.14 | 10 |
| | 4 | 591249 | S201P-D4 | 2CDS281001R0041 | | 0.14 | 10 |
| | 6 | 591256 | S201P-D6 | 2CDS281001R0061 | | 0.14 | 10 |
| | 8 | 591263 | S201P-D8 | 2CDS281001R0081 | | 0.14 | 10 |
| | 10 | 591270 | S201P-D10 | 2CDS281001R0101 | | 0.14 | 10 |
| | 13 | 591287 | S201P-D13 | 2CDS281001R0131 | | 0.14 | 10 |
| | 16 | 591294 | S201P-D16 | 2CDS281001R0161 | | 0.14 | 10 |
| | 20 | 591300 | S201P-D20 | 2CDS281001R0201 | | 0.14 | 10 |
| | 25 | 591317 | S201P-D25 | 2CDS281001R0251 | | 0.14 | 10 |
| | 32 | 591324 | S201P-D32 | 2CDS281001R0321 | | 0.14 | 10 |
| | 40 | 591331 | S201P-D40 | 2CDS281001R0401 | | 0.14 | 10 |
| | 50 | 591348 | S201P-D50 | 2CDS281001R0501 | | 0.14 | 10 |
| | 63 | 591355 | S201P-D63 | 2CDS281001R0631 | | 0.14 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 591362 | S202P-D0.5 | 2CDS282001R0981 | | 0.28 | 5 |
| | 1 | 591379 | S202P-D1 | 2CDS282001R0011 | | 0.28 | 5 |
| | 1.6 | 591386 | S202P-D1.6 | 2CDS282001R0971 | | 0.28 | 5 |
| | 2 | 591393 | S202P-D2 | 2CDS282001R0021 | | 0.28 | 5 |
| | 3 | 591409 | S202P-D3 | 2CDS282001R0031 | | 0.28 | 5 |
| | 4 | 591416 | S202P-D4 | 2CDS282001R0041 | | 0.28 | 5 |
| | 6 | 591423 | S202P-D6 | 2CDS282001R0061 | | 0.28 | 5 |
| | 8 | 591430 | S202P-D8 | 2CDS282001R0081 | | 0.28 | 5 |
| | 10 | 591447 | S202P-D10 | 2CDS282001R0101 | | 0.28 | 5 |
| | 13 | 591454 | S202P-D13 | 2CDS282001R0131 | | 0.28 | 5 |
| | 16 | 591461 | S202P-D16 | 2CDS282001R0161 | | 0.28 | 5 |
| | 20 | 591478 | S202P-D20 | 2CDS282001R0201 | | 0.28 | 5 |
| | 25 | 591485 | S202P-D25 | 2CDS282001R0251 | | 0.28 | 5 |
| | 32 | 591492 | S202P-D32 | 2CDS282001R0321 | | 0.28 | 5 |
| | 40 | 591508 | S202P-D40 | 2CDS282001R0401 | | 0.28 | 5 |
| | 50 | 591515 | S202P-D50 | 2CDS282001R0501 | | 0.28 | 5 |
| | 63 | 591522 | S202P-D63 | 2CDS282001R0631 | | 0.28 | 5 |

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# MCBs
## S 200 series P 25000 - 15000 D characteristic






S 203 P




S 204 P

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 591539 | S203P-D0.5 | 2CDS283001R0981 | | 0.42 | 1 |
| | 1 | 591546 | S203P-D1 | 2CDS283001R0011 | | 0.42 | 1 |
| | 1.6 | 591553 | S203P-D1.6 | 2CDS283001R0971 | | 0.42 | 1 |
| | 2 | 591560 | S203P-D2 | 2CDS283001R0021 | | 0.42 | 1 |
| | 3 | 591577 | S203P-D3 | 2CDS283001R0031 | | 0.42 | 1 |
| | 4 | 591584 | S203P-D4 | 2CDS283001R0041 | | 0.42 | 1 |
| | 6 | 591591 | S203P-D6 | 2CDS283001R0061 | | 0.42 | 1 |
| | 8 | 591607 | S203P-D8 | 2CDS283001R0081 | | 0.42 | 1 |
| | 10 | 591614 | S203P-D10 | 2CDS283001R0101 | | 0.42 | 1 |
| | 13 | 591621 | S203P-D13 | 2CDS283001R0131 | | 0.42 | 1 |
| | 16 | 591638 | S203P-D16 | 2CDS283001R0161 | | 0.42 | 1 |
| | 20 | 591645 | S203P-D20 | 2CDS283001R0201 | | 0.42 | 1 |
| | 25 | 591652 | S203P-D25 | 2CDS283001R0251 | | 0.42 | 1 |
| | 32 | 591669 | S203P-D32 | 2CDS283001R0321 | | 0.42 | 1 |
| | 40 | 591676 | S203P-D40 | 2CDS283001R0401 | | 0.42 | 1 |
| | 50 | 591683 | S203P-D50 | 2CDS283001R0501 | | 0.42 | 1 |
| | 63 | 591690 | S203P-D63 | 2CDS283001R0631 | | 0.42 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 591706 | S204P-D0.5 | 2CDS284001R0981 | | 0.56 | 1 |
| | 1 | 591713 | S204P-D1 | 2CDS284001R0011 | | 0.56 | 1 |
| | 1.6 | 591720 | S204P-D1.6 | 2CDS284001R0971 | | 0.56 | 1 |
| | 2 | 591737 | S204P-D2 | 2CDS284001R0021 | | 0.56 | 1 |
| | 3 | 591744 | S204P-D3 | 2CDS284001R0031 | | 0.56 | 1 |
| | 4 | 591751 | S204P-D4 | 2CDS284001R0041 | | 0.56 | 1 |
| | 6 | 591768 | S204P-D6 | 2CDS284001R0061 | | 0.56 | 1 |
| | 8 | 591775 | S204P-D8 | 2CDS284001R0081 | | 0.56 | 1 |
| | 10 | 591782 | S204P-D10 | 2CDS284001R0101 | | 0.56 | 1 |
| | 13 | 591799 | S204P-D13 | 2CDS284001R0131 | | 0.56 | 1 |
| | 16 | 591805 | S204P-D16 | 2CDS284001R0161 | | 0.56 | 1 |
| | 20 | 591812 | S204P-D20 | 2CDS284001R0201 | | 0.56 | 1 |
| | 25 | 591829 | S204P-D25 | 2CDS284001R0251 | | 0.56 | 1 |
| | 32 | 591836 | S204P-D32 | 2CDS284001R0321 | | 0.56 | 1 |
| | 40 | 591843 | S204P-D40 | 2CDS284001R0401 | | 0.56 | 1 |
| | 50 | 591850 | S204P-D50 | 2CDS284001R0501 | | 0.56 | 1 |
| | 63 | 591867 | S204P-D63 | 2CDS284001R0631 | | 0.56 | 1 |

# MCBs
## S 200 series P 25000 - 15000 D characteristic






S 201 P NA




S 203 P NA

### With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 591874 | S201P-D0.5NA | 2CDS281103R0981 | | 0.28 | 5 |
| | 1 | 591881 | S201P-D1NA | 2CDS281103R0011 | | 0.28 | 5 |
| | 1.6 | 591898 | S201P-D1.6NA | 2CDS281103R0971 | | 0.28 | 5 |
| | 2 | 591904 | S201P-D2NA | 2CDS281103R0021 | | 0.28 | 5 |
| | 3 | 591911 | S201P-D3NA | 2CDS281103R0031 | | 0.28 | 5 |
| | 4 | 591928 | S201P-D4NA | 2CDS281103R0041 | | 0.28 | 5 |
| | 6 | 591935 | S201P-D6NA | 2CDS281103R0061 | | 0.28 | 5 |
| | 8 | 591942 | S201P-D8NA | 2CDS281103R0081 | | 0.28 | 5 |
| | 10 | 591959 | S201P-D10NA | 2CDS281103R0101 | | 0.28 | 5 |
| | 13 | 591966 | S201P-D13NA | 2CDS281103R0131 | | 0.28 | 5 |
| | 16 | 591973 | S201P-D16NA | 2CDS281103R0161 | | 0.28 | 5 |
| | 20 | 591980 | S201P-D20NA | 2CDS281103R0201 | | 0.28 | 5 |
| | 25 | 591997 | S201P-D25NA | 2CDS281103R0251 | | 0.28 | 5 |
| | 32 | 592000 | S201P-D32NA | 2CDS281103R0321 | | 0.28 | 5 |
| | 40 | 592017 | S201P-D40NA | 2CDS281103R0401 | | 0.28 | 5 |
| | 50 | 592024 | S201P-D50NA | 2CDS281103R0501 | | 0.28 | 5 |
| | 63 | 592031 | S201P-D63NA | 2CDS281103R0631 | | 0.28 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 592048 | S203P-D0.5NA | 2CDS283103R0981 | | 0.56 | 1 |
| | 1 | 592055 | S203P-D1NA | 2CDS283103R0011 | | 0.56 | 1 |
| | 1.6 | 592062 | S203P-D1.6NA | 2CDS283103R0971 | | 0.56 | 1 |
| | 2 | 592079 | S203P-D2NA | 2CDS283103R0021 | | 0.56 | 1 |
| | 3 | 592086 | S203P-D3NA | 2CDS283103R0031 | | 0.56 | 1 |
| | 4 | 592093 | S203P-D4NA | 2CDS283103R0041 | | 0.56 | 1 |
| | 6 | 592109 | S203P-D6NA | 2CDS283103R0061 | | 0.56 | 1 |
| | 8 | 592116 | S203P-D8NA | 2CDS283103R0081 | | 0.56 | 1 |
| | 10 | 592123 | S203P-D10NA | 2CDS283103R0101 | | 0.56 | 1 |
| | 13 | 592130 | S203P-D13NA | 2CDS283103R0131 | | 0.56 | 1 |
| | 16 | 592147 | S203P-D16NA | 2CDS283103R0161 | | 0.56 | 1 |
| | 20 | 592154 | S203P-D20NA | 2CDS283103R0201 | | 0.56 | 1 |
| | 25 | 592161 | S203P-D25NA | 2CDS283103R0251 | | 0.56 | 1 |
| | 32 | 592178 | S203P-D32NA | 2CDS283103R0321 | | 0.56 | 1 |
| | 40 | 592185 | S203P-D40NA | 2CDS283103R0401 | | 0.56 | 1 |
| | 50 | 592192 | S203P-D50NA | 2CDS283103R0501 | | 0.56 | 1 |
| | 63 | 592208 | S203P-D63NA | 2CDS283103R0631 | | 0.56 | 1 |

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# MCBs
## S 200 series P K characteristic



S 201 P

### S 200 P-K (power) characteristic

Function: protection and control of the circuits like motors, transformers and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=25 kA for 0.5 A≤In≤25 A; Icu=15 kA for 32 A≤In≤63 A**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.2 | 592215 | S201P-K0.2 | 2CDS281001R0087 | | 0.14 | 10 |
| | 0.3 | 592222 | S201P-K0.3 | 2CDS281001R0117 | | 0.14 | 10 |
| | 0.5 | 592239 | S201P-K0.5 | 2CDS281001R0157 | | 0.14 | 10 |
| | 0.75 | 592246 | S201P-K0.75 | 2CDS281001R0187 | | 0.14 | 10 |
| | 1 | 592253 | S201P-K1 | 2CDS281001R0217 | | 0.14 | 10 |
| | 1.6 | 592260 | S201P-K1.6 | 2CDS281001R0257 | | 0.14 | 10 |
| | 2 | 592277 | S201P-K2 | 2CDS281001R0277 | | 0.14 | 10 |
| | 3 | 592284 | S201P-K3 | 2CDS281001R0317 | | 0.14 | 10 |
| | 4 | 592291 | S201P-K4 | 2CDS281001R0337 | | 0.14 | 10 |
| | 6 | 592307 | S201P-K6 | 2CDS281001R0377 | | 0.14 | 10 |
| | 8 | 592314 | S201P-K8 | 2CDS281001R0407 | | 0.14 | 10 |
| | 10 | 592321 | S201P-K10 | 2CDS281001R0427 | | 0.14 | 10 |
| | 13 | 592338 | S201P-K13 | 2CDS281001R0447 | | 0.14 | 10 |
| | 16 | 592345 | S201P-K16 | 2CDS281001R0467 | | 0.14 | 10 |
| | 20 | 592352 | S201P-K20 | 2CDS281001R0487 | | 0.14 | 10 |
| | 25 | 592369 | S201P-K25 | 2CDS281001R0517 | | 0.14 | 10 |
| | 32 | 592376 | S201P-K32 | 2CDS281001R0537 | | 0.14 | 10 |
| | 40 | 592383 | S201P-K40 | 2CDS281001R0557 | | 0.14 | 10 |
| | 50 | 592390 | S201P-K50 | 2CDS281001R0577 | | 0.14 | 10 |
| | 63 | 592406 | S201P-K63 | 2CDS281001R0607 | | 0.14 | 10 |

# MCBs
## S 200 series P K characteristic






S 202 P




S 203 P

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.2 | 592413 | S202P-K0.2 | 2CDS282001R0087 | | 0.28 | 5 |
| | 0.3 | 592420 | S202P-K0.3 | 2CDS282001R0117 | | 0.28 | 5 |
| | 0.5 | 592437 | S202P-K0.5 | 2CDS282001R0157 | | 0.28 | 5 |
| | 0.75 | 592444 | S202P-K0.75 | 2CDS282001R0187 | | 0.28 | 5 |
| | 1 | 592451 | S202P-K1 | 2CDS282001R0217 | | 0.28 | 5 |
| | 1.6 | 592468 | S202P-K1.6 | 2CDS282001R0257 | | 0.28 | 5 |
| | 2 | 592475 | S202P-K2 | 2CDS282001R0277 | | 0.28 | 5 |
| | 3 | 592482 | S202P-K3 | 2CDS282001R0317 | | 0.28 | 5 |
| | 4 | 592499 | S202P-K4 | 2CDS282001R0337 | | 0.28 | 5 |
| | 6 | 592505 | S202P-K6 | 2CDS282001R0377 | | 0.28 | 5 |
| | 8 | 592512 | S202P-K8 | 2CDS282001R0407 | | 0.28 | 5 |
| | 10 | 592529 | S202P-K10 | 2CDS282001R0427 | | 0.28 | 5 |
| | 13 | 592536 | S202P-K13 | 2CDS282001R0447 | | 0.28 | 5 |
| | 16 | 592543 | S202P-K16 | 2CDS282001R0467 | | 0.28 | 5 |
| | 20 | 592550 | S202P-K20 | 2CDS282001R0487 | | 0.28 | 5 |
| | 25 | 592567 | S202P-K25 | 2CDS282001R0517 | | 0.28 | 5 |
| | 32 | 592574 | S202P-K32 | 2CDS282001R0537 | | 0.28 | 5 |
| | 40 | 592581 | S202P-K40 | 2CDS282001R0557 | | 0.28 | 5 |
| | 50 | 592598 | S202P-K50 | 2CDS282001R0577 | | 0.28 | 5 |
| | 63 | 592604 | S202P-K63 | 2CDS282001R0607 | | 0.28 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.2 | 592611 | S203P-K0.2 | 2CDS283001R0087 | | 0.42 | 1 |
| | 0.3 | 592628 | S203P-K0.3 | 2CDS283001R0117 | | 0.42 | 1 |
| | 0.5 | 592635 | S203P-K0.5 | 2CDS283001R0157 | | 0.42 | 1 |
| | 0.75 | 592642 | S203P-K0.75 | 2CDS283001R0187 | | 0.42 | 1 |
| | 1 | 592659 | S203P-K1 | 2CDS283001R0217 | | 0.42 | 1 |
| | 1.6 | 592666 | S203P-K1.6 | 2CDS283001R0257 | | 0.42 | 1 |
| | 2 | 592673 | S203P-K2 | 2CDS283001R0277 | | 0.42 | 1 |
| | 3 | 592680 | S203P-K3 | 2CDS283001R0317 | | 0.42 | 1 |
| | 4 | 592697 | S203P-K4 | 2CDS283001R0337 | | 0.42 | 1 |
| | 6 | 592703 | S203P-K6 | 2CDS283001R0377 | | 0.42 | 1 |
| | 8 | 592710 | S203P-K8 | 2CDS283001R0407 | | 0.42 | 1 |
| | 10 | 592727 | S203P-K10 | 2CDS283001R0427 | | 0.42 | 1 |
| | 13 | 592734 | S203P-K13 | 2CDS283001R0447 | | 0.42 | 1 |
| | 16 | 592741 | S203P-K16 | 2CDS283001R0467 | | 0.42 | 1 |
| | 20 | 592758 | S203P-K20 | 2CDS283001R0487 | | 0.42 | 1 |
| | 25 | 592765 | S203P-K25 | 2CDS283001R0517 | | 0.42 | 1 |
| | 32 | 592772 | S203P-K32 | 2CDS283001R0537 | | 0.42 | 1 |
| | 40 | 592789 | S203P-K40 | 2CDS283001R0557 | | 0.42 | 1 |
| | 50 | 592796 | S203P-K50 | 2CDS283001R0577 | | 0.42 | 1 |
| | 63 | 592802 | S203P-K63 | 2CDS283001R0607 | | 0.42 | 1 |

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S 204 P




S 201 P NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.2 | 592819 | S204P-K0.2 | 2CDS284001R0087 | | 0.56 | 1 |
| | 0.3 | 592826 | S204P-K0.3 | 2CDS284001R0117 | | 0.56 | 1 |
| | 0.5 | 592833 | S204P-K0.5 | 2CDS284001R0157 | | 0.56 | 1 |
| | 0.75 | 592840 | S204P-K0.75 | 2CDS284001R0187 | | 0.56 | 1 |
| | 1 | 592857 | S204P-K1 | 2CDS284001R0217 | | 0.56 | 1 |
| | 1.6 | 592864 | S204P-K1.6 | 2CDS284001R0257 | | 0.56 | 1 |
| | 2 | 592871 | S204P-K2 | 2CDS284001R0277 | | 0.56 | 1 |
| | 3 | 592888 | S204P-K3 | 2CDS284001R0317 | | 0.56 | 1 |
| | 4 | 592895 | S204P-K4 | 2CDS284001R0337 | | 0.56 | 1 |
| | 6 | 592901 | S204P-K6 | 2CDS284001R0377 | | 0.56 | 1 |
| | 8 | 592918 | S204P-K8 | 2CDS284001R0407 | | 0.56 | 1 |
| | 10 | 592925 | S204P-K10 | 2CDS284001R0427 | | 0.56 | 1 |
| | 13 | 592932 | S204P-K13 | 2CDS284001R0447 | | 0.56 | 1 |
| | 16 | 592949 | S204P-K16 | 2CDS284001R0467 | | 0.56 | 1 |
| | 20 | 592956 | S204P-K20 | 2CDS284001R0487 | | 0.56 | 1 |
| | 25 | 592963 | S204P-K25 | 2CDS284001R0517 | | 0.56 | 1 |
| | 32 | 592970 | S204P-K32 | 2CDS284001R0537 | | 0.56 | 1 |
| | 40 | 592987 | S204P-K40 | 2CDS284001R0557 | | 0.56 | 1 |
| | 50 | 592994 | S204P-K50 | 2CDS284001R0577 | | 0.56 | 1 |
| | 63 | 593007 | S204P-K63 | 2CDS284001R0607 | | 0.56 | 1 |

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.2 | 593014 | S201P-K0.2NA | 2CDS281103R0087 | | 0.28 | 5 |
| | 0.3 | 593021 | S201P-K0.3NA | 2CDS281103R0117 | | 0.28 | 5 |
| | 0.5 | 593038 | S201P-K0.5NA | 2CDS281103R0157 | | 0.28 | 5 |
| | 0.75 | 593045 | S201P-K0.75NA | 2CDS281103R0187 | | 0.28 | 5 |
| | 1 | 593052 | S201P-K1NA | 2CDS281103R0217 | | 0.28 | 5 |
| | 1.6 | 593069 | S201P-K1.6NA | 2CDS281103R0257 | | 0.28 | 5 |
| | 2 | 593076 | S201P-K2NA | 2CDS281103R0277 | | 0.28 | 5 |
| | 3 | 593083 | S201P-K3NA | 2CDS281103R0317 | | 0.28 | 5 |
| | 4 | 593090 | S201P-K4NA | 2CDS281103R0337 | | 0.28 | 5 |
| | 6 | 593106 | S201P-K6NA | 2CDS281103R0377 | | 0.28 | 5 |
| | 8 | 593113 | S201P-K8NA | 2CDS281103R0407 | | 0.28 | 5 |
| | 10 | 593120 | S201P-K10NA | 2CDS281103R0427 | | 0.28 | 5 |
| | 13 | 593137 | S201P-K13NA | 2CDS281103R0447 | | 0.28 | 5 |
| | 16 | 593144 | S201P-K16NA | 2CDS281103R0467 | | 0.28 | 5 |
| | 20 | 593151 | S201P-K20NA | 2CDS281103R0487 | | 0.28 | 5 |
| | 25 | 593168 | S201P-K25NA | 2CDS281103R0517 | | 0.28 | 5 |
| | 32 | 593175 | S201P-K32NA | 2CDS281103R0537 | | 0.28 | 5 |
| | 40 | 593182 | S201P-K40NA | 2CDS281103R0557 | | 0.28 | 5 |
| | 50 | 593199 | S201P-K50NA | 2CDS281103R0577 | | 0.28 | 5 |
| | 63 | 593205 | S201P-K63NA | 2CDS281103R0607 | | 0.28 | 5 |

# MCBs
## S 200 series P K characteristic






S 203 P NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.2 | 593212 | S203P-K0.2NA | 2CDS283103R0087 | | 0.56 | 2 |
| | 0.3 | 593229 | S203P-K0.3NA | 2CDS283103R0117 | | 0.56 | 2 |
| | 0.5 | 593236 | S203P-K0.5NA | 2CDS283103R0157 | | 0.56 | 2 |
| | 0.75 | 593243 | S203P-K0.75NA | 2CDS283103R0187 | | 0.56 | 2 |
| | 1 | 593250 | S203P-K1NA | 2CDS283103R0217 | | 0.56 | 2 |
| | 1.6 | 593267 | S203P-K1.6NA | 2CDS283103R0257 | | 0.56 | 2 |
| | 2 | 593274 | S203P-K2NA | 2CDS283103R0277 | | 0.56 | 2 |
| | 3 | 593281 | S203P-K3NA | 2CDS283103R0317 | | 0.56 | 2 |
| | 4 | 593298 | S203P-K4NA | 2CDS283103R0337 | | 0.56 | 2 |
| | 6 | 593304 | S203P-K6NA | 2CDS283103R0377 | | 0.56 | 2 |
| | 8 | 593311 | S203P-K8NA | 2CDS283103R0407 | | 0.56 | 2 |
| | 10 | 593328 | S203P-K10NA | 2CDS283103R0427 | | 0.56 | 2 |
| | 13 | 593335 | S203P-K13NA | 2CDS283103R0447 | | 0.56 | 2 |
| | 16 | 593342 | S203P-K16NA | 2CDS283103R0467 | | 0.56 | 2 |
| | 20 | 593359 | S203P-K20NA | 2CDS283103R0487 | | 0.56 | 2 |
| | 25 | 593366 | S203P-K25NA | 2CDS283103R0517 | | 0.56 | 2 |
| | 32 | 593373 | S203P-K32NA | 2CDS283103R0537 | | 0.56 | 2 |
| | 40 | 593380 | S203P-K40NA | 2CDS283103R0557 | | 0.56 | 2 |
| | 50 | 593397 | S203P-K50NA | 2CDS283103R0577 | | 0.56 | 2 |
| | 63 | 593403 | S203P-K63NA | 2CDS283103R0607 | | 0.56 | 2 |

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# MCBs
## S 200 series P Z characteristic






S 201 P




S 202 P

### S 200 P-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=25 kA for 0.5 A≤In≤25 A; Icu=15 kA for 32 A≤In≤63 A**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.5 | 593410 | S201P-Z0.5 | 2CDS281001R0158 | | 0.14 | 10 |
| | 1 | 593427 | S201P-Z1 | 2CDS281001R0218 | | 0.14 | 10 |
| | 1.6 | 593434 | S201P-Z1.6 | 2CDS281001R0258 | | 0.14 | 10 |
| | 2 | 593441 | S201P-Z2 | 2CDS281001R0278 | | 0.14 | 10 |
| | 3 | 593458 | S201P-Z3 | 2CDS281001R0318 | | 0.14 | 10 |
| | 4 | 593465 | S201P-Z4 | 2CDS281001R0338 | | 0.14 | 10 |
| | 6 | 593472 | S201P-Z6 | 2CDS281001R0378 | | 0.14 | 10 |
| | 8 | 593489 | S201P-Z8 | 2CDS281001R0408 | | 0.14 | 10 |
| | 10 | 593496 | S201P-Z10 | 2CDS281001R0428 | | 0.14 | 10 |
| | 16 | 593502 | S201P-Z16 | 2CDS281001R0468 | | 0.14 | 10 |
| | 20 | 593519 | S201P-Z20 | 2CDS281001R0488 | | 0.14 | 10 |
| | 25 | 593526 | S201P-Z25 | 2CDS281001R0518 | | 0.14 | 10 |
| | 32 | 593533 | S201P-Z32 | 2CDS281001R0538 | | 0.14 | 10 |
| | 40 | 593540 | S201P-Z40 | 2CDS281001R0558 | | 0.14 | 10 |
| | 50 | 593557 | S201P-Z50 | 2CDS281001R0578 | | 0.14 | 10 |
| | 63 | 593564 | S201P-Z63 | 2CDS281001R0608 | | 0.14 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 593571 | S202P-Z0.5 | 2CDS282001R0158 | | 0.28 | 5 |
| | 1 | 593588 | S202P-Z1 | 2CDS282001R0218 | | 0.28 | 5 |
| | 1.6 | 593595 | S202P-Z1.6 | 2CDS282001R0258 | | 0.28 | 5 |
| | 2 | 593601 | S202P-Z2 | 2CDS282001R0278 | | 0.28 | 5 |
| | 3 | 593618 | S202P-Z3 | 2CDS282001R0318 | | 0.28 | 5 |
| | 4 | 593625 | S202P-Z4 | 2CDS282001R0338 | | 0.28 | 5 |
| | 6 | 593632 | S202P-Z6 | 2CDS282001R0378 | | 0.28 | 5 |
| | 8 | 593649 | S202P-Z8 | 2CDS282001R0408 | | 0.28 | 5 |
| | 10 | 593656 | S202P-Z10 | 2CDS282001R0428 | | 0.28 | 5 |
| | 16 | 593663 | S202P-Z16 | 2CDS282001R0468 | | 0.28 | 5 |
| | 20 | 593670 | S202P-Z20 | 2CDS282001R0488 | | 0.28 | 5 |
| | 25 | 593687 | S202P-Z25 | 2CDS282001R0518 | | 0.28 | 5 |
| | 32 | 593694 | S202P-Z32 | 2CDS282001R0538 | | 0.28 | 5 |
| | 40 | 593700 | S202P-Z40 | 2CDS282001R0558 | | 0.28 | 5 |
| | 50 | 593717 | S202P-Z50 | 2CDS282001R0578 | | 0.28 | 5 |
| | 63 | 593724 | S202P-Z63 | 2CDS282001R0608 | | 0.28 | 5 |

# MCBs
## S 200 series P Z characteristic






S 203 P




S 204 P

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | 593731 | S203P-Z0.5 | 2CDS283001R0158 | | 0.42 | 1 |
| | 1 | 593748 | S203P-Z1 | 2CDS283001R0218 | | 0.42 | 1 |
| | 1.6 | 593755 | S203P-Z1.6 | 2CDS283001R0258 | | 0.42 | 1 |
| | 2 | 593762 | S203P-Z2 | 2CDS283001R0278 | | 0.42 | 1 |
| | 3 | 593779 | S203P-Z3 | 2CDS283001R0318 | | 0.42 | 1 |
| | 4 | 593786 | S203P-Z4 | 2CDS283001R0338 | | 0.42 | 1 |
| | 6 | 593793 | S203P-Z6 | 2CDS283001R0378 | | 0.42 | 1 |
| | 8 | 593809 | S203P-Z8 | 2CDS283001R0408 | | 0.42 | 1 |
| | 10 | 593816 | S203P-Z10 | 2CDS283001R0428 | | 0.42 | 1 |
| | 16 | 593823 | S203P-Z16 | 2CDS283001R0468 | | 0.42 | 1 |
| | 20 | 593830 | S203P-Z20 | 2CDS283001R0488 | | 0.42 | 1 |
| | 25 | 593847 | S203P-Z25 | 2CDS283001R0518 | | 0.42 | 1 |
| | 32 | 593854 | S203P-Z32 | 2CDS283001R0538 | | 0.42 | 1 |
| | 40 | 593861 | S203P-Z40 | 2CDS283001R0558 | | 0.42 | 1 |
| | 50 | 593878 | S203P-Z50 | 2CDS283001R0578 | | 0.42 | 1 |
| | 63 | 593885 | S203P-Z63 | 2CDS283001R0608 | | 0.42 | 1 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | 593892 | S204P-Z0.5 | 2CDS284001R0158 | | 0.56 | 1 |
| | 1 | 593908 | S204P-Z1 | 2CDS284001R0218 | | 0.56 | 1 |
| | 1.6 | 593915 | S204P-Z1.6 | 2CDS284001R0258 | | 0.56 | 1 |
| | 2 | 593922 | S204P-Z2 | 2CDS284001R0278 | | 0.56 | 1 |
| | 3 | 593939 | S204P-Z3 | 2CDS284001R0318 | | 0.56 | 1 |
| | 4 | 593946 | S204P-Z4 | 2CDS284001R0338 | | 0.56 | 1 |
| | 6 | 593953 | S204P-Z6 | 2CDS284001R0378 | | 0.56 | 1 |
| | 8 | 593960 | S204P-Z8 | 2CDS284001R0408 | | 0.56 | 1 |
| | 10 | 593977 | S204P-Z10 | 2CDS284001R0428 | | 0.56 | 1 |
| | 16 | 593984 | S204P-Z16 | 2CDS284001R0468 | | 0.56 | 1 |
| | 20 | 593991 | S204P-Z20 | 2CDS284001R0488 | | 0.56 | 1 |
| | 25 | 594004 | S204P-Z25 | 2CDS284001R0518 | | 0.56 | 1 |
| | 32 | 594011 | S204P-Z32 | 2CDS284001R0538 | | 0.56 | 1 |
| | 40 | 594028 | S204P-Z40 | 2CDS284001R0558 | | 0.56 | 1 |
| | 50 | 594035 | S204P-Z50 | 2CDS284001R0578 | | 0.56 | 1 |
| | 63 | 594042 | S204P-Z63 | 2CDS284001R0608 | | 0.56 | 1 |

**Where to find more:**
Coordination tables for S 200 MCBs: Chapter 2 of
Solutions for electrical distribution in buildings - technical details

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S 201 P NA




S 203 P NA

## With disconnecting neutral NA

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+NA | 0.5 | 594059 | S201P-Z0.5NA | 2CDS281103R0158 | | 0.28 | 5 |
| | 1 | 594066 | S201P-Z1NA | 2CDS281103R0218 | | 0.28 | 5 |
| | 1.6 | 594073 | S201P-Z1.6NA | 2CDS281103R0258 | | 0.28 | 5 |
| | 2 | 594080 | S201P-Z2NA | 2CDS281103R0278 | | 0.28 | 5 |
| | 3 | 594097 | S201P-Z3NA | 2CDS281103R0318 | | 0.28 | 5 |
| | 4 | 594103 | S201P-Z4NA | 2CDS281103R0338 | | 0.28 | 5 |
| | 6 | 594110 | S201P-Z6NA | 2CDS281103R0378 | | 0.28 | 5 |
| | 8 | 594127 | S201P-Z8NA | 2CDS281103R0408 | | 0.28 | 5 |
| | 10 | 594134 | S201P-Z10NA | 2CDS281103R0428 | | 0.28 | 5 |
| | 16 | 594141 | S201P-Z16NA | 2CDS281103R0468 | | 0.28 | 5 |
| | 20 | 594158 | S201P-Z20NA | 2CDS281103R0488 | | 0.28 | 5 |
| | 25 | 594165 | S201P-Z25NA | 2CDS281103R0518 | | 0.28 | 5 |
| | 32 | 594172 | S201P-Z32NA | 2CDS281103R0538 | | 0.28 | 5 |
| | 40 | 594189 | S201P-Z40NA | 2CDS281103R0558 | | 0.28 | 5 |
| | 50 | 594196 | S201P-Z50NA | 2CDS281103R0578 | | 0.28 | 5 |
| | 63 | 594202 | S201P-Z63NA | 2CDS281103R0608 | | 0.28 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3+NA | 0.5 | 594219 | S203P-Z0.5NA | 2CDS283103R0158 | | 0.56 | 1 |
| | 1 | 594226 | S203P-Z1NA | 2CDS283103R0218 | | 0.56 | 1 |
| | 1.6 | 594233 | S203P-Z1.6NA | 2CDS283103R0258 | | 0.56 | 1 |
| | 2 | 594240 | S203P-Z2NA | 2CDS283103R0278 | | 0.56 | 1 |
| | 3 | 594257 | S203P-Z3NA | 2CDS283103R0318 | | 0.56 | 1 |
| | 4 | 594264 | S203P-Z4NA | 2CDS283103R0338 | | 0.56 | 1 |
| | 6 | 594271 | S203P-Z6NA | 2CDS283103R0378 | | 0.56 | 1 |
| | 8 | 594288 | S203P-Z8NA | 2CDS283103R0408 | | 0.56 | 1 |
| | 10 | 594295 | S203P-Z10NA | 2CDS283103R0428 | | 0.56 | 1 |
| | 16 | 594301 | S203P-Z16NA | 2CDS283103R0468 | | 0.56 | 1 |
| | 20 | 594318 | S203P-Z20NA | 2CDS283103R0488 | | 0.56 | 1 |
| | 25 | 594325 | S203P-Z25NA | 2CDS283103R0518 | | 0.56 | 1 |
| | 32 | 594332 | S203P-Z32NA | 2CDS283103R0538 | | 0.56 | 1 |
| | 40 | 594349 | S203P-Z40NA | 2CDS283103R0558 | | 0.56 | 1 |
| | 50 | 594356 | S203P-Z50NA | 2CDS283103R0578 | | 0.56 | 1 |
| | 63 | 594363 | S203P-Z63NA | 2CDS283103R0608 | | 0.56 | 1 |

# MCBs
## S 200 series PR - UL range K characteristic






S 201 PR

### S 200 PR-K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The integrated captive connecting screws smplify the connection of electric lines, provides extra protection and saves time.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, UL1077, CSA 22.2 No. 235**

**Rated interrupting capacity 10 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.2 | 9846868 | S201PR-K0.2 | 2CDS271427R0087 | | 0.140 | 10 |
| | 0.3 | 9846875 | S201PR-K0.3 | 2CDS271427R0117 | | 0.140 | 10 |
| | 0.5 | 9846882 | S201PR-K0.5 | 2CDS271427R0157 | | 0.140 | 10 |
| | 0.75 | 9846899 | S201PR-K0.75 | 2CDS271427R0187 | | 0.140 | 10 |
| | 1 | 9846905 | S201PR-K1 | 2CDS271427R0217 | | 0.140 | 10 |
| | 1.6 | 9846912 | S201PR-K1.6 | 2CDS271427R0257 | | 0.140 | 10 |
| | 2 | 9846929 | S201PR-K2 | 2CDS271427R0277 | | 0.140 | 10 |
| | 3 | 9846936 | S201PR-K3 | 2CDS271427R0317 | | 0.140 | 10 |
| | 4 | 9846943 | S201PR-K4 | 2CDS271427R0337 | | 0.140 | 10 |
| | 5 | 9846950 | S201PR-K5 | 2CDS271427R0357 | | 0.140 | 10 |
| | 6 | 9846967 | S201PR-K6 | 2CDS271427R0377 | | 0.140 | 10 |
| | 8 | 9846974 | S201PR-K8 | 2CDS271427R0407 | | 0.140 | 10 |
| | 10 | 9846981 | S201PR-K10 | 2CDS271427R0427 | | 0.140 | 10 |
| | 13 | 9846998 | S201PR-K13 | 2CDS271427R0447 | | 0.140 | 10 |
| | 15 | 9847001 | S201PR-K15 | 2CDS271427R0457 | | 0.140 | 10 |
| | 16 | 9847018 | S201PR-K16 | 2CDS271427R0467 | | 0.140 | 10 |
| | 20 | 9847025 | S201PR-K20 | 2CDS271427R0487 | | 0.140 | 10 |
| | 25 | 9847032 | S201PR-K25 | 2CDS271427R0517 | | 0.140 | 10 |
| | 30 | 9847049 | S201PR-K30 | 2CDS271427R0527 | | 0.140 | 10 |
| | 32 | 9847056 | S201PR-K32 | 2CDS271427R0537 | | 0.140 | 10 |
| | 35 | 9847063 | S201PR-K35 | 2CDS271427R0547 | | 0.140 | 10 |
| | 40 | 9847070 | S201PR-K40 | 2CDS271427R0557 | | 0.140 | 10 |
| | 50 | 9847087 | S201PR-K50 | 2CDS271427R0577 | | 0.140 | 10 |
| | 60 | 9847094 | S201PR-K60 | 2CDS271427R0587 | | 0.140 | 10 |
| | 63 | 9847100 | S201PR-K63 | 2CDS271427R0607 | | 0.140 | 10 |

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S 202 PR

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.2 | 9847117 | S202PR-K0.2 | 2CDS272427R0087 | | 0.280 | 5 |
| | 0.3 | 9847124 | S202PR-K0.3 | 2CDS272427R0117 | | 0.280 | 5 |
| | 0.5 | 9847131 | S202PR-K0.5 | 2CDS272427R0157 | | 0.280 | 5 |
| | 0.75 | 9847148 | S202PR-K0.75 | 2CDS272427R0187 | | 0.280 | 5 |
| | 1 | 9847155 | S202PR-K1 | 2CDS272427R0217 | | 0.280 | 5 |
| | 1.6 | 9847162 | S202PR-K1.6 | 2CDS272427R0257 | | 0.280 | 5 |
| | 2 | 9847179 | S202PR-K2 | 2CDS272427R0277 | | 0.280 | 5 |
| | 3 | 9847186 | S202PR-K3 | 2CDS272427R0317 | | 0.280 | 5 |
| | 4 | 9847193 | S202PR-K4 | 2CDS272427R0337 | | 0.280 | 5 |
| | 5 | 9847209 | S202PR-K5 | 2CDS272427R0357 | | 0.280 | 5 |
| | 6 | 9847216 | S202PR-K6 | 2CDS272427R0377 | | 0.280 | 5 |
| | 8 | 9847223 | S202PR-K8 | 2CDS272427R0407 | | 0.280 | 5 |
| | 10 | 9847230 | S202PR-K10 | 2CDS272427R0427 | | 0.280 | 5 |
| | 13 | 9847247 | S202PR-K13 | 2CDS272427R0447 | | 0.280 | 5 |
| | 15 | 9847254 | S202PR-K15 | 2CDS272427R0457 | | 0.280 | 5 |
| | 16 | 9847261 | S202PR-K16 | 2CDS272427R0467 | | 0.280 | 5 |
| | 20 | 9847278 | S202PR-K20 | 2CDS272427R0487 | | 0.280 | 5 |
| | 25 | 9847285 | S202PR-K25 | 2CDS272427R0517 | | 0.280 | 5 |
| | 30 | 9847292 | S202PR-K30 | 2CDS272427R0527 | | 0.280 | 5 |
| | 32 | 9847308 | S202PR-K32 | 2CDS272427R0537 | | 0.280 | 5 |
| | 35 | 9847315 | S202PR-K35 | 2CDS272427R0547 | | 0.280 | 5 |
| | 40 | 9847322 | S202PR-K40 | 2CDS272427R0557 | | 0.280 | 5 |
| | 50 | 9847339 | S202PR-K50 | 2CDS272427R0577 | | 0.280 | 5 |
| | 60 | 9847346 | S202PR-K60 | 2CDS272427R0587 | | 0.280 | 5 |
| | 63 | 9847353 | S202PR-K63 | 2CDS272427R0607 | | 0.280 | 5 |

# MCBs
## S 200 series PR - UL range K characteristic






S 203 PR




S 204 PR

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.2 | 9847360 | S203PR-K0.2 | 2CDS273427R0087 | | 0.420 | 3 |
| | 0.3 | 9847377 | S203PR-K0.3 | 2CDS273427R0117 | | 0.420 | 3 |
| | 0.5 | 9847384 | S203PR-K0.5 | 2CDS273427R0157 | | 0.420 | 3 |
| | 0.75 | 9847391 | S203PR-K0.75 | 2CDS273427R0187 | | 0.420 | 3 |
| | 1 | 9847407 | S203PR-K1 | 2CDS273427R0217 | | 0.420 | 3 |
| | 1.6 | 9847414 | S203PR-K1.6 | 2CDS273427R0257 | | 0.420 | 3 |
| | 2 | 9847421 | S203PR-K2 | 2CDS273427R0277 | | 0.420 | 3 |
| | 3 | 9847438 | S203PR-K3 | 2CDS273427R0317 | | 0.420 | 3 |
| | 4 | 9847445 | S203PR-K4 | 2CDS273427R0337 | | 0.420 | 3 |
| | 5 | 9847452 | S203PR-K5 | 2CDS273427R0357 | | 0.420 | 3 |
| | 6 | 9847469 | S203PR-K6 | 2CDS273427R0377 | | 0.420 | 3 |
| | 8 | 9847476 | S203PR-K8 | 2CDS273427R0407 | | 0.420 | 3 |
| | 10 | 9847483 | S203PR-K10 | 2CDS273427R0427 | | 0.420 | 3 |
| | 13 | 9847490 | S203PR-K13 | 2CDS273427R0447 | | 0.420 | 3 |
| | 15 | 9847506 | S203PR-K15 | 2CDS273427R0457 | | 0.420 | 3 |
| | 16 | 9847513 | S203PR-K16 | 2CDS273427R0467 | | 0.420 | 3 |
| | 20 | 9847520 | S203PR-K20 | 2CDS273427R0487 | | 0.420 | 3 |
| | 25 | 9847537 | S203PR-K25 | 2CDS273427R0517 | | 0.420 | 3 |
| | 30 | 9847544 | S203PR-K30 | 2CDS273427R0527 | | 0.420 | 3 |
| | 32 | 9847551 | S203PR-K32 | 2CDS273427R0537 | | 0.420 | 3 |
| | 35 | 9847568 | S203PR-K35 | 2CDS273427R0547 | | 0.420 | 3 |
| | 40 | 9847575 | S203PR-K40 | 2CDS273427R0557 | | 0.420 | 3 |
| | 50 | 9847582 | S203PR-K50 | 2CDS273427R0577 | | 0.420 | 3 |
| | 60 | 9847599 | S203PR-K60 | 2CDS273427R0587 | | 0.420 | 3 |
| | 63 | 9847605 | S203PR-K63 | 2CDS273427R0607 | | 0.420 | 3 |
| 4 | 0.2 | 9847612 | S204PR-K0.2 | 2CDS274427R0087 | | 0.560 | 2 |
| | 0.3 | 9847629 | S204PR-K0.3 | 2CDS274427R0117 | | 0.560 | 2 |
| | 0.5 | 9847636 | S204PR-K0.5 | 2CDS274427R0157 | | 0.560 | 2 |
| | 0.75 | 9847643 | S204PR-K0.75 | 2CDS274427R0187 | | 0.560 | 2 |
| | 1 | 9847650 | S204PR-K1 | 2CDS274427R0217 | | 0.560 | 2 |
| | 1.6 | 9847667 | S204PR-K1.6 | 2CDS274427R0257 | | 0.560 | 2 |
| | 2 | 9847674 | S204PR-K2 | 2CDS274427R0277 | | 0.560 | 2 |
| | 3 | 9847681 | S204PR-K3 | 2CDS274427R0317 | | 0.560 | 2 |
| | 4 | 9847698 | S204PR-K4 | 2CDS274427R0337 | | 0.560 | 2 |
| | 5 | 9847704 | S204PR-K5 | 2CDS274427R0357 | | 0.560 | 2 |
| | 6 | 9847711 | S204PR-K6 | 2CDS274427R0377 | | 0.560 | 2 |
| | 8 | 9847728 | S204PR-K8 | 2CDS274427R0407 | | 0.560 | 2 |
| | 10 | 9847735 | S204PR-K10 | 2CDS274427R0427 | | 0.560 | 2 |
| | 13 | 9847742 | S204PR-K13 | 2CDS274427R0447 | | 0.560 | 2 |
| | 15 | 9847759 | S204PR-K15 | 2CDS274427R0457 | | 0.560 | 2 |
| | 16 | 9847766 | S204PR-K16 | 2CDS274427R0467 | | 0.560 | 2 |
| | 20 | 9847773 | S204PR-K20 | 2CDS274427R0487 | | 0.560 | 2 |
| | 25 | 9847780 | S204PR-K25 | 2CDS274427R0517 | | 0.560 | 2 |
| | 30 | 9847797 | S204PR-K30 | 2CDS274427R0527 | | 0.560 | 2 |
| | 32 | 9847803 | S204PR-K32 | 2CDS274427R0537 | | 0.560 | 2 |
| | 35 | 9847810 | S204PR-K35 | 2CDS274427R0547 | | 0.560 | 2 |
| | 40 | 9847827 | S204PR-K40 | 2CDS274427R0557 | | 0.560 | 2 |
| | 50 | 9847834 | S204PR-K50 | 2CDS274427R0577 | | 0.560 | 2 |
| | 60 | 9847841 | S204PR-K60 | 2CDS274427R0587 | | 0.560 | 2 |
| | 63 | 9847858 | S204PR-K63 | 2CDS274427R0607 | | 0.560 | 2 |

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# MCBs
## S 200 series S - screwless range 6000 B and C characteristics




S 201 S




S 203 S

### S 200 S-B and S 200 S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898-1**

**Icn=6 kA**

### S 200 S-B characteristic

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 709385 | S201S-B6 | 2CDS251002R0065 | | 0.100 | 10 |
| | 10 | 709415 | S201S-B10 | 2CDS251002R0105 | | 0.100 | 10 |
| | 13 | 709439 | S201S-B13 | 2CDS251002R0135 | | 0.100 | 10 |
| | 16 | 709453 | S201S-B16 | 2CDS251002R0165 | | 0.100 | 10 |
| | 20 | 709477 | S201S-B20 | 2CDS251002R0205 | | 0.100 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 709484 | S203S-B6 | 2CDS253002R0065 | | 0.300 | 1 |
| | 10 | 709514 | S203S-B10 | 2CDS253002R0105 | | 0.300 | 1 |
| | 13 | 709538 | S203S-B13 | 2CDS253002R0135 | | 0.300 | 1 |
| | 16 | 709552 | S203S-B16 | 2CDS253002R0165 | | 0.300 | 1 |
| | 20 | 709576 | S203S-B20 | 2CDS253002R0205 | | 0.300 | 1 |

### S 200 S-C characteristic

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 756891 | S201S-C6 | 2CDS251002R0064 | | 100 | 10 |
| | 8 | 709392 | S201S-C8 | 2CDS251002R0084 | | 100 | 10 |
| | 10 | 709408 | S201S-C10 | 2CDS251002R0104 | | 100 | 10 |
| | 13 | 709422 | S201S-C13 | 2CDS251002R0134 | | 100 | 10 |
| | 16 | 709446 | S201S-C16 | 2CDS251002R0164 | | 100 | 10 |
| | 20 | 709460 | S201S-C20 | 2CDS251002R0204 | | 100 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 709378 | S203S-C6 | 2CDS253002R0064 | | 300 | 1 |
| | 8 | 709491 | S203S-C8 | 2CDS253002R0084 | | 300 | 1 |
| | 10 | 709507 | S203S-C10 | 2CDS253002R0104 | | 300 | 1 |
| | 13 | 709521 | S203S-C13 | 2CDS253002R0134 | | 300 | 1 |
| | 16 | 709545 | S203S-C16 | 2CDS253002R0164 | | 300 | 1 |
| | 20 | 709569 | S203S-C20 | 2CDS253002R0204 | | 300 | 1 |

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# MCBs
## SU 200 M series technical characteristic



| | | |
|---|---|---|
| **General Data** | | |
| Standards | | UL 489, CSA 22.2 No. 5, IEC/EN 60947-2 |
| Poles | | 1P, 2P, 3P, 4P |
| Tripping characteristics | | C, K, Z |
| Rated current In | | 0.2 - 63 A |
| Rated frequency f | | 50 / 60 Hz, DC (0 Hz) |
| Rated insulation voltage Ui acc. to IEC/EN 60664-1 | | 250 V AC (phase to ground), 440 V AC (phase to phase) |
| Overvoltage category | | III |
| Pollution degree | | 3 |
| **IEC/EN 60947-2** | | |
| Rated operational voltage Ue | | 1P: 230 V AC; 2P, 3P, 4P: 400 V AC |
| Max. power frequency recovery voltage Umax AC | | 1P: 253 V AC; 2P, 3P, 4P: 440 V AC |
| Min. operating voltage | | 12 V AC, 12 V DC |
| Rated ultimate short-circuit breaking capacity Icu | | 15 kA |
| Rated service short-circuit breaking capacity Ics | | ≤ 40 A: 11.25 kA |
| | | > 40 A: 7.5 kA |
| Rated impulse withstand voltage Uimp (1.2/50µs) | | 4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m) |
| Dielectric test voltage | | 2 kV (50 / 60Hz, 1 min.) |
| Reference temperature for tripping characteristics | | 30 °C |
| Electrical endurance | | In < 30 A: 20,000 ops (AC), In ≥ 30 A: 10,000 ops. (AC); |
| | | 1 cycle (2 s - ON, 13 s - OFF, In ≤ 32 A), 1 cycle (2 s - ON, 28 s - OFF, In > 32 A) |
| **UL / CSA** | | |
| Rated voltage | AC | 1P: 277 V AC up to 40 A for C, Z char., |
| | AC | 277 V AC up to 35 A for K char., 240 V AC |
| | AC | 2P, 3P, 4P: 480 Y / 277 V AC up to 40 A for C, Z char., |
| | AC | 480 Y / 277 V AC up to 35 A for K char., 240 V AC |
| | DC | 1P: 48 V DC; 2P: 96 V DC (2p in series) |
| Rated interrupting capacity acc. to UL 1077 | | – |
| Short-circuit current rating acc. to UL 489 | | 10 kA |
| Application | | – |
| Reference temperature for tripping characteristics | | 40 °C |
| Electrical endurance | | 6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1 s - ON, 9 s - OFF) |
| **Mechanical data** | | |
| Housing | | Insulation group II, RAL 7035 |
| Toggle | | Insulation group II, black, sealable |
| Contact position indication | | Real CPI (green OFF / red ON) |
| Protection degree acc. to DIN EN 60529 | | IP20*, IP40 in enclosure with cover |
| Mechanical endurance | | 20,000 ops. |
| Shock resistance acc. to IEC/EN 60068-2-27 | | 25 g - 2 shocks - 13 ms |
| Vibration resistance acc. to IEC/EN 60068-2-6 | | 5g - 20 cycles at 5…150…5 Hz with load 0.8 In |
| Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30 | | 28 cycles with 55°C/90-96% and 25°C/95-100% |
| Ambient temperature | | -25 … +55°C |
| Storage temperature | | -40 ... +70 °C |

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Accessories for MCBs p.4/20 - 4/40
Busbar systems p.4/25

| | |
|---|---|
| **Installation** | |
| Terminal | Failsafe bi-directional cylinder-lift terminal |
| Cross-section of conductors (top/bottom) | solid, stranded: 35 mm² / 35 mm² |
| | flexible: 25 mm² / 25 mm² |
| | 18 – 4 AWG |
| Cross-section of busbars (top/bottom) | 10 mm² / 10 mm² |
| | 18 – 8 AWG |
| Torque | 2.8 Nm |
| | AWG 18-16: 13.3 in-lbs. |
| | AWG 14-10: 17.7 in-lbs. |
| | AWG 8-4: 39.8 in-lbs. |
| Screwdriver | No. 2 Pozidrive |
| Mounting | On DIN rail 35 mm acc. to EN 60715 by fast clip |
| Mounting position | any |
| Supply | optional |
| **Dimensions and weight** | |
| Mounting dimensions acc. to DIN 43880 | Mounting dimension 3 |
| Pole dimensions (H x D x W) | 111 x 69 x 17.5 mm |
| Pole weight approx. | 125 g |
| **Combination with auxiliary elements** | |
| Auxiliary contact | Yes |
| Signal contact | Yes |
| Shunt trip | Yes |

* Also fulfilling the requirements acc. to the protection degree IPXXB

# MCBs
# SU 200 M series C characteristic

## SU 200 M-C characteristic

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | | SU201M-C0,5 | 2CDS271337R0984 | | 0.125 | 10 |
| | 1 | | SU201M-C1 | 2CDS271337R0014 | | 0.125 | 10 |
| | 1.6 | | SU201M-C1,6 | 2CDS271337R0974 | | 0.125 | 10 |
| | 2 | | SU201M-C2 | 2CDS271337R0024 | | 0.125 | 10 |
| | 3 | | SU201M-C3 | 2CDS271337R0034 | | 0.125 | 10 |
| | 4 | | SU201M-C4 | 2CDS271337R0044 | | 0.125 | 10 |
| | 5 | | SU201M-C5 | 2CDS271337R0054 | | 0.125 | 10 |
| | 6 | | SU201M-C6 | 2CDS271337R0064 | | 0.125 | 10 |
| | 8 | | SU201M-C8 | 2CDS271337R0084 | | 0.125 | 10 |
| | 10 | | SU201M-C10 | 2CDS271337R0104 | | 0.125 | 10 |
| | 13 | | SU201M-C13 | 2CDS271337R0134 | | 0.125 | 10 |
| | 15 | | SU201M-C15 | 2CDS271337R0154 | | 0.125 | 10 |
| | 16 | | SU201M-C16 | 2CDS271337R0164 | | 0.125 | 10 |
| | 20 | | SU201M-C20 | 2CDS271337R0204 | | 0.125 | 10 |
| | 25 | | SU201M-C25 | 2CDS271337R0254 | | 0.125 | 10 |
| | 30 | | SU201M-C30 | 2CDS271337R0304 | | 0.125 | 10 |
| | 32 | | SU201M-C32 | 2CDS271337R0324 | | 0.125 | 10 |
| | 35 | | SU201M-C35 | 2CDS271337R0354 | | 0.125 | 10 |
| | 40 | | SU201M-C40 | 2CDS271337R0404 | | 0.125 | 10 |
| | 50 | | SU201M-C50 | 2CDS271337R0504 | | 0.125 | 10 |
| | 60 | | SU201M-C60 | 2CDS271337R0604 | | 0.125 | 10 |
| | 63 | | SU201M-C63 | 2CDS271337R0634 | | 0.125 | 10 |

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Accessories for MCBs p.4/20 - 4/40
Busbar systems p.4/25

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | | SU202M-C0,5 | 2CDS272337R0984 | | 0.250 | 5 |
| | 1 | | SU202M-C1 | 2CDS272337R0014 | | 0.250 | 5 |
| | 1.6 | | SU202M-C1,6 | 2CDS272337R0974 | | 0.250 | 5 |
| | 2 | | SU202M-C2 | 2CDS272337R0024 | | 0.250 | 5 |
| | 3 | | SU202M-C3 | 2CDS272337R0034 | | 0.250 | 5 |
| | 4 | | SU202M-C4 | 2CDS272337R0044 | | 0.250 | 5 |
| | 5 | | SU202M-C5 | 2CDS272337R0054 | | 0.250 | 5 |
| | 6 | | SU202M-C6 | 2CDS272337R0064 | | 0.250 | 5 |
| | 8 | | SU202M-C8 | 2CDS272337R0084 | | 0.250 | 5 |
| | 10 | | SU202M-C10 | 2CDS272337R0104 | | 0.250 | 5 |
| | 13 | | SU202M-C13 | 2CDS272337R0134 | | 0.250 | 5 |
| | 15 | | SU202M-C15 | 2CDS272337R0154 | | 0.250 | 5 |
| | 16 | | SU202M-C16 | 2CDS272337R0164 | | 0.250 | 5 |
| | 20 | | SU202M-C20 | 2CDS272337R0204 | | 0.250 | 5 |
| | 25 | | SU202M-C25 | 2CDS272337R0254 | | 0.250 | 5 |
| | 30 | | SU202M-C30 | 2CDS272337R0304 | | 0.250 | 5 |
| | 32 | | SU202M-C32 | 2CDS272337R0324 | | 0.250 | 5 |
| | 35 | | SU202M-C35 | 2CDS272337R0354 | | 0.250 | 5 |
| | 40 | | SU202M-C40 | 2CDS272337R0404 | | 0.250 | 5 |
| | 50 | | SU202M-C50 | 2CDS272337R0504 | | 0.250 | 5 |
| | 60 | | SU202M-C60 | 2CDS272337R0604 | | 0.250 | 5 |
| | 63 | | SU202M-C63 | 2CDS272337R0634 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | | SU203M-C0,5 | 2CDS273337R0984 | | 0.375 | 3 |
| | 1 | | SU203M-C1 | 2CDS273337R0014 | | 0.375 | 3 |
| | 1.6 | | SU203M-C1,6 | 2CDS273337R0974 | | 0.375 | 3 |
| | 2 | | SU203M-C2 | 2CDS273337R0024 | | 0.375 | 3 |
| | 3 | | SU203M-C3 | 2CDS273337R0034 | | 0.375 | 3 |
| | 4 | | SU203M-C4 | 2CDS273337R0044 | | 0.375 | 3 |
| | 5 | | SU203M-C5 | 2CDS273337R0054 | | 0.375 | 3 |
| | 6 | | SU203M-C6 | 2CDS273337R0064 | | 0.375 | 3 |
| | 8 | | SU203M-C8 | 2CDS273337R0084 | | 0.375 | 3 |
| | 10 | | SU203M-C10 | 2CDS273337R0104 | | 0.375 | 3 |
| | 13 | | SU203M-C13 | 2CDS273337R0134 | | 0.375 | 3 |
| | 15 | | SU203M-C15 | 2CDS273337R0154 | | 0.375 | 3 |
| | 16 | | SU203M-C16 | 2CDS273337R0164 | | 0.375 | 3 |
| | 20 | | SU203M-C20 | 2CDS273337R0204 | | 0.375 | 3 |
| | 25 | | SU203M-C25 | 2CDS273337R0254 | | 0.375 | 3 |
| | 30 | | SU203M-C30 | 2CDS273337R0304 | | 0.375 | 3 |
| | 32 | | SU203M-C32 | 2CDS273337R0324 | | 0.375 | 3 |
| | 35 | | SU203M-C35 | 2CDS273337R0354 | | 0.375 | 3 |
| | 40 | | SU203M-C40 | 2CDS273337R0404 | | 0.375 | 3 |
| | 50 | | SU203M-C50 | 2CDS273337R0504 | | 0.375 | 3 |
| | 60 | | SU203M-C60 | 2CDS273337R0604 | | 0.375 | 3 |
| | 63 | | SU203M-C63 | 2CDS273337R0634 | | 0.375 | 3 |

# MCBs
## SU 200 M series C characteristic



| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.5 | | SU204M-C0,5 | 2CDS274337R0984 | | 0.500 | 2 |
| | 1 | | SU204M-C1 | 2CDS274337R0014 | | 0.500 | 2 |
| | 1.6 | | SU204M-C1,6 | 2CDS274337R0974 | | 0.500 | 2 |
| | 2 | | SU204M-C2 | 2CDS274337R0024 | | 0.500 | 2 |
| | 3 | | SU204M-C3 | 2CDS274337R0034 | | 0.500 | 2 |
| | 4 | | SU204M-C4 | 2CDS274337R0044 | | 0.500 | 2 |
| | 5 | | SU204M-C5 | 2CDS274337R0054 | | 0.500 | 2 |
| | 6 | | SU204M-C6 | 2CDS274337R0064 | | 0.500 | 2 |
| | 8 | | SU204M-C8 | 2CDS274337R0084 | | 0.500 | 2 |
| | 10 | | SU204M-C10 | 2CDS274337R0104 | | 0.500 | 2 |
| | 13 | | SU204M-C13 | 2CDS274337R0134 | | 0.500 | 2 |
| | 15 | | SU204M-C15 | 2CDS274337R0154 | | 0.500 | 2 |
| | 16 | | SU204M-C16 | 2CDS274337R0164 | | 0.500 | 2 |
| | 20 | | SU204M-C20 | 2CDS274337R0204 | | 0.500 | 2 |
| | 25 | | SU204M-C25 | 2CDS274337R0254 | | 0.500 | 2 |
| | 30 | | SU204M-C30 | 2CDS274337R0304 | | 0.500 | 2 |
| | 32 | | SU204M-C32 | 2CDS274337R0324 | | 0.500 | 2 |
| | 35 | | SU204M-C35 | 2CDS274337R0354 | | 0.500 | 2 |
| | 40 | | SU204M-C40 | 2CDS274337R0404 | | 0.500 | 2 |
| | 50 | | SU204M-C50 | 2CDS274337R0504 | | 0.500 | 2 |
| | 60 | | SU204M-C60 | 2CDS274337R0604 | | 0.500 | 2 |
| | 63 | | SU204M-C63 | 2CDS274337R0634 | | 0.500 | 2 |

# MCBs
# SU 200 M series K characteristic



## SU 200 M-K characteristic

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.2 | | SU201M-K0,2 | 2CDS271337R0087 | | 0.125 | 10 |
| | 0.3 | | SU201M-K0,3 | 2CDS271337R0117 | | 0.125 | 10 |
| | 0.5 | | SU201M-K0,5 | 2CDS271337R0157 | | 0.125 | 10 |
| | 0.75 | | SU201M-K0,75 | 2CDS271337R0187 | | 0.125 | 10 |
| | 1 | | SU201M-K1 | 2CDS271337R0217 | | 0.125 | 10 |
| | 1.6 | | SU201M-K1,6 | 2CDS271337R0257 | | 0.125 | 10 |
| | 2 | | SU201M-K2 | 2CDS271337R0277 | | 0.125 | 10 |
| | 3 | | SU201M-K3 | 2CDS271337R0317 | | 0.125 | 10 |
| | 4 | | SU201M-K4 | 2CDS271337R0337 | | 0.125 | 10 |
| | 5 | | SU201M-K5 | 2CDS271337R0357 | | 0.125 | 10 |
| | 6 | | SU201M-K6 | 2CDS271337R0377 | | 0.125 | 10 |
| | 8 | | SU201M-K8 | 2CDS271337R0407 | | 0.125 | 10 |
| | 10 | | SU201M-K10 | 2CDS271337R0427 | | 0.125 | 10 |
| | 13 | | SU201M-K13 | 2CDS271337R0447 | | 0.125 | 10 |
| | 15 | | SU201M-K15 | 2CDS271337R0457 | | 0.125 | 10 |
| | 16 | | SU201M-K16 | 2CDS271337R0467 | | 0.125 | 10 |
| | 20 | | SU201M-K20 | 2CDS271337R0487 | | 0.125 | 10 |
| | 25 | | SU201M-K25 | 2CDS271337R0517 | | 0.125 | 10 |
| | 30 | | SU201M-K30 | 2CDS271337R0527 | | 0.125 | 10 |
| | 32 | | SU201M-K32 | 2CDS271337R0537 | | 0.125 | 10 |
| | 35 | | SU201M-K35 | 2CDS271337R0547 | | 0.125 | 10 |
| | 40 | | SU201M-K40 | 2CDS271337R0557 | | 0.125 | 10 |
| | 50 | | SU201M-K50 | 2CDS271337R0577 | | 0.125 | 10 |
| | 60 | | SU201M-K60 | 2CDS271337R0587 | | 0.125 | 10 |
| | 63 | | SU201M-K63 | 2CDS271337R0607 | | 0.125 | 10 |

# MCBs
## SU 200 M series K characteristic



| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.2 | | SU202M-K0,2 | 2CDS272337R0087 | | 0.250 | 5 |
| | 0.3 | | SU202M-K0,3 | 2CDS272337R0117 | | 0.250 | 5 |
| | 0.5 | | SU202M-K0,5 | 2CDS272337R0157 | | 0.250 | 5 |
| | 0.75 | | SU202M-K0,75 | 2CDS272337R0187 | | 0.250 | 5 |
| | 1 | | SU202M-K1 | 2CDS272337R0217 | | 0.250 | 5 |
| | 1.6 | | SU202M-K1,6 | 2CDS272337R0257 | | 0.250 | 5 |
| | 2 | | SU202M-K2 | 2CDS272337R0277 | | 0.250 | 5 |
| | 3 | | SU202M-K3 | 2CDS272337R0317 | | 0.250 | 5 |
| | 4 | | SU202M-K4 | 2CDS272337R0337 | | 0.250 | 5 |
| | 5 | | SU202M-K5 | 2CDS272337R0357 | | 0.250 | 5 |
| | 6 | | SU202M-K6 | 2CDS272337R0377 | | 0.250 | 5 |
| | 8 | | SU202M-K8 | 2CDS272337R0407 | | 0.250 | 5 |
| | 10 | | SU202M-K10 | 2CDS272337R0427 | | 0.250 | 5 |
| | 13 | | SU202M-K13 | 2CDS272337R0447 | | 0.250 | 5 |
| | 15 | | SU202M-K15 | 2CDS272337R0457 | | 0.250 | 5 |
| | 16 | | SU202M-K16 | 2CDS272337R0467 | | 0.250 | 5 |
| | 20 | | SU202M-K20 | 2CDS272337R0487 | | 0.250 | 5 |
| | 25 | | SU202M-K25 | 2CDS272337R0517 | | 0.250 | 5 |
| | 30 | | SU202M-K30 | 2CDS272337R0527 | | 0.250 | 5 |
| | 32 | | SU202M-K32 | 2CDS272337R0537 | | 0.250 | 5 |
| | 35 | | SU202M-K35 | 2CDS272337R0547 | | 0.250 | 5 |
| | 40 | | SU202M-K40 | 2CDS272337R0557 | | 0.250 | 5 |
| | 50 | | SU202M-K50 | 2CDS272337R0577 | | 0.250 | 5 |
| | 60 | | SU202M-K60 | 2CDS272337R0587 | | 0.250 | 5 |
| | 63 | | SU202M-K63 | 2CDS272337R0607 | | 0.250 | 5 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 0.2 | | SU203M-K0,2 | 2CDS273337R0087 | | 0.375 | 3 |
| | 0.3 | | SU203M-K0,3 | 2CDS273337R0117 | | 0.375 | 3 |
| | 0.5 | | SU203M-K0,5 | 2CDS273337R0157 | | 0.375 | 3 |
| | 0.75 | | SU203M-K0,75 | 2CDS273337R0187 | | 0.375 | 3 |
| | 1 | | SU203M-K1 | 2CDS273337R0217 | | 0.375 | 3 |
| | 1.6 | | SU203M-K1,6 | 2CDS273337R0257 | | 0.375 | 3 |
| | 2 | | SU203M-K2 | 2CDS273337R0277 | | 0.375 | 3 |
| | 3 | | SU203M-K3 | 2CDS273337R0317 | | 0.375 | 3 |
| | 4 | | SU203M-K4 | 2CDS273337R0337 | | 0.375 | 3 |
| | 5 | | SU203M-K5 | 2CDS273337R0357 | | 0.375 | 3 |
| | 6 | | SU203M-K6 | 2CDS273337R0377 | | 0.375 | 3 |
| | 8 | | SU203M-K8 | 2CDS273337R0407 | | 0.375 | 3 |
| | 10 | | SU203M-K10 | 2CDS273337R0427 | | 0.375 | 3 |
| | 13 | | SU203M-K13 | 2CDS273337R0447 | | 0.375 | 3 |
| | 15 | | SU203M-K15 | 2CDS273337R0457 | | 0.375 | 3 |
| | 16 | | SU203M-K16 | 2CDS273337R0467 | | 0.375 | 3 |
| | 20 | | SU203M-K20 | 2CDS273337R0487 | | 0.375 | 3 |
| | 25 | | SU203M-K25 | 2CDS273337R0517 | | 0.375 | 3 |
| | 30 | | SU203M-K30 | 2CDS273337R0527 | | 0.375 | 3 |
| | 32 | | SU203M-K32 | 2CDS273337R0537 | | 0.375 | 3 |
| | 35 | | SU203M-K35 | 2CDS273337R0547 | | 0.375 | 3 |
| | 40 | | SU203M-K40 | 2CDS273337R0557 | | 0.375 | 3 |
| | 50 | | SU203M-K50 | 2CDS273337R0577 | | 0.375 | 3 |
| | 60 | | SU203M-K60 | 2CDS273337R0587 | | 0.375 | 3 |
| | 63 | | SU203M-K63 | 2CDS273337R0607 | | 0.375 | 3 |

# MCBs
## SU 200 M series K characteristic



| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.2 | | SU204M-K0,2 | 2CDS274337R0087 | | 0.500 | 2 |
| | 0.3 | | SU204M-K0,3 | 2CDS274337R0117 | | 0.500 | 2 |
| | 0.5 | | SU204M-K0,5 | 2CDS274337R0157 | | 0.500 | 2 |
| | 0.75 | | SU204M-K0,75 | 2CDS274337R0187 | | 0.500 | 2 |
| | 1 | | SU204M-K1 | 2CDS274337R0217 | | 0.500 | 2 |
| | 1.6 | | SU204M-K1,6 | 2CDS274337R0257 | | 0.500 | 2 |
| | 2 | | SU204M-K2 | 2CDS274337R0277 | | 0.500 | 2 |
| | 3 | | SU204M-K3 | 2CDS274337R0317 | | 0.500 | 2 |
| | 4 | | SU204M-K4 | 2CDS274337R0337 | | 0.500 | 2 |
| | 5 | | SU204M-K5 | 2CDS274337R0357 | | 0.500 | 2 |
| | 6 | | SU204M-K6 | 2CDS274337R0377 | | 0.500 | 2 |
| | 8 | | SU204M-K8 | 2CDS274337R0407 | | 0.500 | 2 |
| | 10 | | SU204M-K10 | 2CDS274337R0427 | | 0.500 | 2 |
| | 13 | | SU204M-K13 | 2CDS274337R0447 | | 0.500 | 2 |
| | 15 | | SU204M-K15 | 2CDS274337R0457 | | 0.500 | 2 |
| | 16 | | SU204M-K16 | 2CDS274337R0467 | | 0.500 | 2 |
| | 20 | | SU204M-K20 | 2CDS274337R0487 | | 0.500 | 2 |
| | 25 | | SU204M-K25 | 2CDS274337R0517 | | 0.500 | 2 |
| | 30 | | SU204M-K30 | 2CDS274337R0527 | | 0.500 | 2 |
| | 32 | | SU204M-K32 | 2CDS274337R0537 | | 0.500 | 2 |
| | 35 | | SU204M-K35 | 2CDS274337R0547 | | 0.500 | 2 |
| | 40 | | SU204M-K40 | 2CDS274337R0557 | | 0.500 | 2 |
| | 50 | | SU204M-K50 | 2CDS274337R0577 | | 0.500 | 2 |
| | 60 | | SU204M-K60 | 2CDS274337R0587 | | 0.500 | 2 |
| | 63 | | SU204M-K63 | 2CDS274337R0607 | | 0.500 | 2 |

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# MCBs
# SU 200 M series Z characteristic



## SU 200 M-Z characteristic

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | | SU201M-Z0,5 | 2CDS271337R0158 | | 0.125 | 10 |
| | 1 | | SU201M-Z1 | 2CDS271337R0218 | | 0.125 | 10 |
| | 1.6 | | SU201M-Z1,6 | 2CDS271337R0258 | | 0.125 | 10 |
| | 2 | | SU201M-Z2 | 2CDS271337R0278 | | 0.125 | 10 |
| | 3 | | SU201M-Z3 | 2CDS271337R0318 | | 0.125 | 10 |
| | 4 | | SU201M-Z4 | 2CDS271337R0338 | | 0.125 | 10 |
| | 5 | | SU201M-Z5 | 2CDS271337R0358 | | 0.125 | 10 |
| | 6 | | SU201M-Z6 | 2CDS271337R0378 | | 0.125 | 10 |
| | 8 | | SU201M-Z8 | 2CDS271337R0408 | | 0.125 | 10 |
| | 10 | | SU201M-Z10 | 2CDS271337R0428 | | 0.125 | 10 |
| | 13 | | SU201M-Z13 | 2CDS271337R0448 | | 0.125 | 10 |
| | 15 | | SU201M-Z15 | 2CDS271337R0458 | | 0.125 | 10 |
| | 16 | | SU201M-Z16 | 2CDS271337R0468 | | 0.125 | 10 |
| | 20 | | SU201M-Z20 | 2CDS271337R0488 | | 0.125 | 10 |
| | 25 | | SU201M-Z25 | 2CDS271337R0518 | | 0.125 | 10 |
| | 30 | | SU201M-Z30 | 2CDS271337R0528 | | 0.125 | 10 |
| | 32 | | SU201M-Z32 | 2CDS271337R0538 | | 0.125 | 10 |
| | 35 | | SU201M-Z35 | 2CDS271337R0548 | | 0.125 | 10 |
| | 40 | | SU201M-Z40 | 2CDS271337R0558 | | 0.125 | 10 |
| | 50 | | SU201M-Z50 | 2CDS271337R0578 | | 0.125 | 10 |
| | 60 | | SU201M-Z60 | 2CDS271337R0588 | | 0.125 | 10 |
| | 63 | | SU201M-Z63 | 2CDS271337R0608 | | 0.125 | 10 |

# MCBs
## SU 200 M series Z characteristic

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.5 | | SU202M-Z0,5 | 2CDS272337R0158 | | 0.250 | 5 |
| | 1 | | SU202M-Z1 | 2CDS272337R0218 | | 0.250 | 5 |
| | 1.6 | | SU202M-Z1,6 | 2CDS272337R0258 | | 0.250 | 5 |
| | 2 | | SU202M-Z2 | 2CDS272337R0278 | | 0.250 | 5 |
| | 3 | | SU202M-Z3 | 2CDS272337R0318 | | 0.250 | 5 |
| | 4 | | SU202M-Z4 | 2CDS272337R0338 | | 0.250 | 5 |
| | 5 | | SU202M-Z5 | 2CDS272337R0358 | | 0.250 | 5 |
| | 6 | | SU202M-Z6 | 2CDS272337R0378 | | 0.250 | 5 |
| | 8 | | SU202M-Z8 | 2CDS272337R0408 | | 0.250 | 5 |
| | 10 | | SU202M-Z10 | 2CDS272337R0428 | | 0.250 | 5 |
| | 13 | | SU202M-Z13 | 2CDS272337R0448 | | 0.250 | 5 |
| | 15 | | SU202M-Z15 | 2CDS272337R0458 | | 0.250 | 5 |
| | 16 | | SU202M-Z16 | 2CDS272337R0468 | | 0.250 | 5 |
| | 20 | | SU202M-Z20 | 2CDS272337R0488 | | 0.250 | 5 |
| | 25 | | SU202M-Z25 | 2CDS272337R0518 | | 0.250 | 5 |
| | 30 | | SU202M-Z30 | 2CDS272337R0528 | | 0.250 | 5 |
| | 32 | | SU202M-Z32 | 2CDS272337R0538 | | 0.250 | 5 |
| | 35 | | SU202M-Z35 | 2CDS272337R0548 | | 0.250 | 5 |
| | 40 | | SU202M-Z40 | 2CDS272337R0558 | | 0.250 | 5 |
| | 50 | | SU202M-Z50 | 2CDS272337R0578 | | 0.250 | 5 |
| | 60 | | SU202M-Z60 | 2CDS272337R0588 | | 0.250 | 5 |
| | 63 | | SU202M-Z63 | 2CDS272337R0608 | | 0.250 | 5 |

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.5 | | SU203M-Z0,5 | 2CDS273337R0158 | | 0.375 | 3 |
| | 1 | | SU203M-Z1 | 2CDS273337R0218 | | 0.375 | 3 |
| | 1.6 | | SU203M-Z1,6 | 2CDS273337R0258 | | 0.375 | 3 |
| | 2 | | SU203M-Z2 | 2CDS273337R0278 | | 0.375 | 3 |
| | 3 | | SU203M-Z3 | 2CDS273337R0318 | | 0.375 | 3 |
| | 4 | | SU203M-Z4 | 2CDS273337R0338 | | 0.375 | 3 |
| | 5 | | SU203M-Z5 | 2CDS273337R0358 | | 0.375 | 3 |
| | 6 | | SU203M-Z6 | 2CDS273337R0378 | | 0.375 | 3 |
| | 8 | | SU203M-Z8 | 2CDS273337R0408 | | 0.375 | 3 |
| | 10 | | SU203M-Z10 | 2CDS273337R0428 | | 0.375 | 3 |
| | 13 | | SU203M-Z13 | 2CDS273337R0448 | | 0.375 | 3 |
| | 15 | | SU203M-Z15 | 2CDS273337R0458 | | 0.375 | 3 |
| | 16 | | SU203M-Z16 | 2CDS273337R0468 | | 0.375 | 3 |
| | 20 | | SU203M-Z20 | 2CDS273337R0488 | | 0.375 | 3 |
| | 25 | | SU203M-Z25 | 2CDS273337R0518 | | 0.375 | 3 |
| | 30 | | SU203M-Z30 | 2CDS273337R0528 | | 0.375 | 3 |
| | 32 | | SU203M-Z32 | 2CDS273337R0538 | | 0.375 | 3 |
| | 35 | | SU203M-Z35 | 2CDS273337R0548 | | 0.375 | 3 |
| | 40 | | SU203M-Z40 | 2CDS273337R0558 | | 0.375 | 3 |
| | 50 | | SU203M-Z50 | 2CDS273337R0578 | | 0.375 | 3 |
| | 60 | | SU203M-Z60 | 2CDS273337R0588 | | 0.375 | 3 |
| | 63 | | SU203M-Z63 | 2CDS273337R0608 | | 0.375 | 3 |

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| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 0.5 | | SU204M-Z0,5 | 2CDS274337R0158 | | 0.500 | 2 |
| | 1 | | SU204M-Z1 | 2CDS274337R0218 | | 0.500 | 2 |
| | 1.6 | | SU204M-Z1,6 | 2CDS274337R0258 | | 0.500 | 2 |
| | 2 | | SU204M-Z2 | 2CDS274337R0278 | | 0.500 | 2 |
| | 3 | | SU204M-Z3 | 2CDS274337R0318 | | 0.500 | 2 |
| | 4 | | SU204M-Z4 | 2CDS274337R0338 | | 0.500 | 2 |
| | 5 | | SU204M-Z5 | 2CDS274337R0358 | | 0.500 | 2 |
| | 6 | | SU204M-Z6 | 2CDS274337R0378 | | 0.500 | 2 |
| | 8 | | SU204M-Z8 | 2CDS274337R0408 | | 0.500 | 2 |
| | 10 | | SU204M-Z10 | 2CDS274337R0428 | | 0.500 | 2 |
| | 13 | | SU204M-Z13 | 2CDS274337R0448 | | 0.500 | 2 |
| | 15 | | SU204M-Z15 | 2CDS274337R0458 | | 0.500 | 2 |
| | 16 | | SU204M-Z16 | 2CDS274337R0468 | | 0.500 | 2 |
| | 20 | | SU204M-Z20 | 2CDS274337R0488 | | 0.500 | 2 |
| | 25 | | SU204M-Z25 | 2CDS274337R0518 | | 0.500 | 2 |
| | 30 | | SU204M-Z30 | 2CDS274337R0528 | | 0.500 | 2 |
| | 32 | | SU204M-Z32 | 2CDS274337R0538 | | 0.500 | 2 |
| | 35 | | SU204M-Z35 | 2CDS274337R0548 | | 0.500 | 2 |
| | 40 | | SU204M-Z40 | 2CDS274337R0558 | | 0.500 | 2 |
| | 50 | | SU204M-Z50 | 2CDS274337R0578 | | 0.500 | 2 |
| | 60 | | SU204M-Z60 | 2CDS274337R0588 | | 0.500 | 2 |
| | 63 | | SU204M-Z63 | 2CDS274337R0608 | | 0.500 | 2 |

# MCBs
## SU 200 series PR - UL range K characteristic






SU 201 PR

### SU 200 PR-K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The integrated captive connecting screws smplify the connection of electric lines, provides extra protection and saves time.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, UL489, CSA 22.2 No. 5**

**SCCR: 10 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.2 | 9847865 | SU201PR-K0.2 | 2CDS271327R0087 | | 0.140 | 10 |
| | 0.3 | 9847872 | SU201PR-K0.3 | 2CDS271327R0117 | | 0.140 | 10 |
| | 0.5 | 9847889 | SU201PR-K0.5 | 2CDS271327R0157 | | 0.140 | 10 |
| | 0.75 | 9847896 | SU201PR-K0.75 | 2CDS271327R0187 | | 0.140 | 10 |
| | 1 | 9847902 | SU201PR-K1 | 2CDS271327R0217 | | 0.140 | 10 |
| | 1.6 | 9847919 | SU201PR-K1.6 | 2CDS271327R0257 | | 0.140 | 10 |
| | 2 | 9847926 | SU201PR-K2 | 2CDS271327R0277 | | 0.140 | 10 |
| | 3 | 9847933 | SU201PR-K3 | 2CDS271327R0317 | | 0.140 | 10 |
| | 4 | 9847940 | SU201PR-K4 | 2CDS271327R0337 | | 0.140 | 10 |
| | 5 | 9847957 | SU201PR-K5 | 2CDS271327R0357 | | 0.140 | 10 |
| | 6 | 9847964 | SU201PR-K6 | 2CDS271327R0377 | | 0.140 | 10 |
| | 8 | 9847971 | SU201PR-K8 | 2CDS271327R0407 | | 0.140 | 10 |
| | 10 | 9847988 | SU201PR-K10 | 2CDS271327R0427 | | 0.140 | 10 |
| | 13 | 9847995 | SU201PR-K13 | 2CDS271327R0447 | | 0.140 | 10 |
| | 15 | 9848008 | SU201PR-K15 | 2CDS271327R0457 | | 0.140 | 10 |
| | 16 | 9848015 | SU201PR-K16 | 2CDS271327R0467 | | 0.140 | 10 |
| | 20 | 9848022 | SU201PR-K20 | 2CDS271327R0487 | | 0.140 | 10 |
| | 25 | 9848039 | SU201PR-K25 | 2CDS271327R0517 | | 0.140 | 10 |
| | 30 | 9848046 | SU201PR-K30 | 2CDS271327R0527 | | 0.140 | 10 |
| | 32 | 9848053 | SU201PR-K32 | 2CDS271327R0537 | | 0.140 | 10 |
| | 35 | 9848060 | SU201PR-K35 | 2CDS271327R0547 | | 0.140 | 10 |
| | 40 | 9848077 | SU201PR-K40 | 2CDS271327R0557 | | 0.140 | 10 |
| | 50 | 9848084 | SU201PR-K50 | 2CDS271327R0577 | | 0.140 | 10 |
| | 60 | 9848091 | SU201PR-K60 | 2CDS271327R0587 | | 0.140 | 10 |
| | 63 | 9848107 | SU201PR-K63 | 2CDS271327R0607 | | 0.140 | 10 |

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# MCBs
## SU 200 series PR - UL range K characteristic




SU 202 PR

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.2 | 9848114 | SU202PR-K0.2 | 2CDS272327R0087 | | 0.280 | 5 |
| | 0.3 | 9848121 | SU202PR-K0.3 | 2CDS272327R0117 | | 0.280 | 5 |
| | 0.5 | 9848138 | SU202PR-K0.5 | 2CDS272327R0157 | | 0.280 | 5 |
| | 0.75 | 9848145 | SU202PR-K0.75 | 2CDS272327R0187 | | 0.280 | 5 |
| | 1 | 9848152 | SU202PR-K1 | 2CDS272327R0217 | | 0.280 | 5 |
| | 1.6 | 9848169 | SU202PR-K1.6 | 2CDS272327R0257 | | 0.280 | 5 |
| | 2 | 9848176 | SU202PR-K2 | 2CDS272327R0277 | | 0.280 | 5 |
| | 3 | 9848183 | SU202PR-K3 | 2CDS272327R0317 | | 0.280 | 5 |
| | 4 | 9848190 | SU202PR-K4 | 2CDS272327R0337 | | 0.280 | 5 |
| | 5 | 9848206 | SU202PR-K5 | 2CDS272327R0357 | | 0.280 | 5 |
| | 6 | 9848213 | SU202PR-K6 | 2CDS272327R0377 | | 0.280 | 5 |
| | 8 | 9848220 | SU202PR-K8 | 2CDS272327R0407 | | 0.280 | 5 |
| | 10 | 9848237 | SU202PR-K10 | 2CDS272327R0427 | | 0.280 | 5 |
| | 13 | 9848244 | SU202PR-K13 | 2CDS272327R0447 | | 0.280 | 5 |
| | 15 | 9848251 | SU202PR-K15 | 2CDS272327R0457 | | 0.280 | 5 |
| | 16 | 9848268 | SU202PR-K16 | 2CDS272327R0467 | | 0.280 | 5 |
| | 20 | 9848275 | SU202PR-K20 | 2CDS272327R0487 | | 0.280 | 5 |
| | 25 | 9848282 | SU202PR-K25 | 2CDS272327R0517 | | 0.280 | 5 |
| | 30 | 9848299 | SU202PR-K30 | 2CDS272327R0527 | | 0.280 | 5 |
| | 32 | 9848305 | SU202PR-K32 | 2CDS272327R0537 | | 0.280 | 5 |
| | 35 | 9848312 | SU202PR-K35 | 2CDS272327R0547 | | 0.280 | 5 |
| | 40 | 9848329 | SU202PR-K40 | 2CDS272327R0557 | | 0.280 | 5 |
| | 50 | 9848336 | SU202PR-K50 | 2CDS272327R0577 | | 0.280 | 5 |
| | 60 | 9848343 | SU202PR-K60 | 2CDS272327R0587 | | 0.280 | 5 |
| | 63 | 9848350 | SU202PR-K63 | 2CDS272327R0607 | | 0.280 | 5 |

# MCBs
## SU 200 series PR - UL range K characteristic






SU 203 PR




SU 204 PR

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.2 | 9848367 | SU203PR-K0.2 | 2CDS273327R0087 | | 0.420 | 3 |
| | 0.3 | 9848374 | SU203PR-K0.3 | 2CDS273327R0117 | | 0.420 | 3 |
| | 0.5 | 9848381 | SU203PR-K0.5 | 2CDS273327R0157 | | 0.420 | 3 |
| | 0.75 | 9848398 | SU203PR-K0.75 | 2CDS273327R0187 | | 0.420 | 3 |
| | 1 | 9848404 | SU203PR-K1 | 2CDS273327R0217 | | 0.420 | 3 |
| | 1.6 | 9848411 | SU203PR-K1.6 | 2CDS273327R0257 | | 0.420 | 3 |
| | 2 | 9848428 | SU203PR-K2 | 2CDS273327R0277 | | 0.420 | 3 |
| | 3 | 9848435 | SU203PR-K3 | 2CDS273327R0317 | | 0.420 | 3 |
| | 4 | 9848442 | SU203PR-K4 | 2CDS273327R0337 | | 0.420 | 3 |
| | 5 | 9848459 | SU203PR-K5 | 2CDS273327R0357 | | 0.420 | 3 |
| | 6 | 9848466 | SU203PR-K6 | 2CDS273327R0377 | | 0.420 | 3 |
| | 8 | 9848473 | SU203PR-K8 | 2CDS273327R0407 | | 0.420 | 3 |
| | 10 | 9848480 | SU203PR-K10 | 2CDS273327R0427 | | 0.420 | 3 |
| | 13 | 9848497 | SU203PR-K13 | 2CDS273327R0447 | | 0.420 | 3 |
| | 15 | 9848503 | SU203PR-K15 | 2CDS273327R0457 | | 0.420 | 3 |
| | 16 | 9848510 | SU203PR-K16 | 2CDS273327R0467 | | 0.420 | 3 |
| | 20 | 9848527 | SU203PR-K20 | 2CDS273327R0487 | | 0.420 | 3 |
| | 25 | 9848534 | SU203PR-K25 | 2CDS273327R0517 | | 0.420 | 3 |
| | 30 | 9848541 | SU203PR-K30 | 2CDS273327R0527 | | 0.420 | 3 |
| | 32 | 9848558 | SU203PR-K32 | 2CDS273327R0537 | | 0.420 | 3 |
| | 35 | 9848565 | SU203PR-K35 | 2CDS273327R0547 | | 0.420 | 3 |
| | 40 | 9848572 | SU203PR-K40 | 2CDS273327R0557 | | 0.420 | 3 |
| | 50 | 9848589 | SU203PR-K50 | 2CDS273327R0577 | | 0.420 | 3 |
| | 60 | 9848596 | SU203PR-K60 | 2CDS273327R0587 | | 0.420 | 3 |
| | 63 | 9848602 | SU203PR-K63 | 2CDS273327R0607 | | 0.420 | 3 |
| 4 | 0.2 | 9848619 | SU204PR-K0.2 | 2CDS274327R0087 | | 0.560 | 2 |
| | 0.3 | 9848626 | SU204PR-K0.3 | 2CDS274327R0117 | | 0.560 | 2 |
| | 0.5 | 9848633 | SU204PR-K0.5 | 2CDS274327R0157 | | 0.560 | 2 |
| | 0.75 | 9848640 | SU204PR-K0.75 | 2CDS274327R0187 | | 0.560 | 2 |
| | 1 | 9848657 | SU204PR-K1 | 2CDS274327R0217 | | 0.560 | 2 |
| | 1.6 | 9848664 | SU204PR-K1.6 | 2CDS274327R0257 | | 0.560 | 2 |
| | 2 | 9848671 | SU204PR-K2 | 2CDS274327R0277 | | 0.560 | 2 |
| | 3 | 9848688 | SU204PR-K3 | 2CDS274327R0317 | | 0.560 | 2 |
| | 4 | 9848695 | SU204PR-K4 | 2CDS274327R0337 | | 0.560 | 2 |
| | 5 | 9848701 | SU204PR-K5 | 2CDS274327R0357 | | 0.560 | 2 |
| | 6 | 9848718 | SU204PR-K6 | 2CDS274327R0377 | | 0.560 | 2 |
| | 8 | 9848725 | SU204PR-K8 | 2CDS274327R0407 | | 0.560 | 2 |
| | 10 | 9848732 | SU204PR-K10 | 2CDS274327R0427 | | 0.560 | 2 |
| | 13 | 9848749 | SU204PR-K13 | 2CDS274327R0447 | | 0.560 | 2 |
| | 15 | 9848756 | SU204PR-K15 | 2CDS274327R0457 | | 0.560 | 2 |
| | 16 | 9848763 | SU204PR-K16 | 2CDS274327R0467 | | 0.560 | 2 |
| | 20 | 9848770 | SU204PR-K20 | 2CDS274327R0487 | | 0.560 | 2 |
| | 25 | 9848787 | SU204PR-K25 | 2CDS274327R0517 | | 0.560 | 2 |
| | 30 | 9848794 | SU204PR-K30 | 2CDS274327R0527 | | 0.560 | 2 |
| | 32 | 9848800 | SU204PR-K32 | 2CDS274327R0537 | | 0.560 | 2 |
| | 35 | 9848817 | SU204PR-K35 | 2CDS274327R0547 | | 0.560 | 2 |
| | 40 | 9848824 | SU204PR-K40 | 2CDS274327R0557 | | 0.560 | 2 |
| | 50 | 9848831 | SU204PR-K50 | 2CDS274327R0577 | | 0.560 | 2 |
| | 60 | 9848848 | SU204PR-K60 | 2CDS274327R0587 | | 0.560 | 2 |
| | 63 | 9848855 | SU204PR-K63 | 2CDS274327R0607 | | 0.560 | 2 |

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# S 200 series UDC - Universal current range, UL, K characteristic






S 201 UDC

## S 200 UDC-K characteristic

Function: protection and control of the circuits like motors, transformers and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: UL 489, CSA 22.2 No. 5**

**(only DC, please note polarity of device)**

**Short-circuit current rating (SCCR acc. to UL 489): 14 kA**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 825924 | S201UDC-K1 | 2CDS271517R0217 | | 0.150 | 10 |
| | 1,6 | 825948 | S201UDC-K1.6 | 2CDS271517R0257 | | 0.150 | 10 |
| | 2 | 825955 | S201UDC-K2 | 2CDS271517R0277 | | 0.150 | 10 |
| | 3 | 825962 | S201UDC-K3 | 2CDS271517R0317 | | 0.150 | 10 |
| | 4 | 825979 | S201UDC-K4 | 2CDS271517R0337 | | 0.150 | 10 |
| | 5 | 825986 | S201UDC-K5 | 2CDS271517R0357 | | 0.150 | 10 |
| | 6 | 825993 | S201UDC-K6 | 2CDS271517R0377 | | 0.150 | 10 |
| | 8 | 826006 | S201UDC-K8 | 2CDS271517R0407 | | 0.150 | 10 |
| | 10 | 826013 | S201UDC-K10 | 2CDS271517R0427 | | 0.150 | 10 |
| | 13 | 826020 | S201UDC-K13 | 2CDS271517R0447 | | 0.150 | 10 |
| | 15 | 826037 | S201UDC-K15 | 2CDS271517R0457 | | 0.150 | 10 |
| | 16 | 826044 | S201UDC-K16 | 2CDS271517R0467 | | 0.150 | 10 |
| | 20 | 826051 | S201UDC-K20 | 2CDS271517R0487 | | 0.150 | 10 |
| | 25 | 826068 | S201UDC-K25 | 2CDS271517R0517 | | 0.150 | 10 |
| | 30 | 826075 | S201UDC-K30 | 2CDS271517R0527 | | 0.150 | 10 |
| | 32 | 826082 | S201UDC-K32 | 2CDS271517R0537 | | 0.150 | 10 |
| | 40 | 826099 | S201UDC-K40 | 2CDS271517R0557 | | 0.150 | 10 |
| | 50 | 826105 | S201UDC-K50 | 2CDS271517R0577 | | 0.150 | 10 |
| | 60 | 826112 | S201UDC-K60 | 2CDS271517R0587 | | 0.150 | 10 |
| | 63 | 826129 | S201UDC-K63 | 2CDS271517R0607 | | 0.150 | 10 |

# MCBs
## S 200 series UDC - Universal current range, UL, K characteristic






**S 202 UDC**

| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 1 | 825061 | S202UDC-K1 | 2CDS272517R0217 | | 0.300 | 5 |
| | 1,6 | 825160 | S202UDC-K1.6 | 2CDS272517R0257 | | 0.300 | 5 |
| | 2 | 825177 | S202UDC-K2 | 2CDS272517R0277 | | 0.300 | 5 |
| | 3 | 825184 | S202UDC-K3 | 2CDS272517R0317 | | 0.300 | 5 |
| | 4 | 825191 | S202UDC-K4 | 2CDS272517R0337 | | 0.300 | 5 |
| | 5 | 825207 | S202UDC-K5 | 2CDS272517R0357 | | 0.300 | 5 |
| | 6 | 825214 | S202UDC-K6 | 2CDS272517R0377 | | 0.300 | 5 |
| | 8 | 825221 | S202UDC-K8 | 2CDS272517R0407 | | 0.300 | 5 |
| | 10 | 825238 | S202UDC-K10 | 2CDS272517R0427 | | 0.300 | 5 |
| | 13 | 825245 | S202UDC-K13 | 2CDS272517R0447 | | 0.300 | 5 |
| | 15 | 825252 | S202UDC-K15 | 2CDS272517R0457 | | 0.300 | 5 |
| | 16 | 825269 | S202UDC-K16 | 2CDS272517R0467 | | 0.300 | 5 |
| | 20 | 825276 | S202UDC-K20 | 2CDS272517R0487 | | 0.300 | 5 |
| | 25 | 825283 | S202UDC-K25 | 2CDS272517R0517 | | 0.300 | 5 |
| | 30 | 825290 | S202UDC-K30 | 2CDS272517R0527 | | 0.300 | 5 |
| | 32 | 825306 | S202UDC-K32 | 2CDS272517R0537 | | 0.300 | 5 |
| | 40 | 825313 | S202UDC-K40 | 2CDS272517R0557 | | 0.300 | 5 |
| | 50 | 825320 | S202UDC-K50 | 2CDS272517R0577 | | 0.300 | 5 |
| | 60 | 825337 | S202UDC-K60 | 2CDS272517R0587 | | 0.300 | 5 |
| | 63 | 825344 | S202UDC-K63 | 2CDS272517R0607 | | 0.300 | 5 |

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S 201 UDC




S 202 UDC

## S 200 UDC-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

**Applications: commercial and industrial.**
**Standard: UL 489, CSA 22.2 No. 5**
**(only DC, please note polarity of device)**
**Short-circuit current rating (SCCR acc. to UL 489): 14 kA**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 1 | 826136 | S201UDC-Z1 | 2CDS271517R0218 | | 0.150 | 10 |
| | 1,6 | 826143 | S201UDC-Z1.6 | 2CDS271517R0258 | | 0.150 | 10 |
| | 2 | 826150 | S201UDC-Z2 | 2CDS271517R0278 | | 0.150 | 10 |
| | 3 | 826167 | S201UDC-Z3 | 2CDS271517R0318 | | 0.150 | 10 |
| | 4 | 826174 | S201UDC-Z4 | 2CDS271517R0338 | | 0.150 | 10 |
| | 5 | 826181 | S201UDC-Z5 | 2CDS271517R0358 | | 0.150 | 10 |
| | 6 | 826198 | S201UDC-Z6 | 2CDS271517R0378 | | 0.150 | 10 |
| | 8 | 826204 | S201UDC-Z8 | 2CDS271517R0408 | | 0.150 | 10 |
| | 10 | 826211 | S201UDC-Z10 | 2CDS271517R0428 | | 0.150 | 10 |
| | 15 | 826228 | S201UDC-Z15 | 2CDS271517R0458 | | 0.150 | 10 |
| | 16 | 826235 | S201UDC-Z16 | 2CDS271517R0468 | | 0.150 | 10 |
| | 20 | 826242 | S201UDC-Z20 | 2CDS271517R0488 | | 0.150 | 10 |
| | 25 | 826259 | S201UDC-Z25 | 2CDS271517R0518 | | 0.150 | 10 |
| | 30 | 826266 | S201UDC-Z30 | 2CDS271517R0528 | | 0.150 | 10 |
| | 32 | 826273 | S201UDC-Z32 | 2CDS271517R0538 | | 0.150 | 10 |
| | 40 | 826280 | S201UDC-Z40 | 2CDS271517R0558 | | 0.150 | 10 |
| | 50 | 826297 | S201UDC-Z50 | 2CDS271517R0578 | | 0.150 | 10 |
| | 60 | 826303 | S201UDC-Z60 | 2CDS271517R0588 | | 0.150 | 10 |
| | 63 | 826310 | S201UDC-Z63 | 2CDS271517R0608 | | 0.150 | 10 |

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 1 | 825351 | S202UDC-Z1 | 2CDS272517R0218 | | 0.300 | 5 |
| | 1,6 | 825368 | S202UDC-Z1.6 | 2CDS272517R0258 | | 0.300 | 5 |
| | 2 | 825375 | S202UDC-Z2 | 2CDS272517R0278 | | 0.300 | 5 |
| | 3 | 825382 | S202UDC-Z3 | 2CDS272517R0318 | | 0.300 | 5 |
| | 4 | 825399 | S202UDC-Z4 | 2CDS272517R0338 | | 0.300 | 5 |
| | 5 | 825405 | S202UDC-Z5 | 2CDS272517R0358 | | 0.300 | 5 |
| | 6 | 825412 | S202UDC-Z6 | 2CDS272517R0378 | | 0.300 | 5 |
| | 8 | 825429 | S202UDC-Z8 | 2CDS272517R0408 | | 0.300 | 5 |
| | 10 | 825436 | S202UDC-Z10 | 2CDS272517R0428 | | 0.300 | 5 |
| | 15 | 825443 | S202UDC-Z15 | 2CDS272517R0458 | | 0.300 | 5 |
| | 16 | 825450 | S202UDC-Z16 | 2CDS272517R0468 | | 0.300 | 5 |
| | 20 | 825467 | S202UDC-Z20 | 2CDS272517R0488 | | 0.300 | 5 |
| | 25 | 825474 | S202UDC-Z25 | 2CDS272517R0518 | | 0.300 | 5 |
| | 30 | 825481 | S202UDC-Z30 | 2CDS272517R0528 | | 0.300 | 5 |
| | 32 | 825498 | S202UDC-Z32 | 2CDS272517R0538 | | 0.300 | 5 |
| | 40 | 825504 | S202UDC-Z40 | 2CDS272517R0558 | | 0.300 | 5 |
| | 50 | 825511 | S202UDC-Z50 | 2CDS272517R0578 | | 0.300 | 5 |
| | 60 | 825528 | S202UDC-Z60 | 2CDS272517R0588 | | 0.300 | 5 |
| | 63 | 825535 | S202UDC-Z63 | 2CDS272517R0608 | | 0.300 | 5 |

# MCB SN 201. The details make the difference
## A range designed to ensure efficiency and protection



Easy wiring with 1P+N busbars

Quick identification thanks to laser printed EAN marking.

A wide range of accessories is available

1P+N protection in only one module



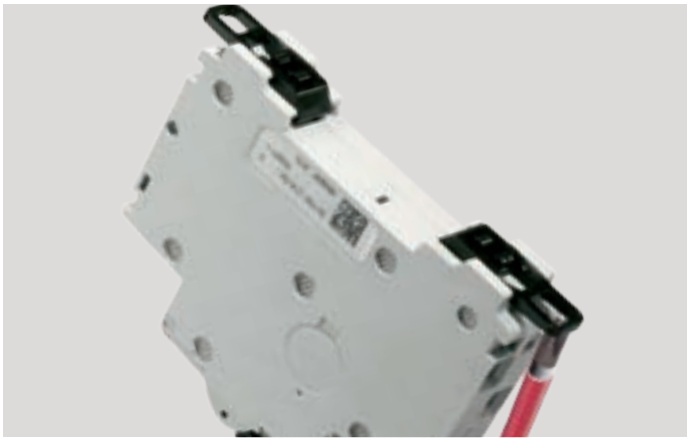

Easy identification of the product and highly resistant laser marking.

Contact position indicator on the level, with Green/ Red indicator

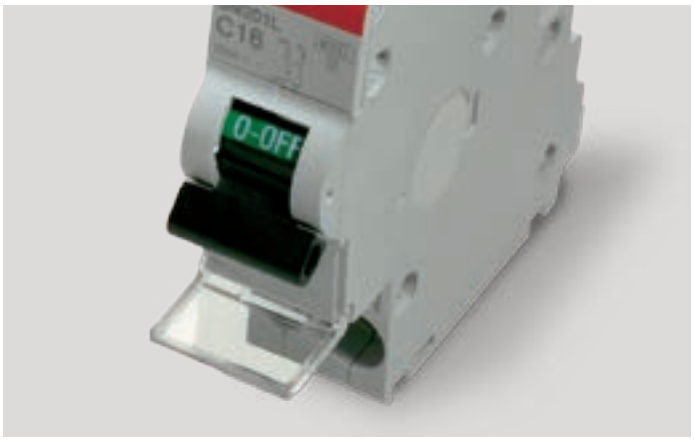
Label carrier for easy identification



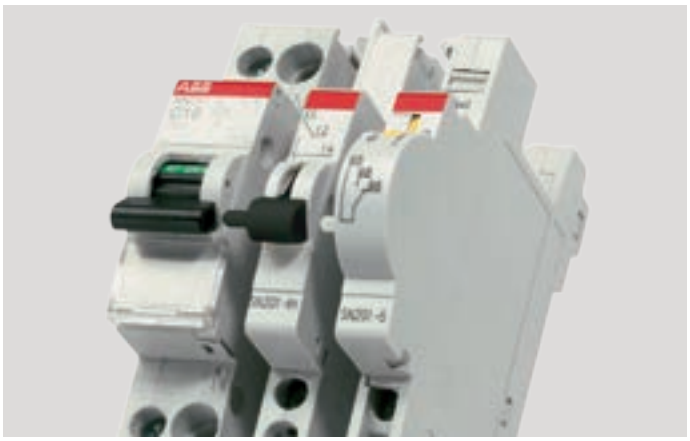

Space for insulated screwdrivers: the larger neutral hole allows the use of an insulated screwdriver to tighten the screws of both wire terminals, ensuring maximum safety of the operation.



Two bistable fixing devices for maximum ease of use: due to larger size of the DIN rail fixing system, made with 2 bistable fixing devices, the same screwdriver used for tightening the terminals can also be used for assembling and disassembling the device.




With the practical label carrier fitted in the new SN201 circuit-breakers you can give maximum visibility to the information relating to the protected loads.



The SN201 fully integrates with the range of System pro *M* compact® miniature circuit-breakers, sharing the wide selection of accessories available through a dedicated interface (half module), which also can be used as auxiliary contact.

# Miniature circuit-breakers
## SN 201 series - 1P+N in one module housing






**SN 201**

| | | | |
|---|---|---|---|
| General Data | Standards | | |
| | Poles | | |
| | Tripping characteristics | | |
| | Rated current $I_n$ | A | |
| | Rated frequency f | Hz | |
| | Rated insulation voltage $U_i$ acc. to DIN EN 60664-1 | V | |
| | Overvoltage category | | |
| | Pollution degree | | |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage $U_n$ | V | |
| | Max. power frequency recovery voltage ($U_{max}$) | V | |
| | Min. operating voltage | V | |
| | Rated short-circuit capacity $I_{cn}$ | kA | |
| | Rated making and breaking capacity of one individual pole $I_{cn1}$ | kA | |
| | Energy limiting class (B, C up to 40A) | | |
| | Rated impulse withstand voltage $U_{imp}$ (1.2/50µs) | kV | |
| | Dielectric test voltage | kV | |
| | Reference temperature for tripping characteristics | °C | |
| | Electrical endurance | operations | |
| Data acc. to IEC/EN 60947-2 | Rated ultimate short-circuit breaking capacity $I_{cu}$ | kA | |
| | Rated service short-circuit breaking capacity $I_{cs}$ | kA | |
| Mechanical Data | Housing | | |
| | Toggle | | |
| | Contact position indication | | |
| | Protection degree acc. to EN 60529 | | |
| | Mechanical endurance | operations | |
| | Shock resistance acc. to IEC/EN 60068-2-27 | | |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | °C/RH | |
| | Ambient temperature (with daily average ≤ +35°C) | °C | |
| | Storage temperature | °C | |
| Installation | Cross-section of conductors (top/bottom) Stranded / Solid | $mm^2$ | |
| | Cross-section of conductors (top/bottom) Flexible | $mm^2$ | |
| | Tightening Torque | Nm | |
| | Mounting | | |
| | Mounting Position | | |
| | Supply | | |
| Dimensions and weight | Pole dimensions (H x D x W) | mm | |
| | Pole weight | g | |
| Combination with aux. elements | Auxiliary contact | | |
| | Signal contact/auxiliary switch | | |
| | Shunt trip | | |
| | Undervoltage release | | |

① SN201 and SN201M series in B and D characteristic are available for rated current In ≥ 6 A

| | SN 201 L | SN 201 | SN 201 M |
|---|---|---|---|
| | IEC/EN 60898 | | |
| | 1P + N | | |
| | B, C | B, C, D | B, C |
| | 2…40 A ① | | |
| | 50 / 60 Hz | | |
| | 500 V AC | | |
| | III | | |
| | 2 | | |
| | 230 V AC | | |
| | 254 V AC 1P: 60 V DC 1P+N: 125 V DC | | |
| | 12 V AC - 12 V DC | | |
| | 4.5 kA | 6 kA | 10 kA |
| | 4.5 kA | 6 kA | 6 kA |
| | 3 | | |
| | 4 kV (test voltage 6,2kV at sea level, 5kV at 2000m) | | |
| | 2.5 kV (50 / 60Hz, 1 min.) | | |
| | 30°C | | |
| | 10.000 operations | | |
| | 6 kA | 10 kA | 10 kA |
| | 4.5 kA | 6 kA | 7.5 kA |
| | Insulation group II, RAL 7035 | | |
| | Insulation group IIIA, black, sealable in ON/OFF positions | | |
| | Marking on toggle (I ON / 0 OFF) | | |
| | Housing: IP4X; Terminals: IP2X | | |
| | 20.000 operations | | |
| | 30 g - 2 shocks - 13 ms | | |
| | 0,35mm or 5g - 20 cycles at 5…150…5 Hz without load | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | |
| | -25 … +55°C | | |
| | -40 … +70°C | | |
| | 16 $mm^2$ / 16 $mm^2$ | | |
| | 10 $mm^2$ / 10 $mm^2$ | | |
| | 1.2 Nm | | |
| | On DIN rail 35 mm acc. to EN 60715 by fast clip | | |
| | any | | |
| | optional (supply from top/bottom) | | |
| | 85 x 68.9 x 17.6 mm | | |
| | ca. 110 g | | |
| | Yes | | |
| | Yes | | |
| | Yes (with coupling interface) | | |
| | Yes (with coupling interface) | | |

# MCBs
# SN 201 L series 4500 B and C characteristic






SN 201 L

## SN 201 L - B characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

**Applications: residential.**

**Standard: IEC/EN 60898**

**Icn: 4.5 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 2 | 087366 | SN201LB2 | 2CSS245101R0025 | | 0.110 | 6 |
| | 4 | 087465 | SN201LB4 | 2CSS245101R0045 | | 0.110 | 6 |
| | 6 | 087564 | SN201LB6 | 2CSS245101R0065 | | 0.110 | 6 |
| | 10 | 087663 | SN201LB10 | 2CSS245101R0105 | | 0.110 | 6 |
| | 16 | 087762 | SN201LB16 | 2CSS245101R0165 | | 0.110 | 6 |
| | 20 | 087861 | SN201LB20 | 2CSS245101R0205 | | 0.110 | 6 |
| | 25 | 087960 | SN201LB25 | 2CSS245101R0255 | | 0.110 | 6 |
| | 32 | 088066 | SN201LB32 | 2CSS245101R0325 | | 0.110 | 6 |
| | 40 | 088165 | SN201LB40 | 2CSS245101R0405 | | 0.110 | 6 |

## SN 201 L - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

**Applications: residential.**

**Standard: IEC/EN 60898**

**Icn: 4.5 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 2 | 088264 | SN201LC2 | 2CSS245101R0024 | | 0.110 | 6 |
| | 4 | 088363 | SN201LC4 | 2CSS245101R0044 | | 0.110 | 6 |
| | 6 | 088462 | SN201LC6 | 2CSS245101R0064 | | 0.110 | 6 |
| | 10 | 088561 | SN201LC10 | 2CSS245101R0104 | | 0.110 | 6 |
| | 16 | 088660 | SN201LC16 | 2CSS245101R0164 | | 0.110 | 6 |
| | 20 | 088769 | SN201LC20 | 2CSS245101R0204 | | 0.110 | 6 |
| | 25 | 088868 | SN201LC25 | 2CSS245101R0254 | | 0.110 | 6 |
| | 32 | 088967 | SN201LC32 | 2CSS245101R0324 | | 0.110 | 6 |
| | 40 | 089063 | SN201LC40 | 2CSS245101R0404 | | 0.110 | 6 |

**Where to find more:**
Coordination tables for SN 201 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for SN 201 MCBs p.4/13
Accessories for SN 201 MCBs p.4/37
Busbar systems p.4/25

# MCBs
# SN 201 series 6000 B and C characteristic




SN 201



## SN 201 - B characteristic

Function: overload and short-circuits protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

**Applications: residential and commercial.**

**Standard: IEC/EN 60898**

**Icn: 6 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 6 | 090762 | SN201B6 | 2CSS255101R0065 | | 0.110 | 6 |
| | 10 | 090861 | SN201B10 | 2CSS255101R0105 | | 0.110 | 6 |
| | 16 | 090960 | SN201B16 | 2CSS255101R0165 | | 0.110 | 6 |
| | 20 | 091066 | SN201B20 | 2CSS255101R0205 | | 0.110 | 6 |
| | 25 | 091165 | SN201B25 | 2CSS255101R0255 | | 0.110 | 6 |
| | 32 | 091264 | SN201B32 | 2CSS255101R0325 | | 0.110 | 6 |
| | 40 | 091363 | SN201B40 | 2CSS255101R0405 | | 0.110 | 6 |

## SN 201 - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

**Applications: residential and commercial.**

**Standard: IEC/EN 60898**

**Icn: 6 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 2 | 091462 | SN201C2 | 2CSS255101R0024 | | 0.110 | 6 |
| | 4 | 091561 | SN201C4 | 2CSS255101R0044 | | 0.110 | 6 |
| | 6 | 091660 | SN201C6 | 2CSS255101R0064 | | 0.110 | 6 |
| | 10 | 091769 | SN201C10 | 2CSS255101R0104 | | 0.110 | 6 |
| | 13 | 091868 | SN201C13 | 2CSS255101R0134 | | 0.110 | 6 |
| | 16 | 091967 | SN201C16 | 2CSS255101R0164 | | 0.110 | 6 |
| | 20 | 092063 | SN201C20 | 2CSS255101R0204 | | 0.110 | 6 |
| | 25 | 092162 | SN201C25 | 2CSS255101R0254 | | 0.110 | 6 |
| | 32 | 092261 | SN201C32 | 2CSS255101R0324 | | 0.110 | 6 |
| | 40 | 092360 | SN201C40 | 2CSS255101R0404 | | 0.110 | 6 |

# MCBs
# SN 201 series 6000 D characteristic






SN 201

## SN 201 - D characteristic

Function: protection and control of the circuits against overloads and short-circuits in final distribution; protection for circuits which supply loads with high inrush current at the circuit closing.

**Applications: residential and commercial.**

**Standard: IEC/EN 60898**

**Icn: 6 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 6 | 092469 | SN201D6 | 2CSS255101R0061 | | 0,110 | 6 |
| | 10 | 092568 | SN201D10 | 2CSS255101R0101 | | 0,110 | 6 |
| | 16 | 092667 | SN201D16 | 2CSS255101R0161 | | 0,110 | 6 |
| | 20 | 092766 | SN201D20 | 2CSS255101R0201 | | 0,110 | 6 |
| | 25 | 092865 | SN201D25 | 2CSS255101R0251 | | 0,110 | 6 |
| | 32 | 092964 | SN201D32 | 2CSS255101R0321 | | 0,110 | 6 |
| | 40 | 093060 | SN201D40 | 2CSS255101R0401 | | 0,110 | 6 |

**Where to find more:**
Coordination tables for SN 201 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for SN 201 MCBs p.4/13
Accessories for SN 201 MCBs p.4/37
Busbar systems p.4/25

# MCBs
# SN 201 M series 10000 B and C characteristic




SN 201 M



## SN 201 M - B characteristic

Function: overloads and short-circuit protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

**Applications: residential and commercial.**

**Standard: IEC/EN 60898**

**Icn: 10 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 6 | 093152 | SN201MB6 | 2CSS275101R0065 | | 0.110 | 6 |
| | 10 | 093251 | SN201MB10 | 2CSS275101R0105 | | 0.110 | 6 |
| | 16 | 093350 | SN201MB16 | 2CSS275101R0165 | | 0.110 | 6 |
| | 20 | 093459 | SN201MB20 | 2CSS275101R0205 | | 0.110 | 6 |
| | 25 | 093558 | SN201MB25 | 2CSS275101R0255 | | 0.110 | 6 |
| | 32 | 093657 | SN201MB32 | 2CSS275101R0325 | | 0.110 | 6 |
| | 40 | 093756 | SN201MB40 | 2CSS275101R0405 | | 0.110 | 6 |

## SN 201 M - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

**Applications: residential and commercial.**

**Standard: IEC/EN 60898**

**Icn: 10 kA**

| Number of poles | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1+N | 2 | 093862 | SN201MC2 | 2CSS275101R0024 | | 0.110 | 6 |
| | 4 | 093961 | SN201MC4 | 2CSS275101R0044 | | 0.110 | 6 |
| | 6 | 094067 | SN201MC6 | 2CSS275101R0064 | | 0.110 | 6 |
| | 10 | 094166 | SN201MC10 | 2CSS275101R0104 | | 0.110 | 6 |
| | 16 | 094265 | SN201MC16 | 2CSS275101R0164 | | 0.110 | 6 |
| | 20 | 094364 | SN201MC20 | 2CSS275101R0204 | | 0.110 | 6 |
| | 25 | 094463 | SN201MC25 | 2CSS275101R0254 | | 0.110 | 6 |
| | 32 | 094562 | SN201MC32 | 2CSS275101R0324 | | 0.110 | 6 |
| | 40 | 094661 | SN201MC40 | 2CSS275101R0404 | | 0.110 | 6 |

# MCBs
## S 200 80A-100A series technical features






S 200 80-100A

| | S 200 80A-100A |
|---|---|
| **General Data** | |
| Standards | IEC/EN 60898-1, IEC/EN 60947-2 |
| Poles | 1P, 2P, 3P, 4P, 1P+N, 3P+N |
| Tripping characteristics | B, C |
| Rated current $I_n$ | 80 A, 100 A |
| Rated frequency f | 50/60 Hz |
| Rated insulation voltage Ui acc. to IEC/EN 60664-1 (VDE 0110-1) | 440 V AC |
| Overvoltage category | III |
| Pollution degree | 2 |
| **IEC/EN 60898-1 (VDE 0641-11)** | |
| Rated operational voltage $U_n$ | 1P: 230/400 V AC; 1P+N: 230 V AC; 2P, 3P, 4P, 3P+N: 400 V AC |
| Max. power frequency recovery voltage $U_{max}$ | 1P: 253/440 V AC; 1P+N: 253 V AC; 2P, 3P, 4P, 3P+N: 440 V AC |
| Min. operating voltage | 12 V AC |
| Rated short-circuit capacity $I_{cn}$ | 6 kA |
| Rated impulse withstand voltage $U_{imp}$ (1.2/50µs) | 4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m) |
| Dielectrical test voltage | 2 kV (50/60 Hz, 1 min.) |
| Reference temperature for tripping characteristics | B, C: 30 °C |
| Electrical endurance | 10,000 ops. (AC); one cycle 2 s - ON, 28 s - OFF |
| **IEC/EN 60947-2 (VDE 0660-101)** | |
| Rated operational voltage $U_e$ | 1P, 1P+N: 230 V AC; 2P, 3P, 4P, 3P+N: 400 V AC |
| Max. power frequency recovery voltage $U_{max}$ | 1P, 1P+N: 253 V AC; 2P, 3P, 4P, 3P+N: 440 V AC |
| Min. operating voltage | 12 V AC |
| Rated ultimate short-circuit breaking capacity $I_{cu}$ | 6 kA |
| Rated service short-circuit breaking capacity $I_{cs}$ | 6 kA |
| Rated impulse withstand voltage $U_{imp}$ (1.2/50 µs) | 4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m) |
| Dielectrical test voltage | 2 kV (50/60 Hz, 1 min.) |
| Reference temperature for tripping characteristics | B, C: 55 °C |
| Electrical endurance | 10,000 ops. (AC); one cycle 2 s - ON, 28 s - OFF |
| **Mechanical data** | |
| Housing | Insulation group I, RAL 7035 |
| Toggle | Insulation group II, black, sealable |
| Contact position indication | Real CPI (red ON/green OFF) |
| Protection degree acc. to DIN EN 60529 | IP20[1], IP40 in enclosure with cover |
| Mechanical endurance | 20,000 ops. |
| Shock resistance acc. to DIN EN 60068-2-27 | 25 g, 2 shocks, 13 ms |
| Vibration resistance acc. to DIN EN 60068-2-6 | 5 g, 20 cycles at 5…150…5 Hz at 0.8 $I_n$ |
| Environmental conditions (Damp heat cyclic) acc. to DIN EN 60068-2-30 | 28 cycles with 55 °C/90-96 % and 25 °C/95-100 % |
| Ambient temperature | -25 ... +55 °C |
| Storage temperature | -40 ... +70 °C |

**Where to find more:**
Coordination tables for SN 201
MCBs: Chapter 2 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S 280 MCBs p.4/50

| | S 200 80A-100A |
|---|---|
| **Installation** | |
| Terminal | Failsafe bi-directional cache clamp |
| Cross-section of conductors (top/bottom) | solid, stranded: 50 $mm^2$ / 50 $mm^2$<br>flexible: 50 $mm^2$ / 50 $mm^2$ |
| Cross-section of busbars (top/bottom) | 16 $mm^2$ / 16 $mm^2$ |
| Torque | 3.0 Nm |
| Screwdriver | Nr. 2 Pozidriv |
| Mounting | On DIN rail 35 mm acc. to EN 60715 by fast clip |
| Mounting position | any |
| Supply | any |
| **Dimensions and weight** | |
| Mounting dimensions acc. to DIN 43880 | Mounting dimension 1 |
| Pole dimensions (H x T x B) | 88.8 x 69 x 17.5 |
| Pole weight | approx. 126 g |
| **Combination with auxiliary elements** | |
| Auxiliary contact | Yes |
| Signal/auxiliary contact | Yes |
| Shunt trip | Yes |
| Unervoltage release | Yes |
| Motor Operating Device | Yes |

# MCBs
## S 200 80A-100A






S 201 80-100A




S 202 80-100A




S 203 80-100A




S 204 80-100A




S 201 80-100A NA




S 203 80-100A NA

The miniature circuit breakers of the System pro *M* compact® series S 200 provide state-of-the-art safety and comfort. They stand out due to their high performance and the wide range of accessories and approvals.

The additional electrical currents 80 A and 100 A complement the current portfolio of the System pro *M* compact® and offer maximum performance in a single module width.

- Clear contact position indication in red/green (“real CPI”)
- Unique, patented twin terminal with captive screws and an increased opening for cables up to max. 50 mm², finger-proof (IP20)
- Busbar slot in the back for best visibility during installation
- High performance in building installations and industrial applications up to 6 kA at $U_e$ = 400 V AC acc. to IEC/EN 60947-2 and IEC/EN 60898-1
- Individual product identification code
- Approved acc. to IEC/EN 60898-1 and IEC/EN 60947-2 for global use

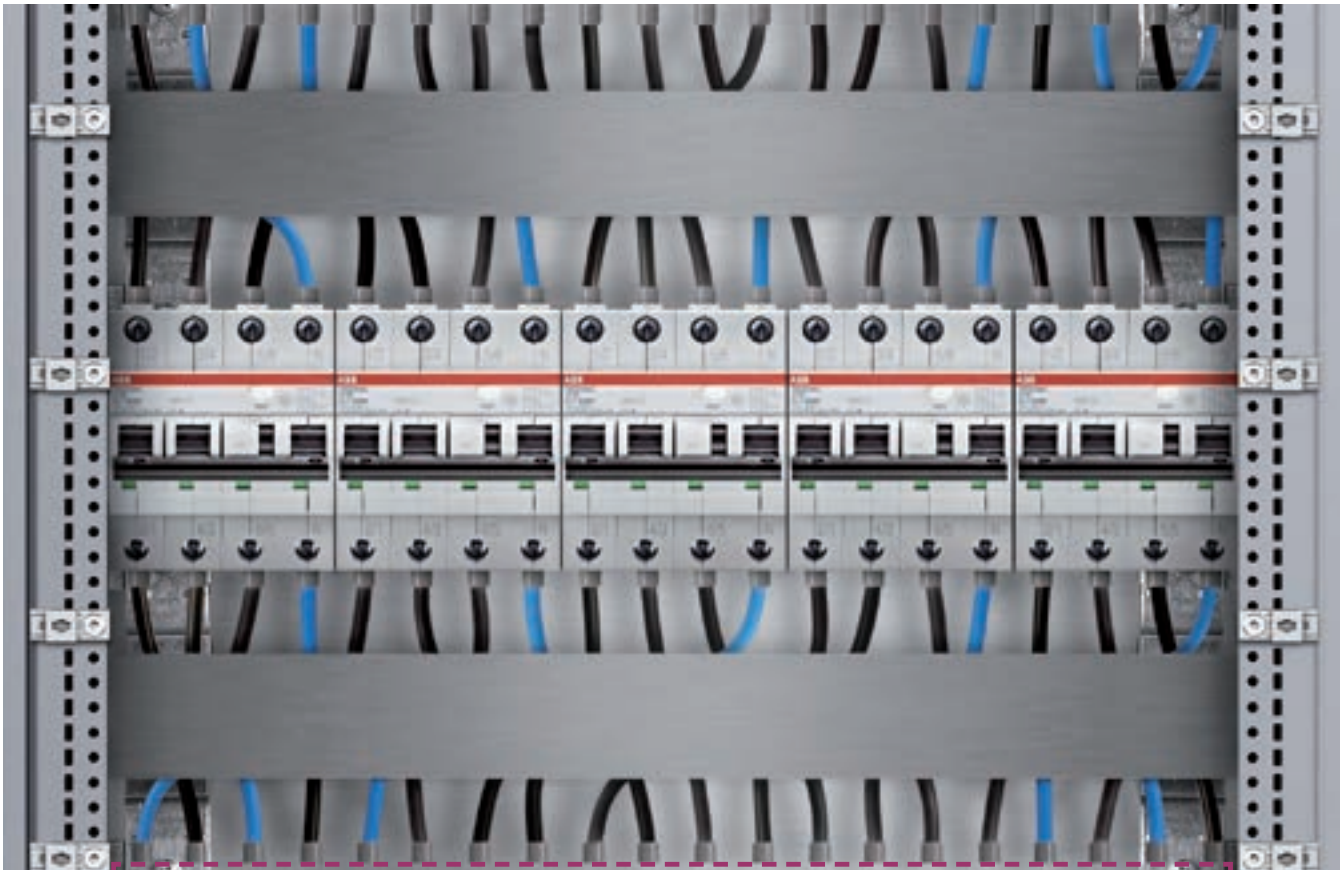
| Number of poles | Rated current In A | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| **B characteristic** | | | | | | | |
| 1 | 80 | 916516 | S201-B80 | 2CDS251001R0805 | | 0.128 | 10 |
| | 100 | 916530 | S201-B100 | 2CDS251001R0825 | | 0.128 | 10 |
| 2 | 80 | 916677 | S202-B80 | 2CDS252001R0805 | | 0.256 | 5 |
| | 100 | 916691 | S202-B100 | 2CDS252001R0825 | | 0.256 | 5 |
| 3 | 80 | 916271 | S203-B80 | 2CDS253001R0805 | | 0.384 | 1 |
| | 100 | 916295 | S203-B100 | 2CDS253001R0825 | | 0.384 | 1 |
| 4 | 80 | 916431 | S204-B80 | 2CDS254001R0805 | | 0.512 | 1 |
| | 100 | 916455 | S204-B100 | 2CDS254001R0825 | | 0.512 | 1 |
| 1+NA | 80 | 916592 | S201-B80NA | 2CDS251103R0805 | | 0.256 | 5 |
| | 100 | 916615 | S201-B100NA | 2CDS251103R0825 | | 0.256 | 5 |
| 3+NA | 80 | 916356 | S203-B80NA | 2CDS253103R0805 | | 0.512 | 1 |
| | 100 | 916370 | S203-B100NA | 2CDS253103R0825 | | 0.512 | 1 |
| **C characteristic** | | | | | | | |
| 1 | 80 | 916509 | S201-C80 | 2CDS251001R0804 | | 0.128 | 10 |
| | 100 | 916523 | S201-C100 | 2CDS251001R0824 | | 0.128 | 10 |
| 2 | 80 | 916660 | S202-C80 | 2CDS252001R0804 | | 0.256 | 5 |
| | 100 | 916684 | S202-C100 | 2CDS252001R0824 | | 0.256 | 5 |
| 3 | 80 | 916264 | S203-C80 | 2CDS253001R0804 | | 0.384 | 1 |
| | 100 | 916288 | S203-C100 | 2CDS253001R0824 | | 0.384 | 1 |
| 4 | 80 | 916424 | S204-C80 | 2CDS254001R0804 | | 0.512 | 1 |
| | 100 | 916448 | S204-C100 | 2CDS254001R0824 | | 0.512 | 1 |
| 1+NA | 80 | 916585 | S201-C80NA | 2CDS251103R0804 | | 0.256 | 5 |
| | 100 | 916608 | S201-C100NA | 2CDS251103R0824 | | 0.256 | 5 |
| 3+NA | 80 | 916349 | S203-C80NA | 2CDS253103R0804 | | 0.512 | 1 |
| | 100 | 916363 | S203-C100NA | 2CDS253103R0824 | | 0.512 | 1 |

# Minimum space, maximum protection.
# DS203NC: 3P+NRCBOs in 4 modules.



Designed to be compact, DS203NC SP+N RCBOs are suitable in all those applications where size can be an obstacle. They provide reliable and complete protection from overcurrent and earth fault currents. DS203NC RCBOS are available in two ranges with different breaking capacities to cover all the applications in commercial and industrial installations; DSZOSNC L with 4.5kA and DSZOSNC with 6kA breaking capacity according to IEC/EN 61009.
The range includes types AC, A, APR and S and tripping curves B, C or K. **www.abb.com/lowvoltage**





# SMCBs
## S750 series DR technical features





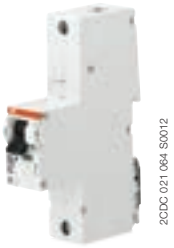

**S750 DR**

| | | | S 750 DR |
|---|---|---|---|
| General Data | Standards | | IEC/EN 60947-2 |
| | Poles | | 1P, 2P, 3P, 4P |
| | Tripping characteristics | | $E_{selective}$, $K_{selective}$ |
| | Rated current $I_n$ | A | 16…63 |
| | Rated frequency f | Hz | 50/60 |
| Electrical Data acc. to IEC/EN 60947-2 | Rated operational voltage $U_e$ | V AC | 230 (1-pole), 400 (2-, 3-, 4-pole) |
| | Rated breaking capacity $I_{cu}$ | kA | 25 |
| | Rated service breaking capacity $I_{cs}$ | kA | 12.5 |
| | Rated insulation voltage $U_i$ | V | 690 |
| | Selectivity limit current Is1 | | rated breaking capacity of downstream breaker (min.) – see selectivity tables |
| | Overvoltage category | | IV |
| | Pollution degree | | 3 |
| | Rated impulse withstand voltage $U_{imp}$ | kV | 6 |
| | Impulse withstand voltage acc. to IEC 60364-5-53 (at 2000m above sea level) | kV | 8 |
| | Impulse withstand test voltage (1.2/50µs) | kV | 9.8 |
| | Isolation function acc. to IEC 60364-5-53 | | yes |
| | Dielectric test voltage (50/60 Hz, 1 min.) | kV | 2 (50/60 Hz, 1 min.) |
| Mechanical Data | Contact position indication | | via toggle (I-ON / O-OFF), via trip indicator (red-ON / green-OFF) |
| | IP protection degree acc. to IEC/EN 60529 | | IP40 (when protected by cabinet cover) |
| | Shock resistance acc. to IEC / EN 60068-2-27 | | 25 g, min. 3 shocks, duration 13 ms |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | 2 g, 20 cycles 5…150…5 Hz |
| | Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30 | °C/RH | 28 cycles: 55 / 90…96 – 25 / 95…100 |
| | Ambient temperature | °C | -25 … +55 |
| | Storage temperature | °C | -40 … +70 |
| Installation | Wire connection (Top) | | frame terminal to connect solid and rigid stranded conductors incl. flexible conductors 2.5…50 mm² |
| | Wire connection (Bottom) | | frame terminal to connect solid and rigid stranded conductors incl. flexible conductors 2.5…50 mm² |
| | Max. torque | Nm | 2.5 … 3 |
| | Recommended Screwdriver | | slotted: 1 x 5.5, Pozidrive: PZ 2 |
| | Mounting | | DIN rail 35 mm acc. to EN 60715 |
| | Locking | | integrated blocking device, additional locking by 3 mm padlock, 1mm seal wire or cabel binder |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Size acc. to DIN 43880 | | 3 |
| | Width | mm | 27 (per pole) |
| | Pole dimensions (H x D x W) | mm | see drawings |
| | Pole weight | g | see order tables |
| Accessories | | | 3 mm padlock |

**Where to find more:**
Worldwide marks and approvals of MCBs p.15/162

# SMCBs
## S750 series DR- selective main circuit-breakers, $E_{selective}$ characteristic




2CDC 021 064 S0012

S751 DR


2CDC 021 065 S0012

S752 DR


2CDC 021 066 S0012

S753 DR


2CDC 021 067 S0012

S754 DR

### S750 series DR

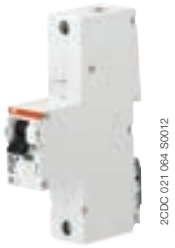
Selective main circuit-breakers of the S 750 DR series are SMCBs based on DIN VDE 0641-21 with voltage-independent operating principle. This means that they do not rely on a control circuit to make or break contact (SHU) and are therefore particularly suitable for use in energy distributionsystems with maximum availability requirements. They offer total selectivity to downstream MCB's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity.

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 16 | 4016779878968 | S751 DR-E16 | 2CDH781010R0162 | | 0.35 | 3 |
| | 20 | 4016779878975 | S751 DR-E20 | 2CDH781010R0202 | | 0.35 | 3 |
| | 25 | 4016779878982 | S751 DR-E25 | 2CDH781010R0252 | | 0.35 | 3 |
| | 32 | 4016779878999 | S751 DR-E32 | 2CDH781010R0322 | | 0.35 | 3 |
| | 40 | 4016779879019 | S751 DR-E40 | 2CDH781010R0402 | | 0.35 | 3 |
| | 50 | 4016779879026 | S751 DR-E50 | 2CDH781010R0502 | | 0.35 | 3 |
| | 63 | 4016779879033 | S751 DR-E63 | 2CDH781010R0632 | | 0.35 | 3 |
| 2 | 16 | 4016779879361 | S752 DR-E16 | 2CDH782010R0162 | | 0.7 | 2 |
| | 20 | 4016779879378 | S752 DR-E20 | 2CDH782010R0202 | | 0.7 | 2 |
| | 25 | 4016779879385 | S752 DR-E25 | 2CDH782010R0252 | | 0.7 | 2 |
| | 32 | 4016779879392 | S752 DR-E32 | 2CDH782010R0322 | | 0.7 | 2 |
| | 40 | 4016779879415 | S752 DR-E40 | 2CDH782010R0402 | | 0.7 | 2 |
| | 50 | 4016779879422 | S752 DR-E50 | 2CDH782010R0502 | | 0.7 | 2 |
| | 63 | 4016779879439 | S752 DR-E63 | 2CDH782010R0632 | | 0.7 | 2 |
| 3 | 16 | 4016779879569 | S753 DR-E16 | 2CDH783010R0162 | | 1.05 | 1 |
| | 20 | 4016779879576 | S753 DR-E20 | 2CDH783010R0202 | | 1.05 | 1 |
| | 25 | 4016779879583 | S753 DR-E25 | 2CDH783010R0252 | | 1.05 | 1 |
| | 32 | 4016779879590 | S753 DR-E32 | 2CDH783010R0322 | | 1.05 | 1 |
| | 40 | 4016779879613 | S753 DR-E40 | 2CDH783010R0402 | | 1.05 | 1 |
| | 50 | 4016779879620 | S753 DR-E50 | 2CDH783010R0502 | | 1.05 | 1 |
| | 63 | 4016779879637 | S753 DR-E63 | 2CDH783010R0632 | | 1.05 | 1 |
| 4 | 16 | 4016779879767 | S754 DR-E16 | 2CDH784010R0162 | | 1.4 | 1 |
| | 20 | 4016779879774 | S754 DR-E20 | 2CDH784010R0202 | | 1.4 | 1 |
| | 25 | 4016779879781 | S754 DR-E25 | 2CDH784010R0252 | | 1.4 | 1 |
| | 32 | 4016779879798 | S754 DR-E32 | 2CDH784010R0322 | | 1.4 | 1 |
| | 40 | 4016779879811 | S754 DR-E40 | 2CDH784010R0402 | | 1.4 | 1 |
| | 50 | 4016779879828 | S754 DR-E50 | 2CDH784010R0502 | | 1.4 | 1 |
| | 63 | 4016779879835 | S754 DR-E63 | 2CDH784010R0632 | | 1.4 | 1 |

Due to the lack of international product standards for SMCB, S750DR products as given in this catalogue are certified acc. to IEC/EN 60947-2. If requested, S750 (for 40mm busbar systems) and S750DR (for DIN rail mounting) are also available with a certification based on a German SMCB standard. Please contact your ABB office for further information .

# SMCBs
## S750 DR series - selective main circuit-breakers, $K_{selective}$ characteristic






**S751 DR**




**S752 DR**




**S753 DR**




**S754 DR**

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 16 | 4016779879064 | S751 DR-K16 | 2CDH781010R0467 | | 0.35 | 3 |
| | 20 | 4016779879071 | S751 DR-K20 | 2CDH781010R0487 | | 0.35 | 3 |
| | 25 | 4016779879088 | S751 DR-K25 | 2CDH781010R0517 | | 0.35 | 3 |
| | 32 | 4016779879095 | S751 DR-K32 | 2CDH781010R0537 | | 0.35 | 3 |
| | 40 | 4016779879118 | S751 DR-K40 | 2CDH781010R0557 | | 0.35 | 3 |
| | 50 | 4016779879125 | S751 DR-K50 | 2CDH781010R0577 | | 0.35 | 3 |
| | 63 | 4016779879132 | S751 DR-K63 | 2CDH781010R0607 | | 0.35 | 3 |
| 2 | 16 | 4016779879460 | S752 DR-K16 | 2CDH782010R0467 | | 0.7 | 2 |
| | 20 | 4016779879477 | S752 DR-K20 | 2CDH782010R0487 | | 0.7 | 2 |
| | 25 | 4016779879484 | S752 DR-K25 | 2CDH782010R0517 | | 0.7 | 2 |
| | 32 | 4016779879491 | S752 DR-K32 | 2CDH782010R0537 | | 0.7 | 2 |
| | 40 | 4016779879514 | S752 DR-K40 | 2CDH782010R0557 | | 0.7 | 2 |
| | 50 | 4016779879521 | S752 DR-K50 | 2CDH782010R0577 | | 0.7 | 2 |
| | 63 | 4016779879538 | S752 DR-K63 | 2CDH782010R0607 | | 0.7 | 2 |
| 3 | 16 | 4016779879668 | S753 DR-K16 | 2CDH783010R0467 | | 1.05 | 1 |
| | 20 | 4016779879675 | S753 DR-K20 | 2CDH783010R0487 | | 1.05 | 1 |
| | 25 | 4016779879682 | S753 DR-K25 | 2CDH783010R0517 | | 1.05 | 1 |
| | 32 | 4016779879699 | S753 DR-K32 | 2CDH783010R0537 | | 1.05 | 1 |
| | 40 | 4016779879712 | S753 DR-K40 | 2CDH783010R0557 | | 1.05 | 1 |
| | 50 | 4016779879729 | S753 DR-K50 | 2CDH783010R0577 | | 1.05 | 1 |
| | 63 | 4016779879736 | S753 DR-K63 | 2CDH783010R0607 | | 1.05 | 1 |
| 4 | 16 | 4016779879866 | S754 DR-K16 | 2CDH784010R0467 | | 1.4 | 1 |
| | 20 | 4016779879873 | S754 DR-K20 | 2CDH784010R0487 | | 1.4 | 1 |
| | 25 | 4016779879880 | S754 DR-K25 | 2CDH784010R0517 | | 1.4 | 1 |
| | 32 | 4016779879897 | S754 DR-K32 | 2CDH784010R0537 | | 1.4 | 1 |
| | 40 | 4016779879910 | S754 DR-K40 | 2CDH784010R0557 | | 1.4 | 1 |
| | 50 | 4016779879927 | S754 DR-K50 | 2CDH784010R0577 | | 1.4 | 1 |
| | 63 | 4016779879934 | S754 DR-K63 | 2CDH784010R0607 | | 1.4 | 1 |

**Where to find more:**
Worldwide marks and approvals of MCBs p.15/162

# SMCBs
## S700 series technical features



S700



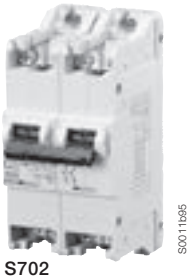
| | | | S 700 |
|---|---|---|---|
| General Data | Standards | | E DIN VDE 0645:2003-09, |
| | | | partly acc. to IEC EN 60947-2 |
| | Poles | | 1P, 2P, 3P, 4P |
| | Tripping characteristics | | $E_{selective}$, $K_{selective}$ |
| | thermal tripping | | 1.05 … 1.2 x In |
| | short-time delayed tripping | | E: 5 … 6.25 x In |
| | | | K: 10 … 14 x In (≤ 50 A), 8 …12 x In (≥ 63 A) |
| | minimum tripping delay | ms | 10 |
| | Rated insulation voltage Ui acc.to IEC/EN 60664-1 | V AC | 690 |
| | Rated current $I_n$ | A | E: 10…100; K: 16…100 |
| | Rated frequency f | Hz | 50 / 60 |
| Electrical Data | Rated operational voltage $U^n$ | V AC | 1P: 230 / 400; 2…4P: 400 |
| | Rated breaking capacity $I^{cn}$ | kA | 25 |
| | Selectivity limit current Is1 | | Rated breaking capactiy of the downstream MCB (see selectivity tables) |
| | Overvoltage category | | IV |
| | Pollution degree | | 3 |
| | Rated impulse withstand voltage $U_{imp}$ | kV | 6 |
| | Impulse withstand voltage acc. to IEC 60364-5-53, clause 536.2 (at 2000m over sea level) | kV | 8 |
| | Impulse withstand test voltage (1.2/50µs) at sea level | | |
| | new condition | kV | 12.3 |
| | after use | kV | 9.8 |
| | Isolation function acc. to IEC 60364-5-53 | | yes |
| | Dielectric test voltage (50/60 Hz, 1 min.) | kV | 2 |
| Mechanical Data | Contact position indication | | Toggle (I ON / 0 OFF); Real CPI (red ON / green OFF) |
| | IP protection degree acc. to IEC/EN 60529 | | IP40 (in enclosure with cover, cut-out dimension 46mm) |
| | Mechanical switching cycles | | |
| | without load | ops. | 1000 |
| | with rated current | ops. | 1000 |
| | Shock resistance acc. to IEC/EN 60068-2-27 | | 25 g - 3 shocks - 13 ms |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | 2 g, 20 cycles 5…150…5Hz |
| | Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30 | °C/RH | 28 cycles: 55°C/90…96% - 25°C/95…100% |
| | Ambient temperature | °C | -25 … +55 |
| | Storage temperature | °C | -40 … +70 |
| Installation | Terminal type | | Saddle terminal |
| | Terminal size top / bottom | $mm^2$ | Capable to connect solid and rigid stranded conductors incl. flexible conductors 2.5…50 / 70 |
| | Terminal screws tighning torque | Nm | 3…3.5 |
| | Max. torque for surface mounting | Nm | 2.5 … 3 (only fl at-headed screws, no circlips) |
| | Recommended screwdriver | | Slot: 1 x 5.5, cross slot: PZ 2 |
| | Mounting | | Surface mounting with 2 screws, DIN rail mounting (35 mm DIN rail acc. to EN 60715, 40 mm busbar systems 4/5-pole, 5/10 mm x 12 mm) |
| | Mounting position | | any |
| | Supply side/load side | | any |
| Dimensions and weight | Size acc. to DIN 43880 | | 5 (mounting on DIN-Rail); 6 (mounting on busbar) |
| | Width | | 2 modules / pole |
| | Pole dimensions (H x D x W) | | see drawings |
| | Pole weight | | see order tables |
| Accessories | | | Optional: version with factory assembled auxiliary switch (2 change-over contacts)<br>Terminal covers<br>Handle covers<br>Busbar adapters<br>DIN rail adapters<br>Locking devices |

# SMCBs
# S700 series 25000 - selective main circuit-breakers, $E_{selective}$ characteristic






**S701**




**S702**

## S700 E characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.
The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch.

| Number of poles | Rated current | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 522507 | S701-E10 | GHS7015001R0449 | | 0.55 | 3 |
| | 16 | 522705 | S701-E16 | GHS7015001R0469 | | 0.55 | 3 |
| | 20 | 522903 | S701-E20 | GHS7015001R0489 | | 0.55 | 3 |
| | 25 | 523108 | S701-E25 | GHS7015001R0519 | | 0.55 | 3 |
| | 32 | 523207 | S701-E32 | GHS7015001R0529 | | 0.55 | 3 |
| | 35 | 523405 | S701-E35 | GHS7015001R0539 | | 0.55 | 3 |
| | 40 | 523603 | S701-E40 | GHS7015001R0559 | | 0.55 | 3 |
| | 50 | 523801 | S701-E50 | GHS7015001R0579 | | 0.55 | 3 |
| | 63 | 524006 | S701-E63 | GHS7015001R0599 | | 0.55 | 3 |
| | 80 | 524204 | S701-E80 | GHS7015001R0629 | | 0.55 | 3 |
| | 100 | 524402 | S701-E100 | GHS7015001R0639 | | 0.55 | 3 |

| Number of poles | Rated current | Bbn 40 16779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 16 | 105200 | S702-E16 | GHS7025001R0469 | | 1.1 | 2 |
| | 20 | 949007 ① | S702-E20 | GHS7025001R0489 | | 1.1 | 2 |
| | 25 | 104005 | S702-E25 | GHS7025001R0519 | | 1.1 | 2 |
| | 32 | 105408 | S702-E32 | GHS7025001R0529 | | 1.1 | 2 |
| | 35 | 105309 | S702-E35 | GHS7025001R0539 | | 1.1 | 2 |
| | 40 | 105507 | S702-E40 | GHS7025001R0559 | | 1.1 | 2 |
| | 50 | 105606 | S702-E50 | GHS7025001R0579 | | 1.1 | 2 |
| | 63 | 052009 | S702-E63 | GHS7025001R0599 | | 1.1 | 2 |
| | 80 | 109604 | S702-E80 | GHS7025001R0629 | | 1.1 | 2 |
| | 100 | 062503 | S702-E100 | GHS7025001R0639 | | 1.1 | 2 |

① bbn-Nr. 40 12233

**Where to find more:**
Selectivity coordination tables for S 700 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S 700 MCBs p.4/55

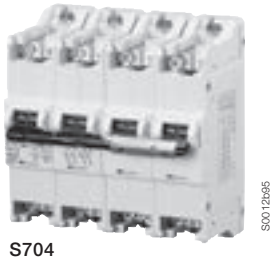
# SMCBs
## S700 series 25000 - selective main circuit-breakers, $E_{selective}$ characteristic






S703

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 16 | 865703 | S703-E16 | GHS7035001R0469 | | 1.65 | 1 |
| | 20 | 526307 | S703-E20 | GHS7035001R0489 | | 1.65 | 1 |
| | 25 | 526505 | S703-E25 | GHS7035001R0519 | | 1.65 | 1 |
| | 32 | 526604 | S703-E32 | GHS7035001R0529 | | 1.65 | 1 |
| | 35 | 526802 | S703-E35 | GHS7035001R0539 | | 1.65 | 1 |
| | 40 | 527007 | S703-E40 | GHS7035001R0559 | | 1.65 | 1 |
| | 50 | 527205 | S703-E50 | GHS7035001R0579 | | 1.65 | 1 |
| | 63 | 527403 | S703-E63 | GHS7035001R0599 | | 1.65 | 1 |
| | 80 | 527601 | S703-E80 | GHS7035001R0629 | | 1.65 | 1 |
| | 100 | 527809 | S703-E100 | GHS7035001R0639 | | 1.65 | 1 |




S704

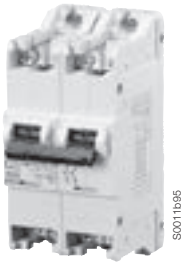
| Number of poles | Rated current In A | Bbn 40 16779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 16 | 110600 | S704-E16 | GHS7045001R0469 | | 2.2 | 1 |
| | 20 | 110709 | S704-E20 | GHS7045001R0489 | | 2.2 | 1 |
| | 25 | 104104 | S704-E25 | GHS7045001R0519 | | 2.2 | 1 |
| | 32 | 110808 | S704-E32 | GHS7045001R0529 | | 2.2 | 1 |
| | 35 | 104203 | S704-E35 | GHS7045001R0539 | | 2.2 | 1 |
| | 40 | 110907 | S704-E40 | GHS7045001R0559 | | 2.2 | 1 |
| | 50 | 111003 | S704-E50 | GHS7045001R0579 | | 2.2 | 1 |
| | 63 | 111102 | S704-E63 | GHS7045001R0599 | | 2.2 | 1 |
| | 80 | 111201 | S704-E80 | GHS7045001R0629 | | 2.2 | 1 |
| | 100 | 062602 | S704-E100 | GHS7045001R0639 | | 2.2 | 1 |

# SMCBs
# S700 series 25000 - selective main circuit-breakers, $K_{selective}$ characteristic






S701




S702

## S700 K characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.
The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch.

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 16 | 522606 | S701-K16 | GHS7015001R0467 | | 0.55 | 3 |
| | 20 | 522804 | S701-K20 | GHS7015001R0487 | | 0.55 | 3 |
| | 25 | 523009 | S701-K25 | GHS7015001R0517 | | 0.55 | 3 |
| | 35 | 523306 | S701-K35 | GHS7015001R0537 | | 0.55 | 3 |
| | 40 | 523504 | S701-K40 | GHS7015001R0557 | | 0.55 | 3 |
| | 50 | 523702 | S701-K50 | GHS7015001R0577 | | 0.55 | 3 |
| | 63 | 523900 | S701-K63 | GHS7015001R0597 | | 0.55 | 3 |
| | 80 | 524105 | S701-K80 | GHS7015001R0627 | | 0.55 | 3 |
| | 100 | 524303 | S701-K100 | GHS7015001R0637 | | 0.55 | 3 |

| Number of poles | Rated current In A | Bbn 40 16779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 16 | 109802 | S702-K16 | GHS7025001R0467 | | 1.1 | 2 |
| | 20 | 109703 | S702-K20 | GHS7025001R0487 | | 1.1 | 2 |
| | 25 | 109901 | S702-K25 | GHS7025001R0517 | | 1.1 | 2 |
| | 35 | 110006 | S702-K35 | GHS7025001R0537 | | 1.1 | 2 |
| | 40 | 110105 | S702-K40 | GHS7025001R0557 | | 1.1 | 2 |
| | 50 | 110204 | S702-K50 | GHS7025001R0577 | | 1.1 | 2 |
| | 63 | 110303 | S702-K63 | GHS7025001R0597 | | 1.1 | 2 |
| | 80 | 110402 | S702-K80 | GHS7025001R0627 | | 1.1 | 2 |
| | 100 | 110501 | S702-K100 | GHS7025001R0637 | | 1.1 | 2 |

**Where to find more:**
Selectivity coordination tables for S 700 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

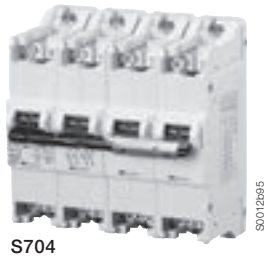
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Auxiliary elements for S 700 MCBs p.4/55

# SMCBs
## S700 series 25000 - selective main circuit-breakers, $K_{selective}$ characteristic




**S703**

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 16 | 526109 | S703-K16 | GHS7035001R0467 | | 1.65 | 1 |
| | 20 | 526208 | S703-K20 | GHS7035001R0487 | | 1.65 | 1 |
| | 25 | 526406 | S703-K25 | GHS7035001R0517 | | 1.65 | 1 |
| | 35 | 526703 | S703-K35 | GHS7035001R0537 | | 1.65 | 1 |
| | 40 | 526901 | S703-K40 | GHS7035001R0557 | | 1.65 | 1 |
| | 50 | 527106 | S703-K50 | GHS7035001R0577 | | 1.65 | 1 |
| | 63 | 527304 | S703-K63 | GHS7035001R0597 | | 1.65 | 1 |
| | 80 | 527502 | S703-K80 | GHS7035001R0627 | | 1.65 | 1 |
| | 100 | 527700 | S703-K100 | GHS7035001R0637 | | 1.65 | 1 |




**S704**

| Number of poles | Rated current In A | Bbn 40 16779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 16 | 111300 | S704-K16 | GHS7045001R0467 | | 2.2 | 1 |
| | 20 | 111409 | S704-K20 | GHS7045001R0487 | | 2.2 | 1 |
| | 25 | 111508 | S704-K25 | GHS7045001R0517 | | 2.2 | 1 |
| | 35 | 111607 | S704-K35 | GHS7045001R0537 | | 2.2 | 1 |
| | 40 | 111706 | S704-K40 | GHS7045001R0557 | | 2.2 | 1 |
| | 50 | 965205 ① | S704-K50 | GHS7045001R0577 | | 2.2 | 1 |
| | 63 | 955503 ① | S704-K63 | GHS7045001R0597 | | 2.2 | 1 |
| | 80 | 111805 | S704-K80 | GHS7045001R0627 | | 2.2 | 1 |
| | 100 | 111904 | S704-K100 | GHS7045001R0637 | | 2.2 | 1 |

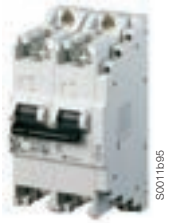
① bbn-Nr. 40 12233

# SMCBs
## S700 series 25000 - selective main circuit-breakers, $E_{selective}$ characteristic + H2WR






S701 + H2WR




S702 + H2WR

### S700 E characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.
The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch (H2WR).

### With factory assembled auxiliary switch (2 change-over contacts)

| Number of poles | Rated current | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 16 | 456609 | S701-E16+H2WR | GHS7010316R0469 | | 0.65 | 3 |
| | 20 | 456708 | S701-E20+H2WR | GHS7010316R0489 | | 0.65 | 3 |
| | 25 | 456807 | S701-E25+H2WR | GHS7010316R0519 | | 0.65 | 3 |
| | 32 | 456906 | S701-E32+H2WR | GHS7010316R0529 | | 0.65 | 3 |
| | 35 | 457002 | S701-E35+H2WR | GHS7010316R0539 | | 0.65 | 3 |
| | 40 | 457101 | S701-E40+H2WR | GHS7010316R0559 | | 0.65 | 3 |
| | 50 | 457200 | S701-E50+H2WR | GHS7010316R0579 | | 0.65 | 3 |
| | 63 | 457309 | S701-E63+H2WR | GHS7010316R0599 | | 0.65 | 3 |
| | 80 | 457408 | S701-E80+H2WR | GHS7010316R0629 | | 0.65 | 3 |
| | 100 | 457507 | S701-E100+H2WR | GHS7010316R0639 | | 0.65 | 3 |

| Number of poles | Rated current | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 16 | 458405 | S702-E16+H2WR | GHS7020316R0469 | | 1.2 | 2 |
| | 20 | 458504 | S702-E20+H2WR | GHS7020316R0489 | | 1.2 | 2 |
| | 25 | 458603 | S702-E25+H2WR | GHS7020316R0519 | | 1.2 | 2 |
| | 32 | 458702 | S702-E32+H2WR | GHS7020316R0529 | | 1.2 | 2 |
| | 35 | 458801 | S702-E35+H2WR | GHS7020316R0539 | | 1.2 | 2 |
| | 40 | 458900 | S702-E40+H2WR | GHS7020316R0559 | | 1.2 | 2 |
| | 50 | 459006 | S702-E50+H2WR | GHS7020316R0579 | | 1.2 | 2 |
| | 63 | 459105 | S702-E63+H2WR | GHS7020316R0599 | | 1.2 | 2 |
| | 80 | 459204 | S702-E80+H2WR | GHS7020316R0629 | | 1.2 | 2 |
| | 100 | 459303 | S702-E100+H2WR | GHS7020316R0639 | | 1.2 | 2 |

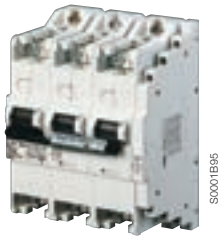
**Where to find more:**
Selectivity coordination tables for S 700 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
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# SMCBs

## S700 series 25000 - selective main circuit-breakers, $E_{selective}$ characteristic + H2WR




S703 + H2WR

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 16 | 460200 | S703-E16+H2WR | GHS7030316R0469 | | 1.75 | 1 |
| | 20 | 460309 | S703-E20+H2WR | GHS7030316R0489 | | 1.75 | 1 |
| | 25 | 460408 | S703-E25+H2WR | GHS7030316R0519 | | 1.75 | 1 |
| | 32 | 460507 | S703-E32+H2WR | GHS7030316R0529 | | 1.75 | 1 |
| | 35 | 460606 | S703-E35+H2WR | GHS7030316R0539 | | 1.75 | 1 |
| | 40 | 460705 | S703-E40+H2WR | GHS7030316R0559 | | 1.75 | 1 |
| | 50 | 460804 | S703-E50+H2WR | GHS7030316R0579 | | 1.75 | 1 |
| | 63 | 460903 | S703-E63+H2WR | GHS7030316R0599 | | 1.75 | 1 |
| | 80 | 461009 | S703-E80+H2WR | GHS7030316R0629 | | 1.75 | 1 |
| | 100 | 461108 | S703-E100+H2WR | GHS7030316R0639 | | 1.75 | 1 |




S704 + H2WR

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 16 | 462006 | S704-E16+H2WR | GHS7040316R0469 | | 2.3 | 1 |
| | 20 | 462105 | S704-E20+H2WR | GHS7040316R0489 | | 2.3 | 1 |
| | 25 | 462204 | S704-E25+H2WR | GHS7040316R0519 | | 2.3 | 1 |
| | 32 | 462303 | S704-E32+H2WR | GHS7040316R0529 | | 2.3 | 1 |
| | 35 | 462402 | S704-E35+H2WR | GHS7040316R0539 | | 2.3 | 1 |
| | 40 | 462501 | S704-E40+H2WR | GHS7040316R0559 | | 2.3 | 1 |
| | 50 | 462600 | S704-E50+H2WR | GHS7040316R0579 | | 2.3 | 1 |
| | 63 | 462709 | S704-E63+H2WR | GHS7040316R0599 | | 2.3 | 1 |
| | 80 | 462808 | S704-E80+H2WR | GHS7040316R0629 | | 2.3 | 1 |
| | 100 | 462907 | S704-E100+H2WR | GHS7040316R0639 | | 2.3 | 1 |

# SMCBs
# S700 series 25000 - selective main circuit-breakers, $K_{selective}$ characteristic + H2WR






S701 + H2WR




S702 + H2WR

## S700 K characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.
The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch (H2WR).

## With factory assembled auxiliary switch (2 change-over contacts)

| Number of poles | Rated current | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 16 | 455800 | S701-K16+H2WR | GHS7010316R0467 | | 0.65 | 3 |
| | 20 | 455909 | S701-K20+H2WR | GHS7010316R0487 | | 0.65 | 3 |
| | 25 | 456005 | S701-K25+H2WR | GHS7010316R0517 | | 0.65 | 3 |
| | 35 | 456104 | S701-K35+H2WR | GHS7010316R0537 | | 0.65 | 3 |
| | 40 | 456203 | S701-K40+H2WR | GHS7010316R0557 | | 0.65 | 3 |
| | 50 | 456302 | S701-K50+H2WR | GHS7010316R0577 | | 0.65 | 3 |
| | 63 | 456401 | S701-K63+H2WR | GHS7010316R0597 | | 0.65 | 3 |
| | 80 | 499651 | S701-K80+H2WR | GHS7010316R0627 | | 0.65 | 3 |
| | 100 | 499729 | S701-K100+H2WR | GHS7010316R0637 | | 0.65 | 3 |

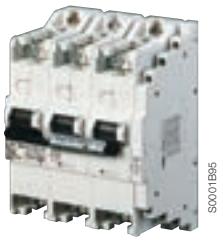
| Number of poles | Rated current | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 16 | 457606 | S702-K16+H2WR | GHS7020316R0467 | | 1.2 | 2 |
| | 20 | 457705 | S702-K20+H2WR | GHS7020316R0487 | | 1.2 | 2 |
| | 25 | 457804 | S702-K25+H2WR | GHS7020316R0517 | | 1.2 | 2 |
| | 35 | 457903 | S702-K35+H2WR | GHS7020316R0537 | | 1.2 | 2 |
| | 40 | 458009 | S702-K40+H2WR | GHS7020316R0557 | | 1.2 | 2 |
| | 50 | 458108 | S702-K50+H2WR | GHS7020316R0577 | | 1.2 | 2 |
| | 63 | 458207 | S702-K63+H2WR | GHS7020316R0597 | | 1.2 | 2 |
| | 80 | 499750 | S702-K80+H2WR | GHS7020316R0627 | | 1.2 | 2 |
| | 100 | 499767 | S702-K100+H2WR | GHS7020316R0637 | | 1.2 | 2 |

**Where to find more:**
Selectivity coordination tables for S 700 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S 700 MCBs p.4/55

# SMCBs
## S700 series 25000 - selective main circuit-breakers, $K_{selective}$ characteristic + H2WR




S703 + H2WR

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 16 | 459402 | S703-K16+H2WR | GHS7030316R0467 | | 1.75 | 1 |
| | 20 | 459501 | S703-K20+H2WR | GHS7030316R0487 | | 1.75 | 1 |
| | 25 | 459600 | S703-K25+H2WR | GHS7030316R0517 | | 1.75 | 1 |
| | 35 | 459709 | S703-K35+H2WR | GHS7030316R0537 | | 1.75 | 1 |
| | 40 | 459808 | S703-K40+H2WR | GHS7030316R0557 | | 1.75 | 1 |
| | 50 | 459907 | S703-K50+H2WR | GHS7030316R0577 | | 1.75 | 1 |
| | 63 | 460002 | S703-K63+H2WR | GHS7030316R0597 | | 1.75 | 1 |
| | 80 | 499774 | S703-K80+H2WR | GHS7030316R0627 | | 1.75 | 1 |
| | 100 | 499781 | S703-K100+H2WR | GHS7030316R0637 | | 1.75 | 1 |




S704 + H2WR

| Number of poles | Rated current In A | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 16 | 461207 | S704-K16+H2WR | GHS7040316R0467 | | 2.3 | 1 |
| | 20 | 461306 | S704-K20+H2WR | GHS7040316R0487 | | 2.3 | 1 |
| | 25 | 461405 | S704-K25+H2WR | GHS7040316R0517 | | 2.3 | 1 |
| | 35 | 461504 | S704-K35+H2WR | GHS7040316R0537 | | 2.3 | 1 |
| | 40 | 461603 | S704-K40+H2WR | GHS7040316R0557 | | 2.3 | 1 |
| | 50 | 461702 | S704-K50+H2WR | GHS7040316R0577 | | 2.3 | 1 |
| | 63 | 461801 | S704-K63+H2WR | GHS7040316R0597 | | 2.3 | 1 |
| | 80 | 499798 | S704-K80+H2WR | GHS7040316R0627 | | 2.3 | 1 |
| | 100 | 499804 | S704-K100+H2WR | GHS7040316R0637 | | 2.3 | 1 |

# SMCBs
## Selective short-circuit current limiter WT63






WT63




WT63-3 HS

### WT63 characteristic

WT63 is a short-circuit current limiter for 690 V AC applications.
In combination with other ABB devices WT63 offers smart solutions for coordinated motor protection according to IEC/EN 60947-4-1. As a main limiting device, WT63 can increase the short-circuit breaking capability for several groups of motor circuits to high values at 690 V AC.
For further information according to selection and installation see the coordination table.

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 63 | 510677 | WT63-3 | 2CDH103012R0599 | | 1.65 | 1 |

with factory assembled auxiliary switch (2 change-over contacts)

| Number of poles | Rated current | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 63 | 510684 | WT63-3HS | 2CDH103816R0599 | | 1.75 | 1 |

# New DS202C.
# Protection with unrivalled compactness.



With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50% of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro *M* compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.
**www.abb.com**



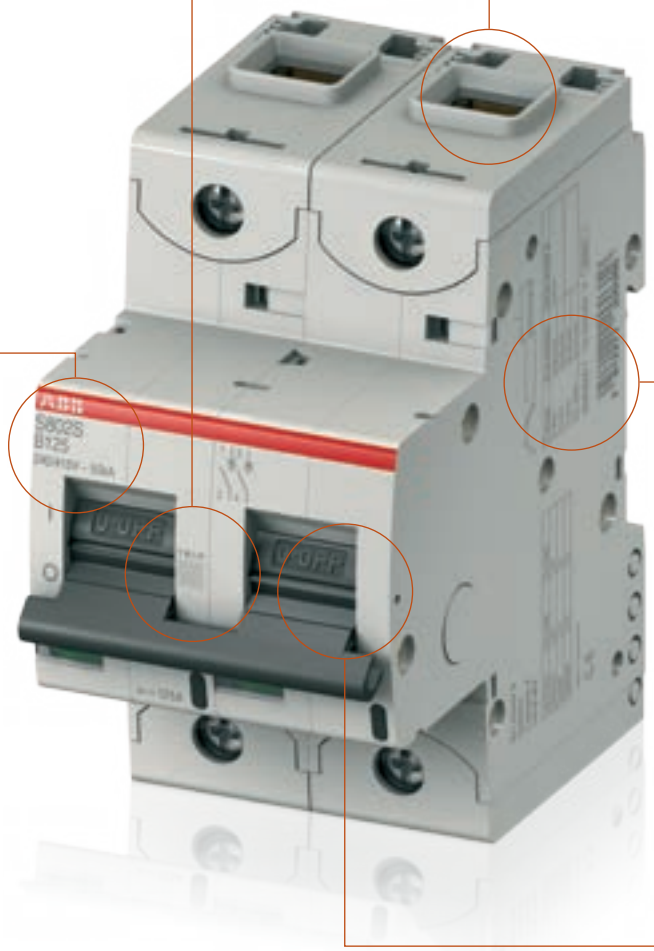


# High Performance MCB S800
## Incomparable performances



Interchangeable terminal, failsafe cage or ring lug terminal

Clear identification of the reason of cut-off thanks to TRIP position of the toggle



Easy product name, easy identification, easy life.

Quick identification of technical characteristics thanks to laser-printing of all data

Clear identification of the moving contact position thanks to toggle identification ON, OFF and TRIP position



**Housing materials**
In the S800 range of MCBs for traction, specific materials are used that are classified with an hazard level R26/HL3 according to EN 45545-2. Plastic materials are also classified I2-F3 according the NF F 16-101/102 (“Railway Rolling Stock Fire Behavior- Choice of Materials„ and “Railway Rolling Stock Fire Behavior- Choice of Materials, Application to Electrical Equipment„) thus responding to exigency 3.



**Shock and vibration resistance**
Additionally to the high quality standards and the fl ammability requirements, rail applications have specifi c demands that have to be to fulfi lled like resistance to shocks and vibrations. The resistance to vibrations and shocks of S800 has been positively tested according to: IEC 61373 – 2010 – 05 Edition 2.0 Rolling stock equipment – Shock and vibration tests considering Category 1, Class A and Class B.



**Play it safe: display the operational state**
The mechanical drive of the S800 high performance MCB is equipped with a trip-free release. The trip position display thereby always reliably displays the exact position of the moving contact. The trip position provides additional trip detection allowing to easily identify the reason for the cut-off. The switch lever moves to the middle position in case of thermal or magnetic tripping.



**Cage and ring terminals**
The S800 standard equipment with interchangeable terminal adapter for wires, cables and rigid conductors guarantees a high level of flexibility and comfort. Fast and safe connection of the conductors is ensured by the “onboard terminal shutter” integrated into the body of the terminal, thereby preventing incorrect underclamping of the connections.



**Reliable: the disconnector properties**
In OFF position (0 position), the S800 high performance MCB guarantees safe electrical isolation of the circuit compliant to IEC 60947-2.



**Wide range of accessories**
S800 MCB range is completed with a wide range of accessories that enlarge the functions of the MCB not only as a protection devices, but even for control and monitor remotely the installation. The range of accessories include auxiliary contacts, aux/signal contacts, remote switching unit, short circuit limiter, shunt operation releases, undervoltage releases and busbars.

# MCBs
## S800 series technical features






S800

| Tripping characteristics | | S800S<br>B, C, D, K | S803S-KM<br>KM |
|---|---|---|---|
| Standards | | IEC/EN 60947-2,<br>IEC/EN 60898-1 | IEC/EN 60947-2 |
| Poles | | 1 … 4 | 3 |
| Rated current $I_e$ | A | 6 … 125 | 20 … 80 |
| Rated frequency **f** | Hz | 50/60 | 50/60 |
| Rated insulation voltage $U_i$<br>acc. to IEC/EN 60664-1 | V | AC 690 | AC 690 |
| Rated impulse withstand<br>voltage $U_{imp}$ (1.2/50µs) | kV | 8 | 8 |
| Overvoltage category | | IV | IV |
| Pollution degree | | 3 | 3 |
| Suitability for isolation | | yes | yes |
| **Data acc. to IEC/EN 60898-1** | | | |
| Rated operational voltage $U_e$ | V | AC 230/400 | – |
| Rated short-circuit<br>capacity $I_{cn}$ | kA | Char. B, C, D: 230/400 V (10 … 80 A) = 25 kA | – |
| Service short-circuit<br>capacity $I_{cs}$ | kA | Char. B, C, D:<br>230/400 V<br>(10 … 80 A) = 12.5 kA | – |
| **Data acc. to IEC/EN 60947-2** | | | |
| Rated operational voltage $U_e$ | V | AC 400/690<br>1-pole: DC 125<br>2-pole: DC 250<br>3-pole: DC 375<br>4-pole: DC 500 | AC 690 |
| Rated ultimate short-circuit<br>capacity $I_{cu}$ | kA | AC 220 … 240 V = 50 kA<br>AC 240/415 V = 50 kA<br>AC 254/440 V = 30 kA<br>AC 400/690 V (up to 80 A) = 6 kA<br>AC 400/690 V (100 … 125 A) = 4.5 kA<br>DC 125 V (1-pole) = 30 kA<br>DC 250 V (2-pole) = 30 kA<br>DC 375 V (3-pole) = 30 kA<br>DC 500 V (4-pole) = 30 kA | AC 220 … 240 V = 50 kA<br>AC 240/415 V = 50 kA<br>AC 254/440 V = 30 kA<br>AC 400/690 V = 6 kA<br>DC 375 V = 30 kA |
| Rated service short-circuit<br>capacity $I_{cs}$ | kA | AC 220 … 240 = 40 kA<br>AC 240/415 V = 40 kA<br>AC 254/440 V (up to 80 A) = 22.5 kA<br>AC 254/440 V (100 … 125 A) = 15 kA<br>AC 400/690 V (up to 80 A) = 4 kA<br>AC 400/690 V (100 … 125 A) = 3 kA<br>DC 125 V (1-pole) = 30 kA<br>DC 250 V (2-pole) = 30 kA<br>DC 500 V (4-pole) = 30 kA | AC 220 … 240 = 40 kA<br>AC 240/415 V = 40 kA<br>AC 254/440 V = 22.5 kA<br>AC 400/690 V = 4 kA<br>DC 375 V = 30 kA |

Note: The minimum operating voltage for S800 is 12 VAC/VDC.

| | S800S-UC<br>UCB, UCK | S800N<br>B, C, D | S800C<br>B, C, D, K |
|---|---|---|---|
| | IEC/EN 60947-2 | IEC/EN 60947-2,<br>IEC/EN 60898-1 | IEC/EN 60947-2,<br>EN 60898-1 |
| | 1 … 4 | 1 … 4 | 1 … 4 |
| | 10 … 125 | 6 … 125 | 10 … 125 |
| | 50/60 | 50/60 | 50/60 |
| | DC 1000 | AC 690 | AC 500 |
| | 8 | 8 | 8 |
| | IV | IV | IV |
| | 1- and 2-pole: 3<br>3- and 4-pole: 2 | 3 | 3 |
| | yes | yes | yes |
| | – | AC 230/400 | AC 230/400 |
| | – | 230/400 V (10 … 80 A) = 20 kA | Char. B, C, D: 230/400 V = 15 kA |
| | – | 230/400 V<br>(10 … 80 A) = 10 kA | Char. B, C, D:<br>230/400 V = 7.5 kA |
| | 1-pole: DC 250<br>2-pole: DC 500<br>3-pole: DC 750<br>4-pole (63 … 125 A): DC 750<br>4-pole (10 … 50 A): DC 1000 | AC 400/690<br>1-pole: DC 125<br>2-pole: DC 250<br>3-pole: DC 375<br>4-pole: DC 500 | AC 254/440<br>1-pole: DC 125<br>2-pole: DC 250<br>3-pole: DC 375<br>4-pole: DC 500 |
| | DC 250 V (1-pole) = 50 kA<br>DC 500 V (2-pole) = 50 kA<br>DC 750 V (3-pole) = 50 kA<br>DC 750 V (4-pole) = 50 kA | AC 220 … 240 V = 36 kA<br>AC 240/415 V = 36 kA<br>AC 254/440 V = 20 kA<br>AC 400/690 V = 4.5 kA<br>DC 125 V (1-pole) = 20 kA<br>DC 250 V (2-pole) = 20 kA<br>DC 375 V (3-pole) = 20 kA<br>DC 500 V (4-pole) = 20 kA | AC 220 … 240 V = 25 kA<br>AC 240/415 V = 25 kA<br>AC 254/440 V = 15 kA<br>DC 125 V (1-pole) = 10 kA<br>DC 250 V (2-pole) = 10 kA<br>DC 375 V (3-pole) = 10 kA |
| | DC 250 V (1-pole) = 50 kA<br>DC 500 V (2-pole) = 50 kA<br>DC 750 V (3-pole) = 50 kA<br>DC 750 V (4-pole) = 50 kA | AC 220 … 240 = 30 kA<br>AC 240/415 V = 30 kA<br>AC 254/440 V (up to 80 A) = 15 kA<br>AC 254/440 V (100 … 125 A) = 10 kA<br>AC 400/690 V = 3 kA<br>DC 125 V (1-pole) = 20 kA<br>DC 250 V (2-pole) = 20 kA<br>DC 375 V (3-pole) = 20 kA<br>DC 500 V (4-pole) = 20 kA<br>DC 375 V (3-pole) = 30 kA | AC 240/415 V = 18 kA<br>AC 254/440 V = 10 kA<br>DC 125 V (1-pole) = 10 kA<br>DC 250 V (2-pole) = 10 kA<br>DC 375 V (3-pole) = 10 kA<br>DC 500 V (4-pole) = 10 kA |

# MCBs
## S800 series technical features






S800

| Tripping characteristics | | S800B<br>B, C, D, K |
|---|---|---|
| Standards | | IEC 60947-2<br>EN 60898-1 |
| Poles | | 1 … 4 |
| Rated current **$I_e$** | A | Char. B, C: 32 … 125<br>Char. D, K: 32 … 125 |
| Rated frequency **f** | Hz | 50/60 |
| Rated insulation voltage **Ui**<br>acc. to IEC/EN 60664-1 | V | AC 500 |
| Rated impulse withstand<br>voltage Uimp (1.2/50µs) | kV | 6 |
| Overvoltage category | | III |
| Pollution degree | | 3 |
| Suitability for isolation | | yes |
| **Data acc. to IEC/EN 60898-1** | | |
| Rated operational voltage **$U_e$** | V | AC 230/400 |
| Rated short-circuit capacity **$I_{cn}$** | kA | 230/400 V = 10 kA |
| Service short-circuit capacity **$I_{cs}$** | kA | 230/400 V = 7.5 kA |
| **Data acc. to IEC/EN 60947-3** | | |
| Rated operational voltage **Ue** | V | – |
| Min. operating voltage | V | – |
| Rated short-term withstand current **Icw** | kA | – |
| Rated short-circuit making capacity **Icm** | kA | – |
| Utilisation category | | – |
| **Data acc. to IEC/EN 60947-2** | | |
| Rated operational voltage **Ue** | V | AC 230/400 |
| Rated ultimate short-circuit capacity **$I_{cu}$** | kA | AC 230 V = 16 kA<br>AC 230/400 V = 16 kA<br>DC 75 V (1-pole) = 10 kA<br>DC 150 V (2-pole) = 10 kA<br>DC 225 V (3-pole = 10 kA<br>DC 300 V (4-pole) = 10 kA |
| Rated service short-circuit capacity **$I_{cs}$** | kA | AC 230 V = 10 kA<br>AC 230/400 V = 10 kA |
| Data acc. to UL / CSA | | |
| Rated voltage | V | |
| Short-circuit current rating<br>acc. to UL 489 | kA | |
| Short-circuit current rating<br>acc. to UL 489B | kA | |

| | S800HV<br>K | S800U<br>K, Z | S804U-UCZ<br>UCZ |
|---|---|---|---|
| | IEC/EN 60947-2 | UL489<br>IEC 60947-2 | UL489 |
| | 1 … 3 | 1 … 4 | 4 |
| | 6 … 125 | 10 – 100 | 10 – 80 |
| | 50/60 | 50/60 | – |
| | AC 1000 | AC 690 | DC 1500 |
| | 8 | 8 | 8 |
| | III | IV | IV |
| | 2 | 3 | 3 |
| | yes | yes | yes |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | – | – | – |
| | AC 580/1000 | AC 240/415 | DC 600 |
| | AC 580/1000<br>(6 … 63 A) = 4kA<br>(80 … 125 A) = 3kA | 1-pole: AC 240 V 30 kA<br>multipole: AC 415 V 50 kA | –<br>– |
| | 2.5 (6 … 63 A)<br>2 (80 … 125 A) | 1-pole: AC 240 V 25 kA<br>multipole: AC 415 V 40 kA | – |
| | | | |
| | | AC 240 | DC 600 |
| | | 1-pole 30 kA<br>multipole: 50 kA | 10 kA |
| | | | |

# High performance MCBs
## S800S series 50000 with cage terminal, B characteristic






S801S




S802S

### S800S-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn=25kA (10 ... 80A)**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408107 | S801S-B6 | 2CCS861001R0065 | | 0.245 | 1 |
| | 8 | 411329 | S801S-B8 | 2CCS861001R0085 | | 0.245 | 1 |
| | 10 | 200008 | S801S-B10 | 2CCS861001R0105 | | 0.245 | 1 |
| | 13 | 200015 | S801S-B13 | 2CCS861001R0135 | | 0.245 | 1 |
| | 16 | 200022 | S801S-B16 | 2CCS861001R0165 | | 0.245 | 1 |
| | 20 | 200039 | S801S-B20 | 2CCS861001R0205 | | 0.245 | 1 |
| | 25 | 200046 | S801S-B25 | 2CCS861001R0255 | | 0.245 | 1 |
| | 32 | 200053 | S801S-B32 | 2CCS861001R0325 | | 0.245 | 1 |
| | 40 | 200060 | S801S-B40 | 2CCS861001R0405 | | 0.245 | 1 |
| | 50 | 200077 | S801S-B50 | 2CCS861001R0505 | | 0.245 | 1 |
| | 63 | 200084 | S801S-B63 | 2CCS861001R0635 | | 0.245 | 1 |
| | 80 | 200091 | S801S-B80 | 2CCS861001R0805 | | 0.245 | 1 |
| | 100 | 200107 | S801S-B100 | 2CCS861001R0825 | | 0.245 | 1 |
| | 125 | 200114 | S801S-B125 | 2CCS861001R0845 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408114 | S802S-B6 | 2CCS862001R0065 | | 0.49 | 1 |
| | 8 | 411336 | S802S-B8 | 2CCS862001R0085 | | 0.49 | 1 |
| | 10 | 200121 | S802S-B10 | 2CCS862001R0105 | | 0.49 | 1 |
| | 13 | 200138 | S802S-B13 | 2CCS862001R0135 | | 0.49 | 1 |
| | 16 | 200145 | S802S-B16 | 2CCS862001R0165 | | 0.49 | 1 |
| | 20 | 200152 | S802S-B20 | 2CCS862001R0205 | | 0.49 | 1 |
| | 25 | 200169 | S802S-B25 | 2CCS862001R0255 | | 0.49 | 1 |
| | 32 | 200176 | S802S-B32 | 2CCS862001R0325 | | 0.49 | 1 |
| | 40 | 200183 | S802S-B40 | 2CCS862001R0405 | | 0.49 | 1 |
| | 50 | 200190 | S802S-B50 | 2CCS862001R0505 | | 0.49 | 1 |
| | 63 | 200206 | S802S-B63 | 2CCS862001R0635 | | 0.49 | 1 |
| | 80 | 200213 | S802S-B80 | 2CCS862001R0805 | | 0.49 | 1 |
| | 100 | 200220 | S802S-B100 | 2CCS862001R0825 | | 0.49 | 1 |
| | 125 | 200237 | S802S-B125 | 2CCS862001R0845 | | 0.49 | 1 |

**Where to find more:**
Coordination tables for S 800N MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56




S803S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408121 | S803S-B6 | 2CCS863001R0065 | | 0.735 | 1 |
| | 8 | 411343 | S803S-B8 | 2CCS863001R0085 | | 0.735 | 1 |
| | 10 | 200244 | S803S-B10 | 2CCS863001R0105 | | 0.735 | 1 |
| | 13 | 200251 | S803S-B13 | 2CCS863001R0135 | | 0.735 | 1 |
| | 16 | 200268 | S803S-B16 | 2CCS863001R0165 | | 0.735 | 1 |
| | 20 | 200275 | S803S-B20 | 2CCS863001R0205 | | 0.735 | 1 |
| | 25 | 200282 | S803S-B25 | 2CCS863001R0255 | | 0.735 | 1 |
| | 32 | 200299 | S803S-B32 | 2CCS863001R0325 | | 0.735 | 1 |
| | 40 | 200305 | S803S-B40 | 2CCS863001R0405 | | 0.735 | 1 |
| | 50 | 200312 | S803S-B50 | 2CCS863001R0505 | | 0.735 | 1 |
| | 63 | 200329 | S803S-B63 | 2CCS863001R0635 | | 0.735 | 1 |
| | 80 | 200336 | S803S-B80 | 2CCS863001R0805 | | 0.735 | 1 |
| | 100 | 200343 | S803S-B100 | 2CCS863001R0825 | | 0.735 | 1 |
| | 125 | 200350 | S803S-B125 | 2CCS863001R0845 | | 0.735 | 1 |




S804S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408138 | S804S-B6 | 2CCS864001R0065 | | 0.98 | 1 |
| | 8 | 411350 | S804S-B8 | 2CCS864001R0085 | | 0.98 | 1 |
| | 10 | 200367 | S804S-B10 | 2CCS864001R0105 | | 0.98 | 1 |
| | 13 | 200374 | S804S-B13 | 2CCS864001R0135 | | 0.98 | 1 |
| | 16 | 200381 | S804S-B16 | 2CCS864001R0165 | | 0.98 | 1 |
| | 20 | 200398 | S804S-B20 | 2CCS864001R0205 | | 0.98 | 1 |
| | 25 | 200404 | S804S-B25 | 2CCS864001R0255 | | 0.98 | 1 |
| | 32 | 200411 | S804S-B32 | 2CCS864001R0325 | | 0.98 | 1 |
| | 40 | 200428 | S804S-B40 | 2CCS864001R0405 | | 0.98 | 1 |
| | 50 | 200435 | S804S-B50 | 2CCS864001R0505 | | 0.98 | 1 |
| | 63 | 200442 | S804S-B63 | 2CCS864001R0635 | | 0.98 | 1 |
| | 80 | 200459 | S804S-B80 | 2CCS864001R0805 | | 0.98 | 1 |
| | 100 | 200466 | S804S-B100 | 2CCS864001R0825 | | 0.98 | 1 |
| | 125 | 200473 | S804S-B125 | 2CCS864001R0845 | | 0.98 | 1 |

# High performance MCBs
## S800S series 50000 with ring terminal connection, B characteristic






S801S




S802S

### S800S-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn=25kA (10 ... 80A)**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408268 | S801S-B6-R | 2CCS861002R0065 | | 0,245 | 1 |
| | 8 | 411480 | S801S-B8-R | 2CCS861002R0085 | | 0,245 | 1 |
| | 10 | 209636 | S801S-B10-R | 2CCS861002R0105 | | 0,245 | 1 |
| | 13 | 209643 | S801S-B13-R | 2CCS861002R0135 | | 0,245 | 1 |
| | 16 | 209650 | S801S-B16-R | 2CCS861002R0165 | | 0,245 | 1 |
| | 20 | 209667 | S801S-B20-R | 2CCS861002R0205 | | 0,245 | 1 |
| | 25 | 209674 | S801S-B25-R | 2CCS861002R0255 | | 0,245 | 1 |
| | 32 | 209681 | S801S-B32-R | 2CCS861002R0325 | | 0,245 | 1 |
| | 40 | 206826 | S801S-B40-R | 2CCS861002R0405 | | 0,245 | 1 |
| | 50 | 206833 | S801S-B50-R | 2CCS861002R0505 | | 0,245 | 1 |
| | 63 | 206840 | S801S-B63-R | 2CCS861002R0635 | | 0,245 | 1 |
| | 80 | 206857 | S801S-B80-R | 2CCS861002R0805 | | 0,245 | 1 |
| | 100 | 206864 | S801S-B100-R | 2CCS861002R0825 | | 0,245 | 1 |
| | 125 | 206871 | S801S-B125-R | 2CCS861002R0845 | | 0,245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408275 | S802S-B6-R | 2CCS862002R0065 | | 0,49 | 1 |
| | 8 | 411497 | S802S-B8-R | 2CCS862002R0085 | | 0,49 | 1 |
| | 10 | 209698 | S802S-B10-R | 2CCS862002R0105 | | 0,49 | 1 |
| | 13 | 209704 | S802S-B13-R | 2CCS862002R0135 | | 0,49 | 1 |
| | 16 | 209711 | S802S-B16-R | 2CCS862002R0165 | | 0,49 | 1 |
| | 20 | 209728 | S802S-B20-R | 2CCS862002R0205 | | 0,49 | 1 |
| | 25 | 209735 | S802S-B25-R | 2CCS862002R0255 | | 0,49 | 1 |
| | 32 | 209742 | S802S-B32-R | 2CCS862002R0325 | | 0,49 | 1 |
| | 40 | 206888 | S802S-B40-R | 2CCS862002R0405 | | 0,49 | 1 |
| | 50 | 206895 | S802S-B50-R | 2CCS862002R0505 | | 0,49 | 1 |
| | 63 | 206901 | S802S-B63-R | 2CCS862002R0635 | | 0,49 | 1 |
| | 80 | 206918 | S802S-B80-R | 2CCS862002R0805 | | 0,49 | 1 |
| | 100 | 206925 | S802S-B100-R | 2CCS862002R0825 | | 0,49 | 1 |
| | 125 | 206932 | S802S-B125-R | 2CCS862002R0845 | | 0,49 | 1 |

**Where to find more:**
Coordination tables for S 800 MCBs: Chapter 2 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

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Where can I get certificates and declaration?
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**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56




S803S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408282 | S803S-B6-R | 2CCS863002R0065 | | 0,735 | 1 |
| | 8 | 411503 | S803S-B8-R | 2CCS863002R0085 | | 0,735 | 1 |
| | 10 | 209759 | S803S-B10-R | 2CCS863002R0105 | | 0,735 | 1 |
| | 13 | 209766 | S803S-B13-R | 2CCS863002R0135 | | 0,735 | 1 |
| | 16 | 209773 | S803S-B16-R | 2CCS863002R0165 | | 0,735 | 1 |
| | 20 | 209780 | S803S-B20-R | 2CCS863002R0205 | | 0,735 | 1 |
| | 25 | 209797 | S803S-B25-R | 2CCS863002R0255 | | 0,735 | 1 |
| | 32 | 209803 | S803S-B32-R | 2CCS863002R0325 | | 0,735 | 1 |
| | 40 | 206949 | S803S-B40-R | 2CCS863002R0405 | | 0,735 | 1 |
| | 50 | 206956 | S803S-B50-R | 2CCS863002R0505 | | 0,735 | 1 |
| | 63 | 206963 | S803S-B63-R | 2CCS863002R0635 | | 0,735 | 1 |
| | 80 | 206970 | S803S-B80-R | 2CCS863002R0805 | | 0,735 | 1 |
| | 100 | 206987 | S803S-B100-R | 2CCS863002R0825 | | 0,735 | 1 |
| | 125 | 206994 | S803S-B125-R | 2CCS863002R0845 | | 0,735 | 1 |




S804S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408299 | S804S-B6-R | 2CCS864002R0065 | | 0,98 | 1 |
| | 8 | 411510 | S804S-B8-R | 2CCS864002R0085 | | 0,98 | 1 |
| | 10 | 209810 | S804S-B10-R | 2CCS864002R0105 | | 0,98 | 1 |
| | 13 | 209827 | S804S-B13-R | 2CCS864002R0135 | | 0,98 | 1 |
| | 16 | 209834 | S804S-B16-R | 2CCS864002R0165 | | 0,98 | 1 |
| | 20 | 209841 | S804S-B20-R | 2CCS864002R0205 | | 0,98 | 1 |
| | 25 | 209858 | S804S-B25-R | 2CCS864002R0255 | | 0,98 | 1 |
| | 32 | 209865 | S804S-B32-R | 2CCS864002R0325 | | 0,98 | 1 |
| | 40 | 207007 | S804S-B40-R | 2CCS864002R0405 | | 0,98 | 1 |
| | 50 | 207014 | S804S-B50-R | 2CCS864002R0505 | | 0,98 | 1 |
| | 63 | 207021 | S804S-B63-R | 2CCS864002R0635 | | 0,98 | 1 |
| | 80 | 207038 | S804S-B80-R | 2CCS864002R0805 | | 0,98 | 1 |
| | 100 | 207045 | S804S-B100-R | 2CCS864002R0825 | | 0,98 | 1 |
| | 125 | 207052 | S804S-B125-R | 2CCS864002R0845 | | 0,98 | 1 |

# High performance MCBs
## S800S series 50000 with cage terminal, C characteristic






S801S




S802S

### S800S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn=25kA (10 ... 80A)**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408145 | S801S-C6 | 2CCS861001R0064 | | 0.245 | 1 |
| | 8 | 411367 | S801S-C8 | 2CCS861001R0084 | | 0.245 | 1 |
| | 10 | 200480 | S801S-C10 | 2CCS861001R0104 | | 0.245 | 1 |
| | 13 | 200497 | S801S-C13 | 2CCS861001R0134 | | 0.245 | 1 |
| | 16 | 200503 | S801S-C16 | 2CCS861001R0164 | | 0.245 | 1 |
| | 20 | 200510 | S801S-C20 | 2CCS861001R0204 | | 0.245 | 1 |
| | 25 | 200527 | S801S-C25 | 2CCS861001R0254 | | 0.245 | 1 |
| | 32 | 200534 | S801S-C32 | 2CCS861001R0324 | | 0.245 | 1 |
| | 40 | 200541 | S801S-C40 | 2CCS861001R0404 | | 0.245 | 1 |
| | 50 | 200558 | S801S-C50 | 2CCS861001R0504 | | 0.245 | 1 |
| | 63 | 200565 | S801S-C63 | 2CCS861001R0634 | | 0.245 | 1 |
| | 80 | 200572 | S801S-C80 | 2CCS861001R0804 | | 0.245 | 1 |
| | 100 | 200589 | S801S-C100 | 2CCS861001R0824 | | 0.245 | 1 |
| | 125 | 200596 | S801S-C125 | 2CCS861001R0844 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408152 | S802S-C6 | 2CCS862001R0064 | | 0.49 | 1 |
| | 8 | 411374 | S802S-C8 | 2CCS862001R0084 | | 0.49 | 1 |
| | 10 | 200602 | S802S-C10 | 2CCS862001R0104 | | 0.49 | 1 |
| | 13 | 200619 | S802S-C13 | 2CCS862001R0134 | | 0.49 | 1 |
| | 16 | 200626 | S802S-C16 | 2CCS862001R0164 | | 0.49 | 1 |
| | 20 | 200633 | S802S-C20 | 2CCS862001R0204 | | 0.49 | 1 |
| | 25 | 200640 | S802S-C25 | 2CCS862001R0254 | | 0.49 | 1 |
| | 32 | 200657 | S802S-C32 | 2CCS862001R0324 | | 0.49 | 1 |
| | 40 | 200664 | S802S-C40 | 2CCS862001R0404 | | 0.49 | 1 |
| | 50 | 200671 | S802S-C50 | 2CCS862001R0504 | | 0.49 | 1 |
| | 63 | 200688 | S802S-C63 | 2CCS862001R0634 | | 0.49 | 1 |
| | 80 | 200695 | S802S-C80 | 2CCS862001R0804 | | 0.49 | 1 |
| | 100 | 200701 | S802S-C100 | 2CCS862001R0824 | | 0.49 | 1 |
| | 125 | 200718 | S802S-C125 | 2CCS862001R0844 | | 0.49 | 1 |

**Where to find more:**
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S803S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408169 | S803S-C6 | 2CCS863001R0064 | | 0.735 | 1 |
| | 8 | 411381 | S803S-C8 | 2CCS863001R0084 | | 0.735 | 1 |
| | 10 | 200725 | S803S-C10 | 2CCS863001R0104 | | 0.735 | 1 |
| | 13 | 200732 | S803S-C13 | 2CCS863001R0134 | | 0.735 | 1 |
| | 16 | 200749 | S803S-C16 | 2CCS863001R0164 | | 0.735 | 1 |
| | 20 | 200756 | S803S-C20 | 2CCS863001R0204 | | 0.735 | 1 |
| | 25 | 200763 | S803S-C25 | 2CCS863001R0254 | | 0.735 | 1 |
| | 32 | 200770 | S803S-C32 | 2CCS863001R0324 | | 0.735 | 1 |
| | 40 | 200787 | S803S-C40 | 2CCS863001R0404 | | 0.735 | 1 |
| | 50 | 200794 | S803S-C50 | 2CCS863001R0504 | | 0.735 | 1 |
| | 63 | 200800 | S803S-C63 | 2CCS863001R0634 | | 0.735 | 1 |
| | 80 | 200817 | S803S-C80 | 2CCS863001R0804 | | 0.735 | 1 |
| | 100 | 200824 | S803S-C100 | 2CCS863001R0824 | | 0.735 | 1 |
| | 125 | 200831 | S803S-C125 | 2CCS863001R0844 | | 0.735 | 1 |




S804S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408176 | S804S-C6 | 2CCS864001R0064 | | 0.98 | 1 |
| | 8 | 411398 | S804S-C8 | 2CCS864001R0084 | | 0.98 | 1 |
| | 10 | 200848 | S804S-C10 | 2CCS864001R0104 | | 0.98 | 1 |
| | 13 | 200855 | S804S-C13 | 2CCS864001R0134 | | 0.98 | 1 |
| | 16 | 200862 | S804S-C16 | 2CCS864001R0164 | | 0.98 | 1 |
| | 20 | 200879 | S804S-C20 | 2CCS864001R0204 | | 0.98 | 1 |
| | 25 | 200886 | S804S-C25 | 2CCS864001R0254 | | 0.98 | 1 |
| | 32 | 200893 | S804S-C32 | 2CCS864001R0324 | | 0.98 | 1 |
| | 40 | 200909 | S804S-C40 | 2CCS864001R0404 | | 0.98 | 1 |
| | 50 | 200916 | S804S-C50 | 2CCS864001R0504 | | 0.98 | 1 |
| | 63 | 200923 | S804S-C63 | 2CCS864001R0634 | | 0.98 | 1 |
| | 80 | 200930 | S804S-C80 | 2CCS864001R0804 | | 0.98 | 1 |
| | 100 | 200947 | S804S-C100 | 2CCS864001R0824 | | 0.98 | 1 |
| | 125 | 200954 | S804S-C125 | 2CCS864001R0844 | | 0.98 | 1 |

# High performance MCBs
## S800S series 50000 with ring terminal connection, C characteristic




S801S




S802S

### S800S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, IEC/EN 60898**
**Icn=25kA (10 ... 80A)**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408305 | S801S-C6-R | 2CCS861002R0064 | | 0,245 | 1 |
| | 8 | 411527 | S801S-C8-R | 2CCS861002R0084 | | 0,245 | 1 |
| | 10 | 209872 | S801S-C10-R | 2CCS861002R0104 | | 0,245 | 1 |
| | 13 | 209889 | S801S-C13-R | 2CCS861002R0134 | | 0,245 | 1 |
| | 16 | 209896 | S801S-C16-R | 2CCS861002R0164 | | 0,245 | 1 |
| | 20 | 209902 | S801S-C20-R | 2CCS861002R0204 | | 0,245 | 1 |
| | 25 | 209919 | S801S-C25-R | 2CCS861002R0254 | | 0,245 | 1 |
| | 32 | 209926 | S801S-C32-R | 2CCS861002R0324 | | 0,245 | 1 |
| | 40 | 207069 | S801S-C40-R | 2CCS861002R0404 | | 0,245 | 1 |
| | 50 | 207076 | S801S-C50-R | 2CCS861002R0504 | | 0,245 | 1 |
| | 63 | 207083 | S801S-C63-R | 2CCS861002R0634 | | 0,245 | 1 |
| | 80 | 207090 | S801S-C80-R | 2CCS861002R0804 | | 0,245 | 1 |
| | 100 | 207106 | S801S-C100-R | 2CCS861002R0824 | | 0,245 | 1 |
| | 125 | 207113 | S801S-C125-R | 2CCS861002R0844 | | 0,245 | 1 |

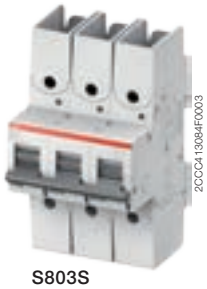
| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408312 | S802S-C6-R | 2CCS862002R0064 | | 0,49 | 1 |
| | 8 | 411534 | S802S-C8-R | 2CCS862001R0084 | | 0,49 | 1 |
| | 10 | 209933 | S802S-C10-R | 2CCS862002R0104 | | 0,49 | 1 |
| | 13 | 209940 | S802S-C13-R | 2CCS862002R0134 | | 0,49 | 1 |
| | 16 | 209957 | S802S-C16-R | 2CCS862002R0164 | | 0,49 | 1 |
| | 20 | 209964 | S802S-C20-R | 2CCS862002R0204 | | 0,49 | 1 |
| | 25 | 209971 | S802S-C25-R | 2CCS862002R0254 | | 0,49 | 1 |
| | 32 | 209988 | S802S-C32-R | 2CCS862002R0324 | | 0,49 | 1 |
| | 40 | 207120 | S802S-C40-R | 2CCS862002R0404 | | 0,49 | 1 |
| | 50 | 207137 | S802S-C50-R | 2CCS862002R0504 | | 0,49 | 1 |
| | 63 | 207144 | S802S-C63-R | 2CCS862002R0634 | | 0,49 | 1 |
| | 80 | 207151 | S802S-C80-R | 2CCS862002R0804 | | 0,49 | 1 |
| | 100 | 207168 | S802S-C100-R | 2CCS862002R0824 | | 0,49 | 1 |
| | 125 | 207175 | S802S-C125-R | 2CCS862002R0844 | | 0,49 | 1 |

**Where to find more:**
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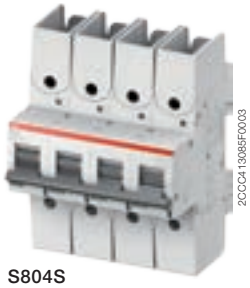
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| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 6 | 408329 | S803S-C6-R | 2CCS863002R0064 | | 0,735 | 1 |
| | 8 | 411541 | S803S-C8-R | 2CCS863002R0084 | | 0,735 | 1 |
| | 10 | 209995 | S803S-C10-R | 2CCS863002R0104 | | 0,735 | 1 |
| | 13 | 210007 | S803S-C13-R | 2CCS863002R0134 | | 0,735 | 1 |
| | 16 | 210014 | S803S-C16-R | 2CCS863002R0164 | | 0,735 | 1 |
| | 20 | 210021 | S803S-C20-R | 2CCS863002R0204 | | 0,735 | 1 |
| | 25 | 210038 | S803S-C25-R | 2CCS863002R0254 | | 0,735 | 1 |
| | 32 | 210045 | S803S-C32-R | 2CCS863002R0324 | | 0,735 | 1 |
| | 40 | 207182 | S803S-C40-R | 2CCS863002R0404 | | 0,735 | 1 |
| | 50 | 207199 | S803S-C50-R | 2CCS863002R0504 | | 0,735 | 1 |
| | 63 | 207205 | S803S-C63-R | 2CCS863002R0634 | | 0,735 | 1 |
| | 80 | 207212 | S803S-C80-R | 2CCS863002R0804 | | 0,735 | 1 |
| | 100 | 207229 | S803S-C100-R | 2CCS863002R0824 | | 0,735 | 1 |
| | 125 | 207236 | S803S-C125-R | 2CCS863002R0844 | | 0,735 | 1 |




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 6 | 408336 | S804S-C6-R | 2CCS864002R0064 | | 0,98 | 1 |
| | 8 | 411558 | S804S-C8-R | 2CCS864002R0084 | | 0,98 | 1 |
| | 10 | 210052 | S804S-C10-R | 2CCS864002R0104 | | 0,98 | 1 |
| | 13 | 210069 | S804S-C13-R | 2CCS864002R0134 | | 0,98 | 1 |
| | 16 | 210076 | S804S-C16-R | 2CCS864002R0164 | | 0,98 | 1 |
| | 20 | 210083 | S804S-C20-R | 2CCS864002R0204 | | 0,98 | 1 |
| | 25 | 210090 | S804S-C25-R | 2CCS864002R0254 | | 0,98 | 1 |
| | 32 | 210106 | S804S-C32-R | 2CCS864002R0324 | | 0,98 | 1 |
| | 40 | 207243 | S804S-C40-R | 2CCS864002R0404 | | 0,98 | 1 |
| | 50 | 207250 | S804S-C50-R | 2CCS864002R0504 | | 0,98 | 1 |
| | 63 | 207267 | S804S-C63-R | 2CCS864002R0634 | | 0,98 | 1 |
| | 80 | 207274 | S804S-C80-R | 2CCS864002R0804 | | 0,98 | 1 |
| | 100 | 207281 | S804S-C100-R | 2CCS864002R0824 | | 0,98 | 1 |
| | 125 | 207298 | S804S-C125-R | 2CCS864002R0844 | | 0,98 | 1 |

# High performance MCBs
## S800S series 50000 with cage terminal, D characteristic






S801S




S802S

### S800S-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60898, IEC/EN 60947-2**

**Icn=25kA (10 ... 80A)**

**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408183 | S801S-D6 | 2CCS861001R0061 | | 0.245 | 1 |
| | 8 | 411404 | S801S-D8 | 2CCS861001R0081 | | 0.245 | 1 |
| | 10 | 200961 | S801S-D10 | 2CCS861001R0101 | | 0.245 | 1 |
| | 13 | 200978 | S801S-D13 | 2CCS861001R0131 | | 0.245 | 1 |
| | 16 | 200985 | S801S-D16 | 2CCS861001R0161 | | 0.245 | 1 |
| | 20 | 200992 | S801S-D20 | 2CCS861001R0201 | | 0.245 | 1 |
| | 25 | 201005 | S801S-D25 | 2CCS861001R0251 | | 0.245 | 1 |
| | 32 | 201012 | S801S-D32 | 2CCS861001R0321 | | 0.245 | 1 |
| | 40 | 201029 | S801S-D40 | 2CCS861001R0401 | | 0.245 | 1 |
| | 50 | 201036 | S801S-D50 | 2CCS861001R0501 | | 0.245 | 1 |
| | 63 | 201043 | S801S-D63 | 2CCS861001R0631 | | 0.245 | 1 |
| | 80 | 201050 | S801S-D80 | 2CCS861001R0801 | | 0.245 | 1 |
| | 100 | 201067 | S801S-D100 | 2CCS861001R0821 | | 0.245 | 1 |
| | 125 | 201074 | S801S-D125 | 2CCS861001R0841 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408190 | S802S-D6 | 2CCS862001R0061 | | 0.49 | 1 |
| | 8 | 411411 | S802S-D8 | 2CCS862001R0081 | | 0.49 | 1 |
| | 10 | 201081 | S802S-D10 | 2CCS862001R0101 | | 0.49 | 1 |
| | 13 | 201098 | S802S-D13 | 2CCS862001R0131 | | 0.49 | 1 |
| | 16 | 201104 | S802S-D16 | 2CCS862001R0161 | | 0.49 | 1 |
| | 20 | 201111 | S802S-D20 | 2CCS862001R0201 | | 0.49 | 1 |
| | 25 | 201128 | S802S-D25 | 2CCS862001R0251 | | 0.49 | 1 |
| | 32 | 201135 | S802S-D32 | 2CCS862001R0321 | | 0.49 | 1 |
| | 40 | 201142 | S802S-D40 | 2CCS862001R0401 | | 0.49 | 1 |
| | 50 | 201159 | S802S-D50 | 2CCS862001R0501 | | 0.49 | 1 |
| | 63 | 201166 | S802S-D63 | 2CCS862001R0631 | | 0.49 | 1 |
| | 80 | 201173 | S802S-D80 | 2CCS862001R0801 | | 0.49 | 1 |
| | 100 | 201180 | S802S-D100 | 2CCS862001R0821 | | 0.49 | 1 |
| | 125 | 201197 | S802S-D125 | 2CCS862001R0841 | | 0.49 | 1 |

**Where to find more:**
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| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408206 | S803S-D6 | 2CCS863001R0061 | | 0.735 | 1 |
| | 8 | 411428 | S803S-D8 | 2CCS863001R0081 | | 0.735 | 1 |
| | 10 | 201203 | S803S-D10 | 2CCS863001R0101 | | 0.735 | 1 |
| | 13 | 201210 | S803S-D13 | 2CCS863001R0131 | | 0.735 | 1 |
| | 16 | 201227 | S803S-D16 | 2CCS863001R0161 | | 0.735 | 1 |
| | 20 | 201234 | S803S-D20 | 2CCS863001R0201 | | 0.735 | 1 |
| | 25 | 201241 | S803S-D25 | 2CCS863001R0251 | | 0.735 | 1 |
| | 32 | 201258 | S803S-D32 | 2CCS863001R0321 | | 0.735 | 1 |
| | 40 | 201265 | S803S-D40 | 2CCS863001R0401 | | 0.735 | 1 |
| | 50 | 201272 | S803S-D50 | 2CCS863001R0501 | | 0.735 | 1 |
| | 63 | 201289 | S803S-D63 | 2CCS863001R0631 | | 0.735 | 1 |
| | 80 | 201296 | S803S-D80 | 2CCS863001R0801 | | 0.735 | 1 |
| | 100 | 201302 | S803S-D100 | 2CCS863001R0821 | | 0.735 | 1 |
| | 125 | 201319 | S803S-D125 | 2CCS863001R0841 | | 0.735 | 1 |




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| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408213 | S804S-D6 | 2CCS864001R0061 | | 0.98 | 1 |
| | 8 | 411435 | S804S-D8 | 2CCS864001R0081 | | 0.98 | 1 |
| | 10 | 201326 | S804S-D10 | 2CCS864001R0101 | | 0.98 | 1 |
| | 13 | 201333 | S804S-D13 | 2CCS864001R0131 | | 0.98 | 1 |
| | 16 | 201340 | S804S-D16 | 2CCS864001R0161 | | 0.98 | 1 |
| | 20 | 201357 | S804S-D20 | 2CCS864001R0201 | | 0.98 | 1 |
| | 25 | 201364 | S804S-D25 | 2CCS864001R0251 | | 0.98 | 1 |
| | 32 | 201371 | S804S-D32 | 2CCS864001R0321 | | 0.98 | 1 |
| | 40 | 201388 | S804S-D40 | 2CCS864001R0401 | | 0.98 | 1 |
| | 50 | 201395 | S804S-D50 | 2CCS864001R0501 | | 0.98 | 1 |
| | 63 | 201401 | S804S-D63 | 2CCS864001R0631 | | 0.98 | 1 |
| | 80 | 201418 | S804S-D80 | 2CCS864001R0801 | | 0.98 | 1 |
| | 100 | 201425 | S804S-D100 | 2CCS864001R0821 | | 0.98 | 1 |
| | 125 | 201432 | S804S-D125 | 2CCS864001R0841 | | 0.98 | 1 |

# High performance MCBs
## S800S series 50000 with ring terminal connection, D characteristic






S801S




S802S

### S800S-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, IEC/EN 60898**

**Icn=25kA (10 ... 80A)**

**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408343 | S801S-D6-R | 2CCS861002R0061 | | 0,245 | 1 |
| | 8 | 411565 | S801S-D8-R | 2CCS861002R0081 | | 0,245 | 1 |
| | 10 | 210113 | S801S-D10-R | 2CCS861002R0101 | | 0,245 | 1 |
| | 13 | 210120 | S801S-D13-R | 2CCS861002R0131 | | 0,245 | 1 |
| | 16 | 210137 | S801S-D16-R | 2CCS861002R0161 | | 0,245 | 1 |
| | 20 | 210144 | S801S-D20-R | 2CCS861002R0201 | | 0,245 | 1 |
| | 25 | 210151 | S801S-D25-R | 2CCS861002R0251 | | 0,245 | 1 |
| | 32 | 210168 | S801S-D32-R | 2CCS861002R0321 | | 0,245 | 1 |
| | 40 | 207304 | S801S-D40-R | 2CCS861002R0401 | | 0,245 | 1 |
| | 50 | 207311 | S801S-D50-R | 2CCS861002R0501 | | 0,245 | 1 |
| | 63 | 207328 | S801S-D63-R | 2CCS861002R0631 | | 0,245 | 1 |
| | 80 | 207335 | S801S-D80-R | 2CCS861002R0801 | | 0,245 | 1 |
| | 100 | 207342 | S801S-D100-R | 2CCS861002R0821 | | 0,245 | 1 |
| | 125 | 207359 | S801S-D125-R | 2CCS861002R0841 | | 0,245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408350 | S802S-D6-R | 2CCS862002R0061 | | 0,49 | 1 |
| | 8 | 411572 | S802S-D8-R | 2CCS862002R0081 | | 0,49 | 1 |
| | 10 | 210175 | S802S-D10-R | 2CCS862002R0101 | | 0,49 | 1 |
| | 13 | 210182 | S802S-D13-R | 2CCS862002R0131 | | 0,49 | 1 |
| | 16 | 210199 | S802S-D16-R | 2CCS862002R0161 | | 0,49 | 1 |
| | 20 | 210205 | S802S-D20-R | 2CCS862002R0201 | | 0,49 | 1 |
| | 25 | 210212 | S802S-D25-R | 2CCS862002R0251 | | 0,49 | 1 |
| | 32 | 210229 | S802S-D32-R | 2CCS862002R0321 | | 0,49 | 1 |
| | 40 | 207366 | S802S-D40-R | 2CCS862002R0401 | | 0,49 | 1 |
| | 50 | 207373 | S802S-D50-R | 2CCS862002R0501 | | 0,49 | 1 |
| | 63 | 207380 | S802S-D63-R | 2CCS862002R0631 | | 0,49 | 1 |
| | 80 | 207397 | S802S-D80-R | 2CCS862002R0801 | | 0,49 | 1 |
| | 100 | 207403 | S802S-D100-R | 2CCS862002R0821 | | 0,49 | 1 |
| | 125 | 207410 | S802S-D125-R | 2CCS862002R0841 | | 0,49 | 1 |

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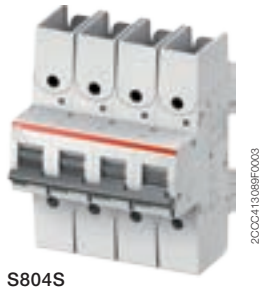
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S803S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408367 | S803S-D6-R | 2CCS863002R0061 | | 0,735 | 1 |
| | 8 | 411589 | S803S-D8-R | 2CCS863002R0081 | | 0,735 | 1 |
| | 10 | 210236 | S803S-D10-R | 2CCS863002R0101 | | 0,735 | 1 |
| | 13 | 210243 | S803S-D13-R | 2CCS863002R0131 | | 0,735 | 1 |
| | 16 | 210250 | S803S-D16-R | 2CCS863002R0161 | | 0,735 | 1 |
| | 20 | 210267 | S803S-D20-R | 2CCS863002R0201 | | 0,735 | 1 |
| | 25 | 210274 | S803S-D25-R | 2CCS863002R0251 | | 0,735 | 1 |
| | 32 | 210281 | S803S-D32-R | 2CCS863002R0321 | | 0,735 | 1 |
| | 40 | 207427 | S803S-D40-R | 2CCS863002R0401 | | 0,735 | 1 |
| | 50 | 207434 | S803S-D50-R | 2CCS863002R0501 | | 0,735 | 1 |
| | 63 | 207441 | S803S-D63-R | 2CCS863002R0631 | | 0,735 | 1 |
| | 80 | 207458 | S803S-D80-R | 2CCS863002R0801 | | 0,735 | 1 |
| | 100 | 207465 | S803S-D100-R | 2CCS863002R0821 | | 0,735 | 1 |
| | 125 | 207472 | S803S-D125-R | 2CCS863002R0841 | | 0,735 | 1 |




S804S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408374 | S804S-D6-R | 2CCS864002R0061 | | 0,98 | 1 |
| | 8 | 411596 | S804S-D8-R | 2CCS864002R0081 | | 0,98 | 1 |
| | 10 | 210298 | S804S-D10-R | 2CCS864002R0101 | | 0,98 | 1 |
| | 13 | 210304 | S804S-D13-R | 2CCS864002R0131 | | 0,98 | 1 |
| | 16 | 210311 | S804S-D16-R | 2CCS864002R0161 | | 0,98 | 1 |
| | 20 | 210328 | S804S-D20-R | 2CCS864002R0201 | | 0,98 | 1 |
| | 25 | 210335 | S804S-D25-R | 2CCS864002R0251 | | 0,98 | 1 |
| | 32 | 210342 | S804S-D32-R | 2CCS864002R0321 | | 0,98 | 1 |
| | 40 | 207489 | S804S-D40-R | 2CCS864002R0401 | | 0,98 | 1 |
| | 50 | 207496 | S804S-D50-R | 2CCS864002R0501 | | 0,98 | 1 |
| | 63 | 207502 | S804S-D63-R | 2CCS864002R0631 | | 0,98 | 1 |
| | 80 | 207519 | S804S-D80-R | 2CCS864002R0801 | | 0,98 | 1 |
| | 100 | 207526 | S804S-D100-R | 2CCS864002R0821 | | 0,98 | 1 |
| | 125 | 207533 | S804S-D125-R | 2CCS864002R0841 | | 0,98 | 1 |

# High performance MCBs
## S800S series 50000 with cage terminal, K characteristic






S801S




S802S

### S800S-K characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.
Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408220 | S801S-K6 | 2CCS861001R0067 | | 0.245 | 1 |
| | 8 | 411442 | S801S-K8 | 2CCS861001R0407 | | 0.245 | 1 |
| | 10 | 201449 | S801S-K10 | 2CCS861001R0427 | | 0.245 | 1 |
| | 13 | 201456 | S801S-K13 | 2CCS861001R0447 | | 0.245 | 1 |
| | 16 | 201463 | S801S-K16 | 2CCS861001R0467 | | 0.245 | 1 |
| | 20 | 201470 | S801S-K20 | 2CCS861001R0487 | | 0.245 | 1 |
| | 25 | 201487 | S801S-K25 | 2CCS861001R0517 | | 0.245 | 1 |
| | 32 | 201494 | S801S-K32 | 2CCS861001R0537 | | 0.245 | 1 |
| | 40 | 201500 | S801S-K40 | 2CCS861001R0557 | | 0.245 | 1 |
| | 50 | 201517 | S801S-K50 | 2CCS861001R0577 | | 0.245 | 1 |
| | 63 | 201524 | S801S-K63 | 2CCS861001R0597 | | 0.245 | 1 |
| | 80 | 201531 | S801S-K80 | 2CCS861001R0627 | | 0.245 | 1 |
| | 100 | 201548 | S801S-K100 | 2CCS861001R0637 | | 0.245 | 1 |
| | 125 | 201555 | S801S-K125 | 2CCS861001R0647 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408237 | S802S-K6 | 2CCS862001R0067 | | 0.49 | 1 |
| | 8 | 411459 | S802S-K8 | 2CCS862001R0407 | | 0.49 | 1 |
| | 10 | 201562 | S802S-K10 | 2CCS862001R0427 | | 0.49 | 1 |
| | 13 | 201579 | S802S-K13 | 2CCS862001R0447 | | 0.49 | 1 |
| | 16 | 201586 | S802S-K16 | 2CCS862001R0467 | | 0.49 | 1 |
| | 20 | 201593 | S802S-K20 | 2CCS862001R0487 | | 0.49 | 1 |
| | 25 | 201609 | S802S-K25 | 2CCS862001R0517 | | 0.49 | 1 |
| | 32 | 201616 | S802S-K32 | 2CCS862001R0537 | | 0.49 | 1 |
| | 40 | 201623 | S802S-K40 | 2CCS862001R0557 | | 0.49 | 1 |
| | 50 | 201630 | S802S-K50 | 2CCS862001R0577 | | 0.49 | 1 |
| | 63 | 201647 | S802S-K63 | 2CCS862001R0597 | | 0.49 | 1 |
| | 80 | 201654 | S802S-K80 | 2CCS862001R0627 | | 0.49 | 1 |
| | 100 | 201661 | S802S-K100 | 2CCS862001R0637 | | 0.49 | 1 |
| | 125 | 201678 | S802S-K125 | 2CCS862001R0647 | | 0.49 | 1 |

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S803S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 6 | 408244 | S803S-K6 | 2CCS863001R0067 | | 0.735 | 1 |
| | 8 | 411466 | S803S-K8 | 2CCS863001R0407 | | 0.735 | 1 |
| | 10 | 201685 | S803S-K10 | 2CCS863001R0427 | | 0.735 | 1 |
| | 13 | 201692 | S803S-K13 | 2CCS863001R0447 | | 0.735 | 1 |
| | 16 | 201708 | S803S-K16 | 2CCS863001R0467 | | 0.735 | 1 |
| | 20 | 201715 | S803S-K20 | 2CCS863001R0487 | | 0.735 | 1 |
| | 25 | 201722 | S803S-K25 | 2CCS863001R0517 | | 0.735 | 1 |
| | 32 | 201739 | S803S-K32 | 2CCS863001R0537 | | 0.735 | 1 |
| | 40 | 201746 | S803S-K40 | 2CCS863001R0557 | | 0.735 | 1 |
| | 50 | 201753 | S803S-K50 | 2CCS863001R0577 | | 0.735 | 1 |
| | 63 | 201760 | S803S-K63 | 2CCS863001R0597 | | 0.735 | 1 |
| | 80 | 201777 | S803S-K80 | 2CCS863001R0627 | | 0.735 | 1 |
| | 100 | 201784 | S803S-K100 | 2CCS863001R0637 | | 0.735 | 1 |
| | 125 | 201791 | S803S-K125 | 2CCS863001R0647 | | 0.735 | 1 |




S804S

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 408251 | S804S-K6 | 2CCS864001R0067 | | 0.98 | 1 |
| | 8 | 411473 | S804S-K8 | 2CCS864001R0407 | | 0.98 | 1 |
| | 10 | 201807 | S804S-K10 | 2CCS864001R0427 | | 0.98 | 1 |
| | 13 | 201814 | S804S-K13 | 2CCS864001R0447 | | 0.98 | 1 |
| | 16 | 201821 | S804S-K16 | 2CCS864001R0467 | | 0.98 | 1 |
| | 20 | 201838 | S804S-K20 | 2CCS864001R0487 | | 0.98 | 1 |
| | 25 | 201845 | S804S-K25 | 2CCS864001R0517 | | 0.98 | 1 |
| | 32 | 201852 | S804S-K32 | 2CCS864001R0537 | | 0.98 | 1 |
| | 40 | 201869 | S804S-K40 | 2CCS864001R0557 | | 0.98 | 1 |
| | 50 | 201876 | S804S-K50 | 2CCS864001R0577 | | 0.98 | 1 |
| | 63 | 201883 | S804S-K63 | 2CCS864001R0597 | | 0.98 | 1 |
| | 80 | 201890 | S804S-K80 | 2CCS864001R0627 | | 0.98 | 1 |
| | 100 | 201906 | S804S-K100 | 2CCS864001R0637 | | 0.98 | 1 |
| | 125 | 201913 | S804S-K125 | 2CCS864001R0647 | | 0.98 | 1 |

# High performance MCBs
## S800S series 50000 with ring terminal connection, K characteristic






S801S




S802S

### S800S-K characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.
Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2**
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 408381 | S801S-K6-R | 2CCS861002R0067 | | 0,245 | 1 |
| | 8 | 411602 | S801S-K8-R | 2CCS861002R0407 | | 0,245 | 1 |
| | 10 | 209391 | S801S-K10-R | 2CCS861002R0427 | | 0,245 | 1 |
| | 13 | 209407 | S801S-K13-R | 2CCS861002R0447 | | 0,245 | 1 |
| | 16 | 209414 | S801S-K16-R | 2CCS861002R0467 | | 0,245 | 1 |
| | 20 | 209421 | S801S-K20-R | 2CCS861002R0487 | | 0,245 | 1 |
| | 25 | 209438 | S801S-K25-R | 2CCS861002R0517 | | 0,245 | 1 |
| | 32 | 209445 | S801S-K32-R | 2CCS861002R0537 | | 0,245 | 1 |
| | 40 | 207540 | S801S-K40-R | 2CCS861002R0557 | | 0,245 | 1 |
| | 50 | 207557 | S801S-K50-R | 2CCS861002R0577 | | 0,245 | 1 |
| | 63 | 207564 | S801S-K63-R | 2CCS861002R0597 | | 0,245 | 1 |
| | 80 | 207571 | S801S-K80-R | 2CCS861002R0627 | | 0,245 | 1 |
| | 100 | 207588 | S801S-K100-R | 2CCS861002R0637 | | 0,245 | 1 |
| | 125 | 207595 | S801S-K125-R | 2CCS861002R0647 | | 0,245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 6 | 408398 | S802S-K6-R | 2CCS862002R0067 | | 0,49 | 1 |
| | 8 | 411619 | S802S-K8-R | 2CCS862002R0407 | | 0,49 | 1 |
| | 10 | 209452 | S802S-K10-R | 2CCS862002R0427 | | 0,49 | 1 |
| | 13 | 209469 | S802S-K13-R | 2CCS862002R0447 | | 0,49 | 1 |
| | 16 | 209476 | S802S-K16-R | 2CCS862002R0467 | | 0,49 | 1 |
| | 20 | 209483 | S802S-K20-R | 2CCS862002R0487 | | 0,49 | 1 |
| | 25 | 209490 | S802S-K25-R | 2CCS862002R0517 | | 0,49 | 1 |
| | 32 | 209506 | S802S-K32-R | 2CCS862002R0537 | | 0,49 | 1 |
| | 40 | 207601 | S802S-K40-R | 2CCS862002R0557 | | 0,49 | 1 |
| | 50 | 207618 | S802S-K50-R | 2CCS862002R0577 | | 0,49 | 1 |
| | 63 | 207625 | S802S-K63-R | 2CCS862002R0597 | | 0,49 | 1 |
| | 80 | 207632 | S802S-K80-R | 2CCS862002R0627 | | 0,49 | 1 |
| | 100 | 207649 | S802S-K100-R | 2CCS862002R0637 | | 0,49 | 1 |
| | 125 | 207656 | S802S-K125-R | 2CCS862002R0647 | | 0,49 | 1 |

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S803S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 6 | 408404 | S803S-K6-R | 2CCS863002R0067 | | 0,735 | 1 |
| | 8 | 411626 | S803S-K8-R | 2CCS863002R0407 | | 0,735 | 1 |
| | 10 | 209513 | S803S-K10-R | 2CCS863002R0427 | | 0,735 | 1 |
| | 13 | 209520 | S803S-K13-R | 2CCS863002R0447 | | 0,735 | 1 |
| | 16 | 209537 | S803S-K16-R | 2CCS863002R0467 | | 0,735 | 1 |
| | 20 | 209544 | S803S-K20-R | 2CCS863002R0487 | | 0,735 | 1 |
| | 25 | 209551 | S803S-K25-R | 2CCS863002R0517 | | 0,735 | 1 |
| | 32 | 209568 | S803S-K32-R | 2CCS863002R0537 | | 0,735 | 1 |
| | 40 | 207663 | S803S-K40-R | 2CCS863002R0557 | | 0,735 | 1 |
| | 50 | 207670 | S803S-K50-R | 2CCS863002R0577 | | 0,735 | 1 |
| | 63 | 207687 | S803S-K63-R | 2CCS863002R0597 | | 0,735 | 1 |
| | 80 | 207694 | S803S-K80-R | 2CCS863002R0627 | | 0,735 | 1 |
| | 100 | 207700 | S803S-K100-R | 2CCS863002R0637 | | 0,735 | 1 |
| | 125 | 207717 | S803S-K125-R | 2CCS863002R0647 | | 0,735 | 1 |




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 6 | 408411 | S804S-K6-R | 2CCS864002R0067 | | 0,98 | 1 |
| | 8 | 411633 | S804S-K8-R | 2CCS864002R0407 | | 0,98 | 1 |
| | 10 | 209575 | S804S-K10-R | 2CCS864002R0427 | | 0,98 | 1 |
| | 13 | 209582 | S804S-K13-R | 2CCS864002R0447 | | 0,98 | 1 |
| | 16 | 209599 | S804S-K16-R | 2CCS864002R0467 | | 0,98 | 1 |
| | 20 | 209605 | S804S-K20-R | 2CCS864002R0487 | | 0,98 | 1 |
| | 25 | 209612 | S804S-K25-R | 2CCS864002R0517 | | 0,98 | 1 |
| | 32 | 209629 | S804S-K32-R | 2CCS864002R0537 | | 0,98 | 1 |
| | 40 | 207724 | S804S-K40-R | 2CCS864002R0557 | | 0,98 | 1 |
| | 50 | 207731 | S804S-K50-R | 2CCS864002R0577 | | 0,98 | 1 |
| | 63 | 207748 | S804S-K63-R | 2CCS864002R0597 | | 0,98 | 1 |
| | 80 | 207755 | S804S-K80-R | 2CCS864002R0627 | | 0,98 | 1 |
| | 100 | 207762 | S804S-K100-R | 2CCS864002R0637 | | 0,98 | 1 |
| | 125 | 207779 | S804S-K125-R | 2CCS864002R0647 | | 0,98 | 1 |

# High performance MCBs
# S800S series 50000 with cage terminal, KM and KM-R characteristic






S803S




S804S

## S800S-KM characteristic with cage terminal

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; only magnetic version dedicated to protect motors; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 20 | 202194 | S803S-KM20 | 2CCS863001R0486 | | 0.735 | 1 |
| | 25 | 202200 | S803S-KM25 | 2CCS863001R0516 | | 0.735 | 1 |
| | 32 | 202217 | S803S-KM32 | 2CCS863001R0536 | | 0.735 | 1 |
| | 40 | 202224 | S803S-KM40 | 2CCS863001R0556 | | 0.735 | 1 |
| | 50 | 202231 | S803S-KM50 | 2CCS863001R0576 | | 0.735 | 1 |
| | 63 | 202248 | S803S-KM63 | 2CCS863001R0596 | | 0.735 | 1 |
| | 80 | 202255 | S803S-KM80 | 2CCS863001R0626 | | 0.735 | 1 |

## S800S-KM-R characteristic with ring terminal connection

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; only magnetic version dedicated to protect motors; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 20 | 210830 | S803S-KM20-R | 2CCS863002R0486 | | 0,735 | 1 |
| | 25 | 210847 | S803S-KM25-R | 2CCS863002R0516 | | 0,735 | 1 |
| | 32 | 210854 | S803S-KM32-R | 2CCS863002R0536 | | 0,735 | 1 |
| | 40 | 207786 | S803S-KM40-R | 2CCS863002R0556 | | 0,735 | 1 |
| | 50 | 207793 | S803S-KM50-R | 2CCS863002R0576 | | 0,735 | 1 |
| | 63 | 207809 | S803S-KM63-R | 2CCS863002R0596 | | 0,735 | 1 |
| | 80 | 207816 | S803S-KM80-R | 2CCS863002R0626 | | 0,735 | 1 |

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# High performance MCBs
## S800S series 50000 DC range with cage terminal, UC-B characteristic




S801S




S802S

### S800S-UCB characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**



| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 10 | 202842 | S801S-UCB10 | 2CCS861001R1105 | | 0.245 | 1 |
| | 13 | 202859 | S801S-UCB13 | 2CCS861001R1135 | | 0.245 | 1 |
| | 16 | 202866 | S801S-UCB16 | 2CCS861001R1165 | | 0.245 | 1 |
| | 20 | 202873 | S801S-UCB20 | 2CCS861001R1205 | | 0.245 | 1 |
| | 25 | 202880 | S801S-UCB25 | 2CCS861001R1255 | | 0.245 | 1 |
| | 32 | 202897 | S801S-UCB32 | 2CCS861001R1325 | | 0.245 | 1 |
| | 40 | 202903 | S801S-UCB40 | 2CCS861001R1405 | | 0.245 | 1 |
| | 50 | 202910 | S801S-UCB50 | 2CCS861001R1505 | | 0.245 | 1 |
| | 63 | 202927 | S801S-UCB63 | 2CCS861001R1635 | | 0.245 | 1 |
| | 80 | 202934 | S801S-UCB80 | 2CCS861001R1805 | | 0.245 | 1 |
| | 100 | 202941 | S801S-UCB100 | 2CCS861001R1825 | | 0.245 | 1 |
| | 125 | 202958 | S801S-UCB125 | 2CCS861001R1845 | | 0.245 | 1 |

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 202965 | S802S-UCB10 | 2CCS862001R1105 | | 0.49 | 1 |
| | 13 | 202972 | S802S-UCB13 | 2CCS862001R1135 | | 0.49 | 1 |
| | 16 | 202989 | S802S-UCB16 | 2CCS862001R1165 | | 0.49 | 1 |
| | 20 | 202996 | S802S-UCB20 | 2CCS862001R1205 | | 0.49 | 1 |
| | 25 | 203009 | S802S-UCB25 | 2CCS862001R1255 | | 0.49 | 1 |
| | 32 | 203016 | S802S-UCB32 | 2CCS862001R1325 | | 0.49 | 1 |
| | 40 | 203023 | S802S-UCB40 | 2CCS862001R1405 | | 0.49 | 1 |
| | 50 | 203030 | S802S-UCB50 | 2CCS862001R1505 | | 0.49 | 1 |
| | 63 | 203047 | S802S-UCB63 | 2CCS862001R1635 | | 0.49 | 1 |
| | 80 | 203054 | S802S-UCB80 | 2CCS862001R1805 | | 0.49 | 1 |
| | 100 | 203061 | S802S-UCB100 | 2CCS862001R1825 | | 0.49 | 1 |
| | 125 | 203078 | S802S-UCB125 | 2CCS862001R1845 | | 0.49 | 1 |

# High performance MCBs
## S800S series 50000 DC range with cage terminal, UC-B characteristic






S803S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 203085 | S803S-UCB10 | 2CCS863001R1105 | | 0.735 | 1 |
| | 13 | 203092 | S803S-UCB13 | 2CCS863001R1135 | | 0.735 | 1 |
| | 16 | 203108 | S803S-UCB16 | 2CCS863001R1165 | | 0.735 | 1 |
| | 20 | 203115 | S803S-UCB20 | 2CCS863001R1205 | | 0.735 | 1 |
| | 25 | 203122 | S803S-UCB25 | 2CCS863001R1255 | | 0.735 | 1 |
| | 32 | 203139 | S803S-UCB32 | 2CCS863001R1325 | | 0.735 | 1 |
| | 40 | 203146 | S803S-UCB40 | 2CCS863001R1405 | | 0.735 | 1 |
| | 50 | 203153 | S803S-UCB50 | 2CCS863001R1505 | | 0.735 | 1 |
| | 63 | 203160 | S803S-UCB63 | 2CCS863001R1635 | | 0.735 | 1 |
| | 80 | 203177 | S803S-UCB80 | 2CCS863001R1805 | | 0.735 | 1 |
| | 100 | 203184 | S803S-UCB100 | 2CCS863001R1825 | | 0.735 | 1 |
| | 125 | 203191 | S803S-UCB125 | 2CCS863001R1845 | | 0.735 | 1 |




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 203207 | S804S-UCB10 | 2CCS864001R1105 | | 0.98 | 1 |
| | 13 | 203214 | S804S-UCB13 | 2CCS864001R1135 | | 0.98 | 1 |
| | 16 | 203221 | S804S-UCB16 | 2CCS864001R1165 | | 0.98 | 1 |
| | 20 | 203238 | S804S-UCB20 | 2CCS864001R1205 | | 0.98 | 1 |
| | 25 | 203245 | S804S-UCB25 | 2CCS864001R1255 | | 0.98 | 1 |
| | 32 | 203252 | S804S-UCB32 | 2CCS864001R1325 | | 0.98 | 1 |
| | 40 | 203269 | S804S-UCB40 | 2CCS864001R1405 | | 0.98 | 1 |
| | 50 | 203276 | S804S-UCB50 | 2CCS864001R1505 | | 0.98 | 1 |
| | 63 | 203283 | S804S-UCB63 | 2CCS864001R1635 | | 0.98 | 1 |
| | 80 | 203290 | S804S-UCB80 | 2CCS864001R1805 | | 0.98 | 1 |
| | 100 | 203306 | S804S-UCB100 | 2CCS864001R1825 | | 0.98 | 1 |
| | 125 | 203313 | S804S-UCB125 | 2CCS864001R1845 | | 0.98 | 1 |

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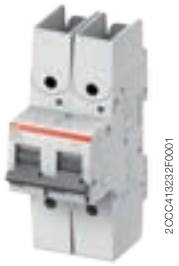
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# High performance MCBs
## S800S series 50000 DC range with ring terminal connection, UC-B characteristic




S801S




S802S

### S800S-UCB characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**



| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 10 | 210359 | S801S-UCB10-R | 2CCS861002R1105 | | 0,245 | 1 |
| | 13 | 210366 | S801S-UCB13-R | 2CCS861002R1135 | | 0,245 | 1 |
| | 16 | 210373 | S801S-UCB16-R | 2CCS861002R1165 | | 0,245 | 1 |
| | 20 | 210380 | S801S-UCB20-R | 2CCS861002R1205 | | 0,245 | 1 |
| | 25 | 210397 | S801S-UCB25-R | 2CCS861002R1255 | | 0,245 | 1 |
| | 32 | 210403 | S801S-UCB32-R | 2CCS861002R1325 | | 0,245 | 1 |
| | 40 | 208424 | S801S-UCB40-R | 2CCS861002R1405 | | 0,245 | 1 |
| | 50 | 208431 | S801S-UCB50-R | 2CCS861002R1505 | | 0,245 | 1 |
| | 63 | 208448 | S801S-UCB63-R | 2CCS861002R1635 | | 0,245 | 1 |
| | 80 | 208455 | S801S-UCB80-R | 2CCS861002R1805 | | 0,245 | 1 |
| | 100 | 208462 | S801S-UCB100-R | 2CCS861002R1825 | | 0,245 | 1 |
| | 125 | 208479 | S801S-UCB125-R | 2CCS861002R1845 | | 0,245 | 1 |

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 210410 | S802S-UCB10-R | 2CCS862002R1105 | | 0,49 | 1 |
| | 13 | 210427 | S802S-UCB13-R | 2CCS862002R1135 | | 0,49 | 1 |
| | 16 | 210434 | S802S-UCB16-R | 2CCS862002R1165 | | 0,49 | 1 |
| | 20 | 210441 | S802S-UCB20-R | 2CCS862002R1205 | | 0,49 | 1 |
| | 25 | 210458 | S802S-UCB25-R | 2CCS862002R1255 | | 0,49 | 1 |
| | 32 | 210465 | S802S-UCB32-R | 2CCS862002R1325 | | 0,49 | 1 |
| | 40 | 208486 | S802S-UCB40-R | 2CCS862002R1405 | | 0,49 | 1 |
| | 50 | 208493 | S802S-UCB50-R | 2CCS862002R1505 | | 0,49 | 1 |
| | 63 | 208509 | S802S-UCB63-R | 2CCS862002R1635 | | 0,49 | 1 |
| | 80 | 208516 | S802S-UCB80-R | 2CCS862002R1805 | | 0,49 | 1 |
| | 100 | 208523 | S802S-UCB100-R | 2CCS862002R1825 | | 0,49 | 1 |
| | 125 | 208530 | S802S-UCB125-R | 2CCS862002R1845 | | 0,49 | 1 |

# High performance MCBs
## S800S series 50000 DC range with ring terminal connection, UC-B characteristic






S803S




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 210472 | S803S-UCB10-R | 2CCS863002R1105 | | 0,735 | 1 |
| | 13 | 210489 | S803S-UCB13-R | 2CCS863002R1135 | | 0,735 | 1 |
| | 16 | 210496 | S803S-UCB16-R | 2CCS863002R1165 | | 0,735 | 1 |
| | 20 | 210502 | S803S-UCB20-R | 2CCS863002R1205 | | 0,735 | 1 |
| | 25 | 210519 | S803S-UCB25-R | 2CCS863002R1255 | | 0,735 | 1 |
| | 32 | 210526 | S803S-UCB32-R | 2CCS863002R1325 | | 0,735 | 1 |
| | 40 | 208547 | S803S-UCB40-R | 2CCS863002R1405 | | 0,735 | 1 |
| | 50 | 208554 | S803S-UCB50-R | 2CCS863002R1505 | | 0,735 | 1 |
| | 63 | 208561 | S803S-UCB63-R | 2CCS863002R1635 | | 0,735 | 1 |
| | 80 | 208578 | S803S-UCB80-R | 2CCS863002R1805 | | 0,735 | 1 |
| | 100 | 208585 | S803S-UCB100-R | 2CCS863002R1825 | | 0,735 | 1 |
| | 125 | 208592 | S803S-UCB125-R | 2CCS863002R1845 | | 0,735 | 1 |

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 210533 | S804S-UCB10-R | 2CCS864002R1105 | | 0,98 | 1 |
| | 13 | 210540 | S804S-UCB13-R | 2CCS864002R1135 | | 0,98 | 1 |
| | 16 | 210557 | S804S-UCB16-R | 2CCS864002R1165 | | 0,98 | 1 |
| | 20 | 210564 | S804S-UCB20-R | 2CCS864002R1205 | | 0,98 | 1 |
| | 25 | 210571 | S804S-UCB25-R | 2CCS864002R1255 | | 0,98 | 1 |
| | 32 | 210588 | S804S-UCB32-R | 2CCS864002R1325 | | 0,98 | 1 |
| | 40 | 208608 | S804S-UCB40-R | 2CCS864002R1405 | | 0,98 | 1 |
| | 50 | 208615 | S804S-UCB50-R | 2CCS864002R1505 | | 0,98 | 1 |
| | 63 | 208622 | S804S-UCB63-R | 2CCS864002R1635 | | 0,98 | 1 |
| | 80 | 208639 | S804S-UCB80-R | 2CCS864002R1805 | | 0,98 | 1 |
| | 100 | 208646 | S804S-UCB100-R | 2CCS864002R1825 | | 0,98 | 1 |
| | 125 | 208653 | S804S-UCB125-R | 2CCS864002R1845 | | 0,98 | 1 |

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# High performance MCBs
## S800S series 50000 DC range with cage terminal, UC-K characteristic






S801S




S802S

### S800S-UCK characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 203320 | S801S-UCK10 | 2CCS861001R1427 | | 0.245 | 1 |
| | 13 | 203337 | S801S-UCK13 | 2CCS861001R1447 | | 0.245 | 1 |
| | 16 | 203344 | S801S-UCK16 | 2CCS861001R1467 | | 0.245 | 1 |
| | 20 | 203351 | S801S-UCK20 | 2CCS861001R1487 | | 0.245 | 1 |
| | 25 | 203368 | S801S-UCK25 | 2CCS861001R1517 | | 0.245 | 1 |
| | 32 | 203375 | S801S-UCK32 | 2CCS861001R1537 | | 0.245 | 1 |
| | 40 | 203382 | S801S-UCK40 | 2CCS861001R1557 | | 0.245 | 1 |
| | 50 | 203399 | S801S-UCK50 | 2CCS861001R1577 | | 0.245 | 1 |
| | 63 | 203405 | S801S-UCK63 | 2CCS861001R1597 | | 0.245 | 1 |
| | 80 | 203412 | S801S-UCK80 | 2CCS861001R1627 | | 0.245 | 1 |
| | 100 | 203429 | S801S-UCK100 | 2CCS861001R1637 | | 0.245 | 1 |
| | 125 | 203436 | S801S-UCK125 | 2CCS861001R1647 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 203443 | S802S-UCK10 | 2CCS862001R1427 | | 0.49 | 1 |
| | 13 | 203450 | S802S-UCK13 | 2CCS862001R1447 | | 0.49 | 1 |
| | 16 | 203467 | S802S-UCK16 | 2CCS862001R1467 | | 0.49 | 1 |
| | 20 | 203474 | S802S-UCK20 | 2CCS862001R1487 | | 0.49 | 1 |
| | 25 | 203481 | S802S-UCK25 | 2CCS862001R1517 | | 0.49 | 1 |
| | 32 | 203498 | S802S-UCK32 | 2CCS862001R1537 | | 0.49 | 1 |
| | 40 | 203504 | S802S-UCK40 | 2CCS862001R1557 | | 0.49 | 1 |
| | 50 | 203511 | S802S-UCK50 | 2CCS862001R1577 | | 0.49 | 1 |
| | 63 | 203528 | S802S-UCK63 | 2CCS862001R1597 | | 0.49 | 1 |
| | 80 | 203535 | S802S-UCK80 | 2CCS862001R1627 | | 0.49 | 1 |
| | 100 | 203542 | S802S-UCK100 | 2CCS862001R1637 | | 0.49 | 1 |
| | 125 | 203559 | S802S-UCK125 | 2CCS862001R1647 | | 0.49 | 1 |

# High performance MCBs
## S800S series 50000 DC range with cage terminal, UC-K characteristic






S803S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 203566 | S803S-UCK10 | 2CCS863001R1427 | | 0.735 | 1 |
| | 13 | 203573 | S803S-UCK13 | 2CCS863001R1447 | | 0.735 | 1 |
| | 16 | 203580 | S803S-UCK16 | 2CCS863001R1467 | | 0.735 | 1 |
| | 20 | 203597 | S803S-UCK20 | 2CCS863001R1487 | | 0.735 | 1 |
| | 25 | 203603 | S803S-UCK25 | 2CCS863001R1517 | | 0.735 | 1 |
| | 32 | 203610 | S803S-UCK32 | 2CCS863001R1537 | | 0.735 | 1 |
| | 40 | 203627 | S803S-UCK40 | 2CCS863001R1557 | | 0.735 | 1 |
| | 50 | 203634 | S803S-UCK50 | 2CCS863001R1577 | | 0.735 | 1 |
| | 63 | 203641 | S803S-UCK63 | 2CCS863001R1597 | | 0.735 | 1 |
| | 80 | 203658 | S803S-UCK80 | 2CCS863001R1627 | | 0.735 | 1 |
| | 100 | 203665 | S803S-UCK100 | 2CCS863001R1637 | | 0.735 | 1 |
| | 125 | 203672 | S803S-UCK125 | 2CCS863001R1647 | | 0.735 | 1 |




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 203689 | S804S-UCK10 | 2CCS864001R1427 | | 0.98 | 1 |
| | 13 | 203696 | S804S-UCK13 | 2CCS864001R1447 | | 0.98 | 1 |
| | 16 | 203702 | S804S-UCK16 | 2CCS864001R1467 | | 0.98 | 1 |
| | 20 | 203719 | S804S-UCK20 | 2CCS864001R1487 | | 0.98 | 1 |
| | 25 | 203726 | S804S-UCK25 | 2CCS864001R1517 | | 0.98 | 1 |
| | 32 | 203733 | S804S-UCK32 | 2CCS864001R1537 | | 0.98 | 1 |
| | 40 | 203740 | S804S-UCK40 | 2CCS864001R1557 | | 0.98 | 1 |
| | 50 | 203757 | S804S-UCK50 | 2CCS864001R1577 | | 0.98 | 1 |
| | 63 | 203764 | S804S-UCK63 | 2CCS864001R1597 | | 0.98 | 1 |
| | 80 | 203771 | S804S-UCK80 | 2CCS864001R1627 | | 0.98 | 1 |
| | 100 | 203788 | S804S-UCK100 | 2CCS864001R1637 | | 0.98 | 1 |
| | 125 | 203795 | S804S-UCK125 | 2CCS864001R1647 | | 0.98 | 1 |

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# High performance MCBs
## S800S series 50000 DC range with ring terminal connection, UC-K characteristic






S801S




S802S

### S800S-UCK characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

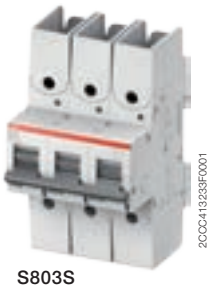
**Icu=50 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 210595 | S801S-UCK10-R | 2CCS861002R1427 | | 0,245 | 1 |
| | 13 | 210601 | S801S-UCK13-R | 2CCS861002R1447 | | 0,245 | 1 |
| | 16 | 210618 | S801S-UCK16-R | 2CCS861002R1467 | | 0,245 | 1 |
| | 20 | 210625 | S801S-UCK20-R | 2CCS861002R1487 | | 0,245 | 1 |
| | 25 | 210632 | S801S-UCK25-R | 2CCS861002R1517 | | 0,245 | 1 |
| | 32 | 210649 | S801S-UCK32-R | 2CCS861002R1537 | | 0,245 | 1 |
| | 40 | 208660 | S801S-UCK40-R | 2CCS861002R1557 | | 0,245 | 1 |
| | 50 | 208677 | S801S-UCK50-R | 2CCS861002R1577 | | 0,245 | 1 |
| | 63 | 208684 | S801S-UCK63-R | 2CCS861002R1597 | | 0,245 | 1 |
| | 80 | 208691 | S801S-UCK80-R | 2CCS861002R1627 | | 0,245 | 1 |
| | 100 | 208707 | S801S-UCK100-R | 2CCS861002R1637 | | 0,245 | 1 |
| | 125 | 208714 | S801S-UCK125-R | 2CCS861002R1647 | | 0,245 | 1 |

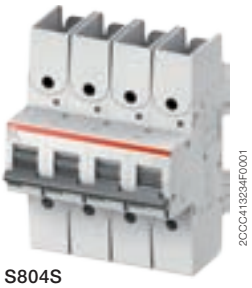
| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 210656 | S802S-UCK10-R | 2CCS862002R1427 | | 0,490 | 1 |
| | 13 | 210663 | S802S-UCK13-R | 2CCS862002R1447 | | 0,490 | 1 |
| | 16 | 210670 | S802S-UCK16-R | 2CCS862002R1467 | | 0,490 | 1 |
| | 20 | 210687 | S802S-UCK20-R | 2CCS862002R1487 | | 0,490 | 1 |
| | 25 | 210694 | S802S-UCK25-R | 2CCS862002R1517 | | 0,490 | 1 |
| | 32 | 210700 | S802S-UCK32-R | 2CCS862002R1537 | | 0,490 | 1 |
| | 40 | 208721 | S802S-UCK40-R | 2CCS862002R1557 | | 0,490 | 1 |
| | 50 | 208738 | S802S-UCK50-R | 2CCS862002R1577 | | 0,490 | 1 |
| | 63 | 208745 | S802S-UCK63-R | 2CCS862002R1597 | | 0,490 | 1 |
| | 80 | 208752 | S802S-UCK80-R | 2CCS862002R1627 | | 0,490 | 1 |
| | 100 | 208769 | S802S-UCK100-R | 2CCS862002R1637 | | 0,490 | 1 |
| | 125 | 208776 | S802S-UCK125-R | 2CCS862002R1647 | | 0,490 | 1 |

# High performance MCBs
## S800S series 50000 DC range with ring terminal connection, UC-K characteristic






S803S




S804S

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 210717 | S803S-UCK10-R | 2CCS863002R1427 | | 0,735 | 1 |
| | 13 | 210724 | S803S-UCK13-R | 2CCS863002R1447 | | 0,735 | 1 |
| | 16 | 210731 | S803S-UCK16-R | 2CCS863002R1467 | | 0,735 | 1 |
| | 20 | 210748 | S803S-UCK20-R | 2CCS863002R1487 | | 0,735 | 1 |
| | 25 | 210755 | S803S-UCK25-R | 2CCS863002R1517 | | 0,735 | 1 |
| | 32 | 210762 | S803S-UCK32-R | 2CCS863002R1537 | | 0,735 | 1 |
| | 40 | 208783 | S803S-UCK40-R | 2CCS863002R1557 | | 0,735 | 1 |
| | 50 | 208790 | S803S-UCK50-R | 2CCS863002R1577 | | 0,735 | 1 |
| | 63 | 208806 | S803S-UCK63-R | 2CCS863002R1597 | | 0,735 | 1 |
| | 80 | 208813 | S803S-UCK80-R | 2CCS863002R1627 | | 0,735 | 1 |
| | 100 | 208820 | S803S-UCK100-R | 2CCS863002R1637 | | 0,735 | 1 |
| | 125 | 208837 | S803S-UCK125-R | 2CCS863002R1647 | | 0,735 | 1 |

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 210779 | S804S-UCK10-R | 2CCS864002R1427 | | 0,98 | 1 |
| | 13 | 210786 | S804S-UCK13-R | 2CCS864002R1447 | | 0,98 | 1 |
| | 16 | 210793 | S804S-UCK16-R | 2CCS864002R1467 | | 0,98 | 1 |
| | 20 | 210809 | S804S-UCK20-R | 2CCS864002R1487 | | 0,98 | 1 |
| | 25 | 210816 | S804S-UCK25-R | 2CCS864002R1517 | | 0,98 | 1 |
| | 32 | 210823 | S804S-UCK32-R | 2CCS864002R1537 | | 0,98 | 1 |
| | 40 | 208844 | S804S-UCK40-R | 2CCS864002R1557 | | 0,98 | 1 |
| | 50 | 208851 | S804S-UCK50-R | 2CCS864002R1577 | | 0,98 | 1 |
| | 63 | 208868 | S804S-UCK63-R | 2CCS864002R1597 | | 0,98 | 1 |
| | 80 | 208875 | S804S-UCK80-R | 2CCS864002R1627 | | 0,98 | 1 |
| | 100 | 208882 | S804S-UCK100-R | 2CCS864002R1637 | | 0,98 | 1 |
| | 125 | 208899 | S804S-UCK125-R | 2CCS864002R1647 | | 0,98 | 1 |

**Where to find more:**
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# High performance MCBs
## S800N series 36000 with cage terminal, B characteristic




S801N




S802N

### S800N-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn=20 kA (10 ... 80 A)**
**Icu=36 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 203801 | S801N-B10 | 2CCS891001R0105 | | 0.24 | 1 |
| | 13 | 203818 | S801N-B13 | 2CCS891001R0135 | | 0.24 | 1 |
| | 16 | 203825 | S801N-B16 | 2CCS891001R0165 | | 0.24 | 1 |
| | 20 | 203832 | S801N-B20 | 2CCS891001R0205 | | 0.24 | 1 |
| | 25 | 203849 | S801N-B25 | 2CCS891001R0255 | | 0.24 | 1 |
| | 32 | 203856 | S801N-B32 | 2CCS891001R0325 | | 0.24 | 1 |
| | 40 | 203863 | S801N-B40 | 2CCS891001R0405 | | 0.24 | 1 |
| | 50 | 203870 | S801N-B50 | 2CCS891001R0505 | | 0.24 | 1 |
| | 63 | 203887 | S801N-B63 | 2CCS891001R0635 | | 0.24 | 1 |
| | 80 | 203894 | S801N-B80 | 2CCS891001R0805 | | 0.24 | 1 |
| | 100 | 203900 | S801N-B100 | 2CCS891001R0825 | | 0.24 | 1 |
| | 125 | 203917 | S801N-B125 | 2CCS891001R0845 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 203924 | S802N-B10 | 2CCS892001R0105 | | 0.48 | 1 |
| | 13 | 203931 | S802N-B13 | 2CCS892001R0135 | | 0.48 | 1 |
| | 16 | 203948 | S802N-B16 | 2CCS892001R0165 | | 0.48 | 1 |
| | 20 | 203955 | S802N-B20 | 2CCS892001R0205 | | 0.48 | 1 |
| | 25 | 203962 | S802N-B25 | 2CCS892001R0255 | | 0.48 | 1 |
| | 32 | 203979 | S802N-B32 | 2CCS892001R0325 | | 0.48 | 1 |
| | 40 | 203986 | S802N-B40 | 2CCS892001R0405 | | 0.48 | 1 |
| | 50 | 203993 | S802N-B50 | 2CCS892001R0505 | | 0.48 | 1 |
| | 63 | 204006 | S802N-B63 | 2CCS892001R0635 | | 0.48 | 1 |
| | 80 | 204013 | S802N-B80 | 2CCS892001R0805 | | 0.48 | 1 |
| | 100 | 204020 | S802N-B100 | 2CCS892001R0825 | | 0.48 | 1 |
| | 125 | 204037 | S802N-B125 | 2CCS892001R0845 | | 0.48 | 1 |

**Where to find more:**
Coordination tables for S 800N MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.12/162

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Auxiliary elements for S 800 MCBs p.4/56

# High performance MCBs
## S800N series 36000 with cage terminal, B characteristic






S803N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 204044 | S803N-B10 | 2CCS893001R0105 | | 0.72 | 1 |
| | 13 | 204051 | S803N-B13 | 2CCS893001R0135 | | 0.72 | 1 |
| | 16 | 204068 | S803N-B16 | 2CCS893001R0165 | | 0.72 | 1 |
| | 20 | 204075 | S803N-B20 | 2CCS893001R0205 | | 0.72 | 1 |
| | 25 | 204082 | S803N-B25 | 2CCS893001R0255 | | 0.72 | 1 |
| | 32 | 204099 | S803N-B32 | 2CCS893001R0325 | | 0.72 | 1 |
| | 40 | 204105 | S803N-B40 | 2CCS893001R0405 | | 0.72 | 1 |
| | 50 | 204112 | S803N-B50 | 2CCS893001R0505 | | 0.72 | 1 |
| | 63 | 204129 | S803N-B63 | 2CCS893001R0635 | | 0.72 | 1 |
| | 80 | 204136 | S803N-B80 | 2CCS893001R0805 | | 0.72 | 1 |
| | 100 | 204143 | S803N-B100 | 2CCS893001R0825 | | 0.72 | 1 |
| | 125 | 204150 | S803N-B125 | 2CCS893001R0845 | | 0.72 | 1 |




S804N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 204167 | S804N-B10 | 2CCS894001R0105 | | 0.96 | 1 |
| | 13 | 204174 | S804N-B13 | 2CCS894001R0135 | | 0.96 | 1 |
| | 16 | 204181 | S804N-B16 | 2CCS894001R0165 | | 0.96 | 1 |
| | 20 | 204198 | S804N-B20 | 2CCS894001R0205 | | 0.96 | 1 |
| | 25 | 204204 | S804N-B25 | 2CCS894001R0255 | | 0.96 | 1 |
| | 32 | 204211 | S804N-B32 | 2CCS894001R0325 | | 0.96 | 1 |
| | 40 | 204228 | S804N-B40 | 2CCS894001R0405 | | 0.96 | 1 |
| | 50 | 204235 | S804N-B50 | 2CCS894001R0505 | | 0.96 | 1 |
| | 63 | 204242 | S804N-B63 | 2CCS894001R0635 | | 0.96 | 1 |
| | 80 | 204259 | S804N-B80 | 2CCS894001R0805 | | 0.96 | 1 |
| | 100 | 204266 | S804N-B100 | 2CCS894001R0825 | | 0.96 | 1 |
| | 125 | 204273 | S804N-B125 | 2CCS894001R0845 | | 0.96 | 1 |

**Where to find more:**
Coordination tables for S 800 MCBs: Chapter 2 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

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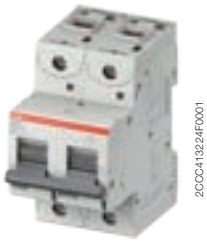
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# High performance MCBs
## S800N series 36000 with cage terminal, C characteristic






S801N




S802N

### S800N-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn=20 kA (10 ... 80 A)**
**Icu=36 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 204280 | S801N-C10 | 2CCS891001R0104 | | 0.24 | 1 |
| | 13 | 204297 | S801N-C13 | 2CCS891001R0134 | | 0.24 | 1 |
| | 16 | 204303 | S801N-C16 | 2CCS891001R0164 | | 0.24 | 1 |
| | 20 | 204310 | S801N-C20 | 2CCS891001R0204 | | 0.24 | 1 |
| | 25 | 204327 | S801N-C25 | 2CCS891001R0254 | | 0.24 | 1 |
| | 32 | 204334 | S801N-C32 | 2CCS891001R0324 | | 0.24 | 1 |
| | 40 | 204341 | S801N-C40 | 2CCS891001R0404 | | 0.24 | 1 |
| | 50 | 204358 | S801N-C50 | 2CCS891001R0504 | | 0.24 | 1 |
| | 63 | 204365 | S801N-C63 | 2CCS891001R0634 | | 0.24 | 1 |
| | 80 | 204372 | S801N-C80 | 2CCS891001R0804 | | 0.24 | 1 |
| | 100 | 204389 | S801N-C100 | 2CCS891001R0824 | | 0.24 | 1 |
| | 125 | 204396 | S801N-C125 | 2CCS891001R0844 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 204402 | S802N-C10 | 2CCS892001R0104 | | 0.48 | 1 |
| | 13 | 204419 | S802N-C13 | 2CCS892001R0134 | | 0.48 | 1 |
| | 16 | 204426 | S802N-C16 | 2CCS892001R0164 | | 0.48 | 1 |
| | 20 | 204433 | S802N-C20 | 2CCS892001R0204 | | 0.48 | 1 |
| | 25 | 204440 | S802N-C25 | 2CCS892001R0254 | | 0.48 | 1 |
| | 32 | 204457 | S802N-C32 | 2CCS892001R0324 | | 0.48 | 1 |
| | 40 | 204464 | S802N-C40 | 2CCS892001R0404 | | 0.48 | 1 |
| | 50 | 204471 | S802N-C50 | 2CCS892001R0504 | | 0.48 | 1 |
| | 63 | 204488 | S802N-C63 | 2CCS892001R0634 | | 0.48 | 1 |
| | 80 | 204495 | S802N-C80 | 2CCS892001R0804 | | 0.48 | 1 |
| | 100 | 204501 | S802N-C100 | 2CCS892001R0824 | | 0.48 | 1 |
| | 125 | 204518 | S802N-C125 | 2CCS892001R0844 | | 0.48 | 1 |

# High performance MCBs
## S800N series 36000 with cage terminal, C characteristic






S803N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 204525 | S803N-C10 | 2CCS893001R0104 | | 0.72 | 1 |
| | 13 | 204532 | S803N-C13 | 2CCS893001R0134 | | 0.72 | 1 |
| | 16 | 204549 | S803N-C16 | 2CCS893001R0164 | | 0.72 | 1 |
| | 20 | 204556 | S803N-C20 | 2CCS893001R0204 | | 0.72 | 1 |
| | 25 | 204563 | S803N-C25 | 2CCS893001R0254 | | 0.72 | 1 |
| | 32 | 204570 | S803N-C32 | 2CCS893001R0324 | | 0.72 | 1 |
| | 40 | 204587 | S803N-C40 | 2CCS893001R0404 | | 0.72 | 1 |
| | 50 | 204594 | S803N-C50 | 2CCS893001R0504 | | 0.72 | 1 |
| | 63 | 204600 | S803N-C63 | 2CCS893001R0634 | | 0.72 | 1 |
| | 80 | 204617 | S803N-C80 | 2CCS893001R0804 | | 0.72 | 1 |
| | 100 | 204624 | S803N-C100 | 2CCS893001R0824 | | 0.72 | 1 |
| | 125 | 204631 | S803N-C125 | 2CCS893001R0844 | | 0.72 | 1 |




S804N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 204648 | S804N-C10 | 2CCS894001R0104 | | 0.96 | 1 |
| | 13 | 204655 | S804N-C13 | 2CCS894001R0134 | | 0.96 | 1 |
| | 16 | 204662 | S804N-C16 | 2CCS894001R0164 | | 0.96 | 1 |
| | 20 | 204679 | S804N-C20 | 2CCS894001R0204 | | 0.96 | 1 |
| | 25 | 204686 | S804N-C25 | 2CCS894001R0254 | | 0.96 | 1 |
| | 32 | 204693 | S804N-C32 | 2CCS894001R0324 | | 0.96 | 1 |
| | 40 | 204709 | S804N-C40 | 2CCS894001R0404 | | 0.96 | 1 |
| | 50 | 204716 | S804N-C50 | 2CCS894001R0504 | | 0.96 | 1 |
| | 63 | 204723 | S804N-C63 | 2CCS894001R0634 | | 0.96 | 1 |
| | 80 | 204730 | S804N-C80 | 2CCS894001R0804 | | 0.96 | 1 |
| | 100 | 204747 | S804N-C100 | 2CCS894001R0824 | | 0.96 | 1 |
| | 125 | 204754 | S804N-C125 | 2CCS894001R0844 | | 0.96 | 1 |

**Where to find more:**
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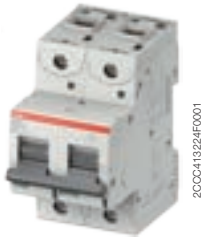
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# High performance MCBs
## S800N series 36000 with cage terminal, D characteristic






S801N




S802N

### S800N-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60898, IEC/EN 60947-2**

**Icn=20 kA (10 ... 80 A)**

**Icu=36 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 204761 | S801N-D10 | 2CCS891001R0101 | | 0.245 | 1 |
| | 13 | 204778 | S801N-D13 | 2CCS891001R0131 | | 0.245 | 1 |
| | 16 | 204785 | S801N-D16 | 2CCS891001R0161 | | 0.245 | 1 |
| | 20 | 204792 | S801N-D20 | 2CCS891001R0201 | | 0.245 | 1 |
| | 25 | 204808 | S801N-D25 | 2CCS891001R0251 | | 0.245 | 1 |
| | 32 | 204815 | S801N-D32 | 2CCS891001R0321 | | 0.245 | 1 |
| | 40 | 204822 | S801N-D40 | 2CCS891001R0401 | | 0.245 | 1 |
| | 50 | 204839 | S801N-D50 | 2CCS891001R0501 | | 0.245 | 1 |
| | 63 | 204846 | S801N-D63 | 2CCS891001R0631 | | 0.245 | 1 |
| | 80 | 204853 | S801N-D80 | 2CCS891001R0801 | | 0.245 | 1 |
| | 100 | 204860 | S801N-D100 | 2CCS891001R0821 | | 0.245 | 1 |
| | 125 | 204877 | S801N-D125 | 2CCS891001R0841 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 204884 | S802N-D10 | 2CCS892001R0101 | | 0.49 | 1 |
| | 13 | 204891 | S802N-D13 | 2CCS892001R0131 | | 0.49 | 1 |
| | 16 | 204907 | S802N-D16 | 2CCS892001R0161 | | 0.49 | 1 |
| | 20 | 204914 | S802N-D20 | 2CCS892001R0201 | | 0.49 | 1 |
| | 25 | 204921 | S802N-D25 | 2CCS892001R0251 | | 0.49 | 1 |
| | 32 | 204938 | S802N-D32 | 2CCS892001R0321 | | 0.49 | 1 |
| | 40 | 204945 | S802N-D40 | 2CCS892001R0401 | | 0.49 | 1 |
| | 50 | 204952 | S802N-D50 | 2CCS892001R0501 | | 0.49 | 1 |
| | 63 | 204969 | S802N-D63 | 2CCS892001R0631 | | 0.49 | 1 |
| | 80 | 204976 | S802N-D80 | 2CCS892001R0801 | | 0.49 | 1 |
| | 100 | 204983 | S802N-D100 | 2CCS892001R0821 | | 0.49 | 1 |
| | 125 | 204990 | S802N-D125 | 2CCS892001R0841 | | 0.49 | 1 |

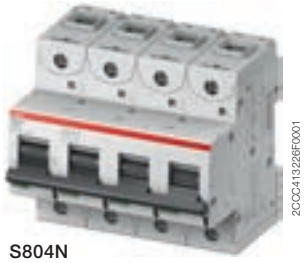
# High performance MCBs
## S800N series 36000 with cage terminal, D characteristic






S803N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 205003 | S803N-D10 | 2CCS893001R0101 | | 0.735 | 1 |
| | 13 | 205010 | S803N-D13 | 2CCS893001R0131 | | 0.735 | 1 |
| | 16 | 205027 | S803N-D16 | 2CCS893001R0161 | | 0.735 | 1 |
| | 20 | 205034 | S803N-D20 | 2CCS893001R0201 | | 0.735 | 1 |
| | 25 | 205041 | S803N-D25 | 2CCS893001R0251 | | 0.735 | 1 |
| | 32 | 205058 | S803N-D32 | 2CCS893001R0321 | | 0.735 | 1 |
| | 40 | 205065 | S803N-D40 | 2CCS893001R0401 | | 0.735 | 1 |
| | 50 | 205072 | S803N-D50 | 2CCS893001R0501 | | 0.735 | 1 |
| | 63 | 205089 | S803N-D63 | 2CCS893001R0631 | | 0.735 | 1 |
| | 80 | 205096 | S803N-D80 | 2CCS893001R0801 | | 0.735 | 1 |
| | 100 | 205102 | S803N-D100 | 2CCS893001R0821 | | 0.735 | 1 |
| | 125 | 205119 | S803N-D125 | 2CCS893001R0841 | | 0.735 | 1 |




S804N

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 205126 | S804N-D10 | 2CCS894001R0101 | | 0.98 | 1 |
| | 13 | 205133 | S804N-D13 | 2CCS894001R0131 | | 0.98 | 1 |
| | 16 | 205140 | S804N-D16 | 2CCS894001R0161 | | 0.98 | 1 |
| | 20 | 205157 | S804N-D20 | 2CCS894001R0201 | | 0.98 | 1 |
| | 25 | 205164 | S804N-D25 | 2CCS894001R0251 | | 0.98 | 1 |
| | 32 | 205171 | S804N-D32 | 2CCS894001R0321 | | 0.98 | 1 |
| | 40 | 205188 | S804N-D40 | 2CCS894001R0401 | | 0.98 | 1 |
| | 50 | 205195 | S804N-D50 | 2CCS894001R0501 | | 0.98 | 1 |
| | 63 | 205201 | S804N-D63 | 2CCS894001R0631 | | 0.98 | 1 |
| | 80 | 205218 | S804N-D80 | 2CCS894001R0801 | | 0.98 | 1 |
| | 100 | 205225 | S804N-D100 | 2CCS894001R0821 | | 0.98 | 1 |
| | 125 | 205232 | S804N-D125 | 2CCS894001R0841 | | 0.98 | 1 |

**Where to find more:**
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# High performance MCBs
## S800C series 25000 with cage terminal, B characteristic






S801C




S802C

### S800C-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, IEC/EN 60898**
**Icn=15 kA**
**Icu=25 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 212087 | S801C-B10 | 2CCS881001R0105 | | 0.245 | 1 |
| | 13 | 212247 | S801C-B13 | 2CCS881001R0135 | | 0.245 | 1 |
| | 16 | 212407 | S801C-B16 | 2CCS881001R0165 | | 0.245 | 1 |
| | 20 | 212568 | S801C-B20 | 2CCS881001R0205 | | 0.245 | 1 |
| | 25 | 212728 | S801C-B25 | 2CCS881001R0255 | | 0.245 | 1 |
| | 32 | 212889 | S801C-B32 | 2CCS881001R0325 | | 0.245 | 1 |
| | 40 | 213046 | S801C-B40 | 2CCS881001R0405 | | 0.245 | 1 |
| | 50 | 213206 | S801C-B50 | 2CCS881001R0505 | | 0.245 | 1 |
| | 63 | 213367 | S801C-B63 | 2CCS881001R0635 | | 0.245 | 1 |
| | 80 | 213527 | S801C-B80 | 2CCS881001R0805 | | 0.245 | 1 |
| | 100 | 213688 | S801C-B100 | 2CCS881001R0825 | | 0.245 | 1 |
| | 125 | 213848 | S801C-B125 | 2CCS881001R0845 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 212094 | S802C-B10 | 2CCS882001R0105 | | 0.49 | 1 |
| | 13 | 212254 | S802C-B13 | 2CCS882001R0135 | | 0.49 | 1 |
| | 16 | 212414 | S802C-B16 | 2CCS882001R0165 | | 0.49 | 1 |
| | 20 | 212575 | S802C-B20 | 2CCS882001R0205 | | 0.49 | 1 |
| | 25 | 212735 | S802C-B25 | 2CCS882001R0255 | | 0.49 | 1 |
| | 32 | 212896 | S802C-B32 | 2CCS882001R0325 | | 0.49 | 1 |
| | 40 | 213053 | S802C-B40 | 2CCS882001R0405 | | 0.49 | 1 |
| | 50 | 213213 | S802C-B50 | 2CCS882001R0505 | | 0.49 | 1 |
| | 63 | 213374 | S802C-B63 | 2CCS882001R0635 | | 0.49 | 1 |
| | 80 | 213534 | S802C-B80 | 2CCS882001R0805 | | 0.49 | 1 |
| | 100 | 213695 | S802C-B100 | 2CCS882001R0825 | | 0.49 | 1 |
| | 125 | 213855 | S802C-B125 | 2CCS882001R0845 | | 0.49 | 1 |

**Where to find more:**
Coordination tables for S 800 MCBs: Chapter 2 of
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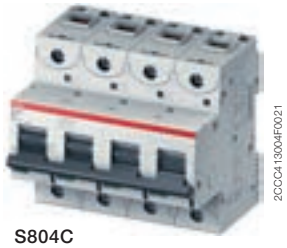
# High performance MCBs
## S800C series 25000 with cage terminal, B characteristic






S803C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 212100 | S803C-B10 | 2CCS883001R0105 | | 0.735 | 1 |
| | 13 | 212261 | S803C-B13 | 2CCS883001R0135 | | 0.735 | 1 |
| | 16 | 212421 | S803C-B16 | 2CCS883001R0165 | | 0.735 | 1 |
| | 20 | 212582 | S803C-B20 | 2CCS883001R0205 | | 0.735 | 1 |
| | 25 | 212742 | S803C-B25 | 2CCS883001R0255 | | 0.735 | 1 |
| | 32 | 212902 | S803C-B32 | 2CCS883001R0325 | | 0.735 | 1 |
| | 40 | 213060 | S803C-B40 | 2CCS883001R0405 | | 0.735 | 1 |
| | 50 | 213220 | S803C-B50 | 2CCS883001R0505 | | 0.735 | 1 |
| | 63 | 213381 | S803C-B63 | 2CCS883001R0635 | | 0.735 | 1 |
| | 80 | 213541 | S803C-B80 | 2CCS883001R0805 | | 0.735 | 1 |
| | 100 | 213701 | S803C-B100 | 2CCS883001R0825 | | 0.735 | 1 |
| | 125 | 213862 | S803C-B125 | 2CCS883001R0845 | | 0.735 | 1 |




S804C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 212117 | S804C-B10 | 2CCS884001R0105 | | 0.98 | 1 |
| | 13 | 212278 | S804C-B13 | 2CCS884001R0135 | | 0.98 | 1 |
| | 16 | 212438 | S804C-B16 | 2CCS884001R0165 | | 0.98 | 1 |
| | 20 | 212599 | S804C-B20 | 2CCS884001R0205 | | 0.98 | 1 |
| | 25 | 212759 | S804C-B25 | 2CCS884001R0255 | | 0.98 | 1 |
| | 32 | 212919 | S804C-B32 | 2CCS884001R0325 | | 0.98 | 1 |
| | 40 | 213077 | S804C-B40 | 2CCS884001R0405 | | 0.98 | 1 |
| | 50 | 213237 | S804C-B50 | 2CCS884001R0505 | | 0.98 | 1 |
| | 63 | 213398 | S804C-B63 | 2CCS884001R0635 | | 0.98 | 1 |
| | 80 | 213558 | S804C-B80 | 2CCS884001R0805 | | 0.98 | 1 |
| | 100 | 213718 | S804C-B100 | 2CCS884001R0825 | | 0.98 | 1 |
| | 125 | 213879 | S804C-B125 | 2CCS884001R0845 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800C MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56

# High performance MCBs
## S800C series 25000 with cage terminal, C characteristic




S801C




S802C

### S800C-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, IEC/EN 60898**
**Icn=15 kA**
**Icu=25 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 212124 | S801C-C10 | 2CCS881001R0104 | | 0.245 | 1 |
| | 13 | 212285 | S801C-C13 | 2CCS881001R0134 | | 0.245 | 1 |
| | 16 | 212445 | S801C-C16 | 2CCS881001R0164 | | 0.245 | 1 |
| | 20 | 212605 | S801C-C20 | 2CCS881001R0204 | | 0.245 | 1 |
| | 25 | 212766 | S801C-C25 | 2CCS881001R0254 | | 0.245 | 1 |
| | 32 | 212926 | S801C-C32 | 2CCS881001R0324 | | 0.245 | 1 |
| | 40 | 213084 | S801C-C40 | 2CCS881001R0404 | | 0.245 | 1 |
| | 50 | 213244 | S801C-C50 | 2CCS881001R0504 | | 0.245 | 1 |
| | 63 | 213404 | S801C-C63 | 2CCS881001R0634 | | 0.245 | 1 |
| | 80 | 213565 | S801C-C80 | 2CCS881001R0804 | | 0.245 | 1 |
| | 100 | 213725 | S801C-C100 | 2CCS881001R0824 | | 0.245 | 1 |
| | 125 | 213886 | S801C-C125 | 2CCS881001R0844 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 212131 | S802C-C10 | 2CCS882001R0104 | | 0.49 | 1 |
| | 13 | 212292 | S802C-C13 | 2CCS882001R0134 | | 0.49 | 1 |
| | 16 | 212452 | S802C-C16 | 2CCS882001R0164 | | 0.49 | 1 |
| | 20 | 212612 | S802C-C20 | 2CCS882001R0204 | | 0.49 | 1 |
| | 25 | 212773 | S802C-C25 | 2CCS882001R0254 | | 0.49 | 1 |
| | 32 | 212933 | S802C-C32 | 2CCS882001R0324 | | 0.49 | 1 |
| | 40 | 213091 | S802C-C40 | 2CCS882001R0404 | | 0.49 | 1 |
| | 50 | 213251 | S802C-C50 | 2CCS882001R0504 | | 0.49 | 1 |
| | 63 | 213411 | S802C-C63 | 2CCS882001R0634 | | 0.49 | 1 |
| | 80 | 213572 | S802C-C80 | 2CCS882001R0804 | | 0.49 | 1 |
| | 100 | 213732 | S802C-C100 | 2CCS882001R0824 | | 0.49 | 1 |
| | 125 | 213893 | S802C-C125 | 2CCS882001R0844 | | 0.49 | 1 |

# High performance MCBs
## S800C series 25000 with cage terminal, C characteristic






S803C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 212148 | S803C-C10 | 2CCS883001R0104 | | 0.735 | 1 |
| | 13 | 212308 | S803C-C13 | 2CCS883001R0134 | | 0.735 | 1 |
| | 16 | 212469 | S803C-C16 | 2CCS883001R0164 | | 0.735 | 1 |
| | 20 | 212629 | S803C-C20 | 2CCS883001R0204 | | 0.735 | 1 |
| | 25 | 212780 | S803C-C25 | 2CCS883001R0254 | | 0.735 | 1 |
| | 32 | 212940 | S803C-C32 | 2CCS883001R0324 | | 0.735 | 1 |
| | 40 | 213107 | S803C-C40 | 2CCS883001R0404 | | 0.735 | 1 |
| | 50 | 213268 | S803C-C50 | 2CCS883001R0504 | | 0.735 | 1 |
| | 63 | 213428 | S803C-C63 | 2CCS883001R0634 | | 0.735 | 1 |
| | 80 | 213589 | S803C-C80 | 2CCS883001R0804 | | 0.735 | 1 |
| | 100 | 213749 | S803C-C100 | 2CCS883001R0824 | | 0.735 | 1 |
| | 125 | 213909 | S803C-C125 | 2CCS883001R0844 | | 0.735 | 1 |




S804C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 212155 | S804C-C10 | 2CCS884001R0104 | | 0.98 | 1 |
| | 13 | 212315 | S804C-C13 | 2CCS884001R0134 | | 0.98 | 1 |
| | 16 | 212476 | S804C-C16 | 2CCS884001R0164 | | 0.98 | 1 |
| | 20 | 212636 | S804C-C20 | 2CCS884001R0204 | | 0.98 | 1 |
| | 25 | 212797 | S804C-C25 | 2CCS884001R0254 | | 0.98 | 1 |
| | 32 | 212957 | S804C-C32 | 2CCS884001R0324 | | 0.98 | 1 |
| | 40 | 213114 | S804C-C40 | 2CCS884001R0404 | | 0.98 | 1 |
| | 50 | 213275 | S804C-C50 | 2CCS884001R0504 | | 0.98 | 1 |
| | 63 | 213435 | S804C-C63 | 2CCS884001R0634 | | 0.98 | 1 |
| | 80 | 213596 | S804C-C80 | 2CCS884001R0804 | | 0.98 | 1 |
| | 100 | 213756 | S804C-C100 | 2CCS884001R0824 | | 0.98 | 1 |
| | 125 | 213916 | S804C-C125 | 2CCS884001R0844 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800C MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56

# High performance MCBs
## S800C series 25000 with cage terminal, D characteristic






S801C

### S800C-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, IEC/EN 60898**
**Icn=15kA**
**Icu=25 kA**




S802C

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 212162 | S801C-D10 | 2CCS881001R0101 | | 0.245 | 1 |
| | 13 | 212322 | S801C-D13 | 2CCS881001R0131 | | 0.245 | 1 |
| | 16 | 212483 | S801C-D16 | 2CCS881001R0161 | | 0.245 | 1 |
| | 20 | 212643 | S801C-D20 | 2CCS881001R0201 | | 0.245 | 1 |
| | 25 | 212803 | S801C-D25 | 2CCS881001R0251 | | 0.245 | 1 |
| | 32 | 212964 | S801C-D32 | 2CCS881001R0321 | | 0.245 | 1 |
| | 40 | 213121 | S801C-D40 | 2CCS881001R0401 | | 0.245 | 1 |
| | 50 | 213282 | S801C-D50 | 2CCS881001R0501 | | 0.245 | 1 |
| | 63 | 213442 | S801C-D63 | 2CCS881001R0631 | | 0.245 | 1 |
| | 80 | 213602 | S801C-D80 | 2CCS881001R0801 | | 0.245 | 1 |
| | 100 | 213763 | S801C-D100 | 2CCS881001R0821 | | 0.245 | 1 |
| | 125 | 213923 | S801C-D125 | 2CCS881001R0841 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 212179 | S802C-D10 | 2CCS882001R0101 | | 0.49 | 1 |
| | 13 | 212339 | S802C-D13 | 2CCS882001R0131 | | 0.49 | 1 |
| | 16 | 212490 | S802C-D16 | 2CCS882001R0161 | | 0.49 | 1 |
| | 20 | 212650 | S802C-D20 | 2CCS882001R0201 | | 0.49 | 1 |
| | 25 | 212810 | S802C-D25 | 2CCS882001R0251 | | 0.49 | 1 |
| | 32 | 212971 | S802C-D32 | 2CCS882001R0321 | | 0.49 | 1 |
| | 40 | 213138 | S802C-D40 | 2CCS882001R0401 | | 0.49 | 1 |
| | 50 | 213299 | S802C-D50 | 2CCS882001R0501 | | 0.49 | 1 |
| | 63 | 213459 | S802C-D63 | 2CCS882001R0631 | | 0.49 | 1 |
| | 80 | 213619 | S802C-D80 | 2CCS882001R0801 | | 0.49 | 1 |
| | 100 | 213770 | S802C-D100 | 2CCS882001R0821 | | 0.49 | 1 |
| | 125 | 213930 | S802C-D125 | 2CCS882001R0841 | | 0.49 | 1 |

# High performance MCBs
## S800C series 25000 with cage terminal, D characteristic






S803C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 212186 | S803C-D10 | 2CCS883001R0101 | | 0.735 | 1 |
| | 13 | 212346 | S803C-D13 | 2CCS883001R0131 | | 0.735 | 1 |
| | 16 | 212506 | S803C-D16 | 2CCS883001R0161 | | 0.735 | 1 |
| | 20 | 212667 | S803C-D20 | 2CCS883001R0201 | | 0.735 | 1 |
| | 25 | 212827 | S803C-D25 | 2CCS883001R0251 | | 0.735 | 1 |
| | 32 | 212988 | S803C-D32 | 2CCS883001R0321 | | 0.735 | 1 |
| | 40 | 213145 | S803C-D40 | 2CCS883001R0401 | | 0.735 | 1 |
| | 50 | 213305 | S803C-D50 | 2CCS883001R0501 | | 0.735 | 1 |
| | 63 | 213466 | S803C-D63 | 2CCS883001R0631 | | 0.735 | 1 |
| | 80 | 213626 | S803C-D80 | 2CCS883001R0801 | | 0.735 | 1 |
| | 100 | 213787 | S803C-D100 | 2CCS883001R0821 | | 0.735 | 1 |
| | 125 | 213947 | S803C-D125 | 2CCS883001R0841 | | 0.735 | 1 |




S804C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 212193 | S804C-D10 | 2CCS884001R0101 | | 0.98 | 1 |
| | 13 | 212353 | S804C-D13 | 2CCS884001R0131 | | 0.98 | 1 |
| | 16 | 212513 | S804C-D16 | 2CCS884001R0161 | | 0.98 | 1 |
| | 20 | 212674 | S804C-D20 | 2CCS884001R0201 | | 0.98 | 1 |
| | 25 | 212834 | S804C-D25 | 2CCS884001R0251 | | 0.98 | 1 |
| | 32 | 212995 | S804C-D32 | 2CCS884001R0321 | | 0.98 | 1 |
| | 40 | 213152 | S804C-D40 | 2CCS884001R0401 | | 0.98 | 1 |
| | 50 | 213312 | S804C-D50 | 2CCS884001R0501 | | 0.98 | 1 |
| | 63 | 213473 | S804C-D63 | 2CCS884001R0631 | | 0.98 | 1 |
| | 80 | 213633 | S804C-D80 | 2CCS884001R0801 | | 0.98 | 1 |
| | 100 | 213794 | S804C-D100 | 2CCS884001R0821 | | 0.98 | 1 |
| | 125 | 213954 | S804C-D125 | 2CCS884001R0841 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800C MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56

# High performance MCBs
## S800C series 25000 with cage terminal, K characteristic



S801C



S802C

### S800C-K characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu=25 kA**

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 10 | 212209 | S801C-K10 | 2CCS881001R0427 | | 0.245 | 1 |
| | 13 | 212360 | S801C-K13 | 2CCS881001R0447 | | 0.245 | 1 |
| | 16 | 212520 | S801C-K16 | 2CCS881001R0467 | | 0.245 | 1 |
| | 20 | 212681 | S801C-K20 | 2CCS881001R0487 | | 0.245 | 1 |
| | 25 | 212841 | S801C-K25 | 2CCS881001R0517 | | 0.245 | 1 |
| | 32 | 213008 | S801C-K32 | 2CCS881001R0537 | | 0.245 | 1 |
| | 40 | 213169 | S801C-K40 | 2CCS881001R0557 | | 0.245 | 1 |
| | 50 | 213329 | S801C-K50 | 2CCS881001R0577 | | 0.245 | 1 |
| | 63 | 213480 | S801C-K63 | 2CCS881001R0597 | | 0.245 | 1 |
| | 80 | 213640 | S801C-K80 | 2CCS881001R0627 | | 0.245 | 1 |
| | 100 | 213800 | S801C-K100 | 2CCS881001R0637 | | 0.245 | 1 |
| | 125 | 213961 | S801C-K125 | 2CCS881001R0647 | | 0.245 | 1 |

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 212216 | S802C-K10 | 2CCS882001R0427 | | 0.49 | 1 |
| | 13 | 212377 | S802C-K13 | 2CCS882001R0447 | | 0.49 | 1 |
| | 16 | 212537 | S802C-K16 | 2CCS882001R0467 | | 0.49 | 1 |
| | 20 | 212698 | S802C-K20 | 2CCS882001R0487 | | 0.49 | 1 |
| | 25 | 212858 | S802C-K25 | 2CCS882001R0517 | | 0.49 | 1 |
| | 32 | 213015 | S802C-K32 | 2CCS882001R0537 | | 0.49 | 1 |
| | 40 | 213176 | S802C-K40 | 2CCS882001R0557 | | 0.49 | 1 |
| | 50 | 213336 | S802C-K50 | 2CCS882001R0577 | | 0.49 | 1 |
| | 63 | 213497 | S802C-K63 | 2CCS882001R0597 | | 0.49 | 1 |
| | 80 | 213657 | S802C-K80 | 2CCS882001R0627 | | 0.49 | 1 |
| | 100 | 213817 | S802C-K100 | 2CCS882001R0637 | | 0.49 | 1 |
| | 125 | 213978 | S802C-K125 | 2CCS882001R0647 | | 0.49 | 1 |

# High performance MCBs
## S800C series 25000 with cage terminal, K characteristic






S803C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 212223 | S803C-K10 | 2CCS883001R0427 | | 0.735 | 1 |
| | 13 | 212384 | S803C-K13 | 2CCS883001R0447 | | 0.735 | 1 |
| | 16 | 212544 | S803C-K16 | 2CCS883001R0467 | | 0.735 | 1 |
| | 20 | 212704 | S803C-K20 | 2CCS883001R0487 | | 0.735 | 1 |
| | 25 | 212865 | S803C-K25 | 2CCS883001R0517 | | 0.735 | 1 |
| | 32 | 213022 | S803C-K32 | 2CCS883001R0537 | | 0.735 | 1 |
| | 40 | 213183 | S803C-K40 | 2CCS883001R0557 | | 0.735 | 1 |
| | 50 | 213343 | S803C-K50 | 2CCS883001R0577 | | 0.735 | 1 |
| | 63 | 213503 | S803C-K63 | 2CCS883001R0597 | | 0.735 | 1 |
| | 80 | 213664 | S803C-K80 | 2CCS883001R0627 | | 0.735 | 1 |
| | 100 | 213824 | S803C-K100 | 2CCS883001R0637 | | 0.735 | 1 |
| | 125 | 213985 | S803C-K125 | 2CCS883001R0647 | | 0.735 | 1 |




S804C

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 212230 | S804C-K10 | 2CCS884001R0427 | | 0.98 | 1 |
| | 13 | 212391 | S804C-K13 | 2CCS884001R0447 | | 0.98 | 1 |
| | 16 | 212551 | S804C-K16 | 2CCS884001R0467 | | 0.98 | 1 |
| | 20 | 212711 | S804C-K20 | 2CCS884001R0487 | | 0.98 | 1 |
| | 25 | 212872 | S804C-K25 | 2CCS884001R0517 | | 0.98 | 1 |
| | 32 | 213039 | S804C-K32 | 2CCS884001R0537 | | 0.98 | 1 |
| | 40 | 213190 | S804C-K40 | 2CCS884001R0557 | | 0.98 | 1 |
| | 50 | 213350 | S804C-K50 | 2CCS884001R0577 | | 0.98 | 1 |
| | 63 | 213510 | S804C-K63 | 2CCS884001R0597 | | 0.98 | 1 |
| | 80 | 213671 | S804C-K80 | 2CCS884001R0627 | | 0.98 | 1 |
| | 100 | 213831 | S804C-K100 | 2CCS884001R0637 | | 0.98 | 1 |
| | 125 | 213992 | S804C-K125 | 2CCS884001R0647 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800C MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
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# High performance MCBs
## S800B series 16000 with cage terminal, B characteristic





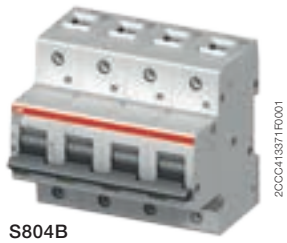

S801B




S802B




S803B




S804B

**Where to find more:**
Back-up coordination tables for S 800B MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration? You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56

### S800B-B characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, EN 60898**
**Icn=10kA**
**Icu=16 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 32 | 415303 | S801B-B32 | 2CCS811001R0325 | | 0.24 | 1 |
| | 40 | 416539 | S801B-B40 | 2CCS811001R0405 | | 0.24 | 1 |
| | 50 | 416577 | S801B-B50 | 2CCS811001R0505 | | 0.24 | 1 |
| | 63 | 416614 | S801B-B63 | 2CCS811001R0635 | | 0.24 | 1 |
| | 80 | 416652 | S801B-B80 | 2CCS811001R0805 | | 0.24 | 1 |
| | 100 | 416690 | S801B-B100 | 2CCS811001R0825 | | 0.24 | 1 |
| | 125 | 416737 | S801B-B125 | 2CCS811001R0845 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 416508 | S802B-B32 | 2CCS812001R0325 | | 0.49 | 1 |
| | 40 | 416546 | S802B-B40 | 2CCS812001R0405 | | 0.49 | 1 |
| | 50 | 416584 | S802B-B50 | 2CCS812001R0505 | | 0.49 | 1 |
| | 63 | 416621 | S802B-B63 | 2CCS812001R0635 | | 0.49 | 1 |
| | 80 | 416669 | S802B-B80 | 2CCS812001R0805 | | 0.49 | 1 |
| | 100 | 416706 | S802B-B100 | 2CCS812001R0825 | | 0.49 | 1 |
| | 125 | 416744 | S802B-B125 | 2CCS812001R0845 | | 0.49 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 32 | 416515 | S803B-B32 | 2CCS813001R0325 | | 0.74 | 1 |
| | 40 | 416553 | S803B-B40 | 2CCS813001R0405 | | 0.74 | 1 |
| | 50 | 416591 | S803B-B50 | 2CCS813001R0505 | | 0.74 | 1 |
| | 63 | 416638 | S803B-B63 | 2CCS813001R0635 | | 0.74 | 1 |
| | 80 | 416676 | S803B-B80 | 2CCS813001R0805 | | 0.74 | 1 |
| | 100 | 416713 | S803B-B100 | 2CCS813001R0825 | | 0.74 | 1 |
| | 125 | 416751 | S803B-B125 | 2CCS813001R0845 | | 0.74 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 32 | 416522 | S804B-B32 | 2CCS814001R0325 | | 0.98 | 1 |
| | 40 | 416560 | S804B-B40 | 2CCS814001R0405 | | 0.98 | 1 |
| | 50 | 416607 | S804B-B50 | 2CCS814001R0505 | | 0.98 | 1 |
| | 63 | 416645 | S804B-B63 | 2CCS814001R0635 | | 0.98 | 1 |
| | 80 | 416683 | S804B-B80 | 2CCS814001R0805 | | 0.98 | 1 |
| | 100 | 416720 | S804B-B100 | 2CCS814001R0825 | | 0.98 | 1 |
| | 125 | 416768 | S804B-B125 | 2CCS814001R0845 | | 0.98 | 1 |

# High performance MCBs
## S800B series 16000 with cage terminal, C characteristic

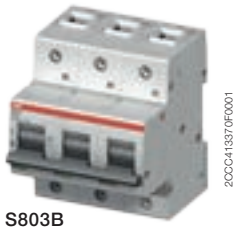




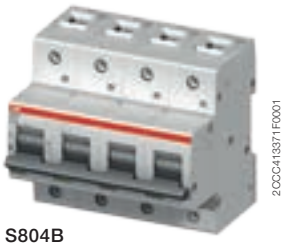
S801B



S802B



S803B



S804B

### S800B-C characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, EN 60898**
**Icn=10kA**
**Icu=16 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 32 | 16225 | S801B-C32 | 2CCS811001R0324 | | 0.24 | 1 |
| | 40 | 16263 | S801B-C40 | 2CCS811001R0404 | | 0.24 | 1 |
| | 50 | 16300 | S801B-C50 | 2CCS811001R0504 | | 0.24 | 1 |
| | 63 | 16348 | S801B-C63 | 2CCS811001R0634 | | 0.24 | 1 |
| | 80 | 16386 | S801B-C80 | 2CCS811001R0804 | | 0.24 | 1 |
| | 100 | 16423 | S801B-C100 | 2CCS811001R0824 | | 0.24 | 1 |
| | 125 | 16461 | S801B-C125 | 2CCS811001R0844 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 16232 | S802B-C32 | 2CCS812001R0324 | | 0.49 | 1 |
| | 40 | 16270 | S802B-C40 | 2CCS812001R0404 | | 0.49 | 1 |
| | 50 | 16317 | S802B-C50 | 2CCS812001R0504 | | 0.49 | 1 |
| | 63 | 16355 | S802B-C63 | 2CCS812001R0634 | | 0.49 | 1 |
| | 80 | 16393 | S802B-C80 | 2CCS812001R0804 | | 0.49 | 1 |
| | 100 | 16430 | S802B-C100 | 2CCS812001R0824 | | 0.49 | 1 |
| | 125 | 16478 | S802B-C125 | 2CCS812001R0844 | | 0.49 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 32 | 16249 | S803B-C32 | 2CCS813001R0324 | | 0.74 | 1 |
| | 40 | 16287 | S803B-C40 | 2CCS813001R0404 | | 0.74 | 1 |
| | 50 | 16324 | S803B-C50 | 2CCS813001R0504 | | 0.74 | 1 |
| | 63 | 16362 | S803B-C63 | 2CCS813001R0634 | | 0.74 | 1 |
| | 80 | 16409 | S803B-C80 | 2CCS813001R0804 | | 0.74 | 1 |
| | 100 | 16447 | S803B-C100 | 2CCS813001R0824 | | 0.74 | 1 |
| | 125 | 16485 | S803B-C125 | 2CCS813001R0844 | | 0.74 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 32 | 16256 | S804B-C32 | 2CCS814001R0324 | | 0.98 | 1 |
| | 40 | 16294 | S804B-C40 | 2CCS814001R0404 | | 0.98 | 1 |
| | 50 | 16331 | S804B-C50 | 2CCS814001R0504 | | 0.98 | 1 |
| | 63 | 16379 | S804B-C63 | 2CCS814001R0634 | | 0.98 | 1 |
| | 80 | 16416 | S804B-C80 | 2CCS814001R0804 | | 0.98 | 1 |
| | 100 | 16454 | S804B-C100 | 2CCS814001R0824 | | 0.98 | 1 |
| | 125 | 16492 | S804B-C125 | 2CCS814001R0844 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800B MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
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# High performance MCBs
## S800B series 16000 with cage terminal, D characteristic





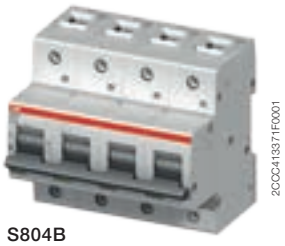

S801B




S802B




S803B




S804B

### S800B-D characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, EN 60898**

**Icn=10kA**

**Icu=16 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 32 | 15945 | S801B-D32 | 2CCS811001R0321 | | 0.24 | 1 |
| | 40 | 15983 | S801B-D40 | 2CCS811001R0401 | | 0.24 | 1 |
| | 50 | 16027 | S801B-D50 | 2CCS811001R0501 | | 0.24 | 1 |
| | 63 | 16065 | S801B-D63 | 2CCS811001R0631 | | 0.24 | 1 |
| | 80 | 16102 | S801B-D80 | 2CCS811001R0801 | | 0.24 | 1 |
| | 100 | 16140 | S801B-D100 | 2CCS811001R0821 | | 0.24 | 1 |
| | 125 | 16188 | S801B-D125 | 2CCS811001R0841 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 15952 | S802B-D32 | 2CCS812001R0321 | | 0.49 | 1 |
| | 40 | 15990 | S802B-D40 | 2CCS812001R0401 | | 0.49 | 1 |
| | 50 | 16034 | S802B-D50 | 2CCS812001R0501 | | 0.49 | 1 |
| | 63 | 16072 | S802B-D63 | 2CCS812001R0631 | | 0.49 | 1 |
| | 80 | 16119 | S802B-D80 | 2CCS812001R0801 | | 0.49 | 1 |
| | 100 | 16157 | S802B-D100 | 2CCS812001R0821 | | 0.49 | 1 |
| | 125 | 16195 | S802B-D125 | 2CCS812001R0841 | | 0.49 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 32 | 15969 | S803B-D32 | 2CCS813001R0321 | | 0.74 | 1 |
| | 40 | 16003 | S803B-D40 | 2CCS813001R0401 | | 0.74 | 1 |
| | 50 | 16041 | S803B-D50 | 2CCS813001R0501 | | 0.74 | 1 |
| | 63 | 16089 | S803B-D63 | 2CCS813001R0631 | | 0.74 | 1 |
| | 80 | 16126 | S803B-D80 | 2CCS813001R0801 | | 0.74 | 1 |
| | 100 | 16164 | S803B-D100 | 2CCS813001R0821 | | 0.74 | 1 |
| | 125 | 16201 | S803B-D125 | 2CCS813001R0841 | | 0.74 | 1 |

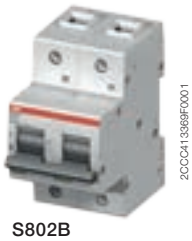
| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 32 | 15976 | S804B-D32 | 2CCS814001R0321 | | 0.98 | 1 |
| | 40 | 16010 | S804B-D40 | 2CCS814001R0401 | | 0.98 | 1 |
| | 50 | 16058 | S804B-D50 | 2CCS814001R0501 | | 0.98 | 1 |
| | 63 | 16096 | S804B-D63 | 2CCS814001R0631 | | 0.98 | 1 |
| | 80 | 16133 | S804B-D80 | 2CCS814001R0801 | | 0.98 | 1 |
| | 100 | 16171 | S804B-D100 | 2CCS814001R0821 | | 0.98 | 1 |
| | 125 | 16218 | S804B-D125 | 2CCS814001R0841 | | 0.98 | 1 |

# High performance MCBs
## S800B series 16000 with cage terminal, K characteristic





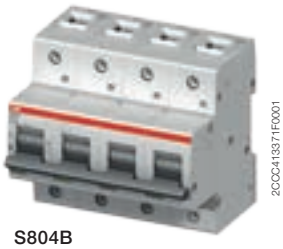

S801B




S802B




S803B




S804B

**Where to find more:**
Back-up coordination tables for S 800B MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration? You can find all of thems on www.abb.com

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### S800B-K characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

**Applications: commercial and industrial.**
**Standard: IEC/EN 60947-2, EN 60898**
**Icn=10kA**
**Icu=16 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 32 | 15600 | S801B-K32 | 2CCS811001R0537 | | 0.24 | 1 |
| | 40 | 15723 | S801B-K40 | 2CCS811001R0557 | | 0.24 | 1 |
| | 50 | 15730 | S801B-K50 | 2CCS811001R0577 | | 0.24 | 1 |
| | 63 | 15778 | S801B-K63 | 2CCS811001R0597 | | 0.24 | 1 |
| | 80 | 15815 | S801B-K80 | 2CCS811001R0627 | | 0.24 | 1 |
| | 100 | 15860 | S801B-K100 | 2CCS811001R0637 | | 0.24 | 1 |
| | 125 | 15907 | S801B-K125 | 2CCS811001R0647 | | 0.24 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 15709 | S802B-K32 | 2CCS812001R0537 | | 0.49 | 1 |
| | 40 | 16775 | S802B-K40 | 2CCS812001R0557 | | 0.49 | 1 |
| | 50 | 15747 | S802B-K50 | 2CCS812001R0577 | | 0.49 | 1 |
| | 63 | 15785 | S802B-K63 | 2CCS812001R0597 | | 0.49 | 1 |
| | 80 | 15822 | S802B-K80 | 2CCS812001R0627 | | 0.49 | 1 |
| | 100 | 15877 | S802B-K100 | 2CCS812001R0637 | | 0.49 | 1 |
| | 125 | 15914 | S802B-K125 | 2CCS812001R0647 | | 0.49 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 32 | 15716 | S803B-K32 | 2CCS813001R0537 | | 0.74 | 1 |
| | 40 | 16799 | S803B-K40 | 2CCS813001R0557 | | 0.74 | 1 |
| | 50 | 15754 | S803B-K50 | 2CCS813001R0577 | | 0.74 | 1 |
| | 63 | 15792 | S803B-K63 | 2CCS813001R0597 | | 0.74 | 1 |
| | 80 | 15846 | S803B-K80 | 2CCS813001R0627 | | 0.74 | 1 |
| | 100 | 15884 | S803B-K100 | 2CCS813001R0637 | | 0.74 | 1 |
| | 125 | 15921 | S803B-K125 | 2CCS813001R0647 | | 0.74 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 32 | 16805 | S804B-K32 | 2CCS814001R0537 | | 0.98 | 1 |
| | 40 | 16812 | S804B-K40 | 2CCS814001R0557 | | 0.98 | 1 |
| | 50 | 15761 | S804B-K50 | 2CCS814001R0577 | | 0.98 | 1 |
| | 63 | 15808 | S804B-K63 | 2CCS814001R0597 | | 0.98 | 1 |
| | 80 | 15853 | S804B-K80 | 2CCS814001R0627 | | 0.98 | 1 |
| | 100 | 15891 | S804B-K100 | 2CCS814001R0637 | | 0.98 | 1 |
| | 125 | 15938 | S804B-K125 | 2CCS814001R0647 | | 0.98 | 1 |

# High performance MCBs
## S800HV series for application up to 1000V AC, K characteristics

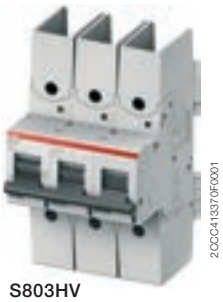





S801HV




S802HV




S803HV

### S800HV-K characteristics

Function: protection and control of the circuits against overloads and short-circuits. With its Function: S800HV is designed for voltages up to 580/1000 V AC. Due to the high rated operational voltage, the field of application is wide – from underground mining to distributions on high altitudes.

**Applications: Industrial**

**Standard: IEC/EN 60947-2**

**Icu 4 kA (6 ... 63 A); 3 kA (80 ... 125 A)**

| Icu | Rated current | Bbn 76122714 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| [kA] | [A] | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 36445 | S801HV-K6 | 2CCF019005R0001 | | 0.27 | 1 |
| 4 | 8 | 36964 | S801HV-K8 | 2CCF019006R0001 | | 0.27 | 1 |
| 4 | 10 | 36452 | S801HV-K10 | 2CCF019007R0001 | | 0.27 | 1 |
| 4 | 13 | 36469 | S801HV-K13 | 2CCF019008R0001 | | 0.27 | 1 |
| 4 | 16 | 36476 | S801HV-K16 | 2CCF019009R0001 | | 0.27 | 1 |
| 4 | 20 | 36483 | S801HV-K20 | 2CCF019010R0001 | | 0.27 | 1 |
| 4 | 25 | 36490 | S801HV-K25 | 2CCF019011R0001 | | 0.27 | 1 |
| 4 | 32 | 36605 | S801HV-K32 | 2CCF019012R0001 | | 0.27 | 1 |
| 4 | 40 | 36612 | S801HV-K40 | 2CCF019013R0001 | | 0.27 | 1 |
| 4 | 50 | 36629 | S801HV-K50 | 2CCF019014R0001 | | 0.27 | 1 |
| 4 | 63 | 36636 | S801HV-K63 | 2CCF019015R0001 | | 0.27 | 1 |
| 3 | 80 | 36643 | S801HV-K80 | 2CCF019016R0001 | | 0.27 | 1 |
| 3 | 100 | 36650 | S801HV-K100 | 2CCF019017R0001 | | 0.27 | 1 |
| 3 | 125 | 36667 | S801HV-K125 | 2CCF019018R0001 | | 0.27 | 1 |

| Icu | Rated current | Bbn 76122714 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| [kA] | [A] | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 36674 | S802HV-K6 | 2CCF019019R0001 | | 0.54 | 1 |
| 4 | 8 | 36681 | S802HV-K8 | 2CCF019020R0001 | | 0.54 | 1 |
| 4 | 10 | 36698 | S802HV-K10 | 2CCF019021R0001 | | 0.54 | 1 |
| 4 | 13 | 36704 | S802HV-K13 | 2CCF019022R0001 | | 0.54 | 1 |
| 4 | 16 | 36711 | S802HV-K16 | 2CCF019023R0001 | | 0.54 | 1 |
| 4 | 20 | 36728 | S802HV-K20 | 2CCF019024R0001 | | 0.54 | 1 |
| 4 | 25 | 36742 | S802HV-K25 | 2CCF019025R0001 | | 0.54 | 1 |
| 4 | 32 | 36759 | S802HV-K32 | 2CCF019026R0001 | | 0.54 | 1 |
| 4 | 40 | 36766 | S802HV-K40 | 2CCF019027R0001 | | 0.54 | 1 |
| 4 | 50 | 36773 | S802HV-K50 | 2CCF019028R0001 | | 0.54 | 1 |
| 4 | 63 | 36780 | S802HV-K63 | 2CCF019029R0001 | | 0.54 | 1 |
| 3 | 80 | 36797 | S802HV-K80 | 2CCF019030R0001 | | 0.54 | 1 |
| 3 | 100 | 36803 | S802HV-K100 | 2CCF019031R0001 | | 0.54 | 1 |
| 3 | 125 | 36810 | S802HV-K125 | 2CCF019032R0001 | | 0.54 | 1 |

**Where to find more:**
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**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
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**Maybe you are also interested in:**
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# High performance MCBs
## S800HV series for application up to 1000V AC, K characteristics

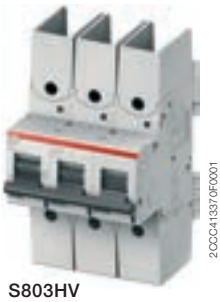





**S801HV**




**S802HV**




**S803HV**

| Icu | Rated current | Bbn 76122714 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| [kA] | [A] | EAN | Type code | Order code | | kg | pc. |
| 4 | 6 | 36827 | S803HV-K6 | 2CCF019033R0001 | | 0.81 | 1 |
| 4 | 8 | 36834 | S803HV-K8 | 2CCF019034R0001 | | 0.81 | 1 |
| 4 | 10 | 36841 | S803HV-K10 | 2CCF019035R0001 | | 0.81 | 1 |
| 4 | 13 | 36858 | S803HV-K13 | 2CCF019036R0001 | | 0.81 | 1 |
| 4 | 16 | 36865 | S803HV-K16 | 2CCF019037R0001 | | 0.81 | 1 |
| 4 | 20 | 36872 | S803HV-K20 | 2CCF019038R0001 | | 0.81 | 1 |
| 4 | 25 | 36889 | S803HV-K25 | 2CCF019039R0001 | | 0.81 | 1 |
| 4 | 32 | 36896 | S803HV-K32 | 2CCF019040R0001 | | 0.81 | 1 |
| 4 | 40 | 36902 | S803HV-K40 | 2CCF019041R0001 | | 0.81 | 1 |
| 4 | 50 | 36919 | S803HV-K50 | 2CCF019042R0001 | | 0.81 | 1 |
| 4 | 63 | 36926 | S803HV-K63 | 2CCF019043R0001 | | 0.81 | 1 |
| 3 | 80 | 36933 | S803HV-K80 | 2CCF019044R0001 | | 0.81 | 1 |
| 3 | 100 | 36940 | S803HV-K100 | 2CCF019045R0001 | | 0.81 | 1 |
| 3 | 125 | 36957 | S803HV-K125 | 2CCF019046R0001 | | 0.81 | 1 |

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Worldwide marks and approvals of MCBs p.15/162

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Auxiliary elements for S 800 MCBs p.4/56

# S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.



Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2, 60898-1 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. **www.abb.com/lowvoltage**





# High performance MCBs
## S800U series technical features






**S800U**

| | | | |
|---|---|---|---|
| General Data | Standards | | |
| | Poles | | |
| | Tripping characteristics | | |
| | Rated current Ie | A | |
| | Rated frequency f | Hz | |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | |
| | Overvoltage category | | |
| | Pollution degree | | |
| | Suitability for isolation | | |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage Ue | V | |
| | Min. operating voltage | V | |
| | Rated ultimate short-circuit capacity Icu | kA | |
| | Rated service short-circuit capacity Ics | kA | |
| | Reference temperature for tripping characteristics | °C | |
| | Electrical and Mechanical Endurance | ops. | |
| Data acc. to UL / CSA | Rated voltage | V | |
| | Rated interrupting capacity acc. to UL 1077 | kA | |
| | Short-circuit current rating acc. to UL 489 | kA | |
| | Short-circuit current rating acc. to UL 489B | kA | |
| | Application | | |
| | Reference temperature for tripping characteristics | °C | |
| | Electrical and Mechanical endurance | ops. | |
| Mechanical Data | Housing | | |
| | Toggle | | |
| | Classification acc. To NF F 126-101, NF F 16-102 | | |
| | Protection degree acc. to EN 60529 | | |
| | Mechanical endurance | ops. | |
| | Shock resistance acc. to IEC/EN 60068-2-30 | | |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | °C/RH | |
| | Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B | °C/RH | |
| | Ambient temperature | °C | |
| | Storage temperature | °C | |

| | S800U | S804U-UCZ | S804U-PVS |
|---|---|---|---|
| | UL489 | UL489 | UL489B (Photovoltaic) |
| | 1 … 4 | 4 | 4 |
| | K, Z | UCZ | PVS |
| | 10 - 100 | 10 - 80 | 5 |
| | 50 / 60 Hz | - | - |
| | 690 V AC | DC 1500 | DC 1500 |
| | 8 | 8 | 8 |
| | IV | IV | IV |
| | 3 | 3 | 3 |
| | yes | yes | yes |
| | AC 240/415 | | |
| | AC 12 | - | - |
| | 1-pole: AC 240V 30kA | - | - |
| | multipole: AC 415V 50kA | - | - |
| | 1-pole: AC 240V 25kA | - | - |
| | multipole: AC 415V 40kA | - | - |
| | K, Z: 25°C | - | - |
| | 10 … 32A: 10'000 electrical / mechanical 40 … 100A: 6'000 electrical / 4'000 mechanical 125A: 4'000 electrical / 6'000 mechanical | - | - |
| | AC 240 | DC 600 | DC 1000 |
| | | | |
| | 1-pole 30kA multipole: 50kA | 10kA | |
| | | | 1.5kA |
| | Building installation | Datacenter, Criticial power | GFDI in PV-applicatoin |
| | 25°C | 25°C | 50°C |
| | acc. to UL489 6000 electric; 4000 mechanic | acc. to UL489 6000 electric; 4000 mechanic | acc. to UL489B 1000 with current; 1000 without current |
| | Material group I, RAL 7035 | Material group I, RAL 7035 | Material group I, RAL 7035 |
| | black, lockable | black, lockable | black, lockable |
| | | | |
| | IP20; IP40 (actuating end only) | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | -25… + 60 | -25… + 60 | -25… + 60 |
| | -40 … +70 | -40 … +70 | -40 … +70 |

# High performance MCBs
## S800U series technical features






**S800U**

| | | | |
|---|---|---|---|
| Installation | | | |
| | Terminal | | |
| | Stranded Cross-section of conductors (top / bottom) | $mm^2$ | |
| | | AWG | |
| | Flexible Cross-section of conductors (top/bottom) | $mm^2$ | |
| | | AWG | |
| | Tightening torque | Nm | |
| | | in-lbs. | |
| | Screwdriver | | |
| | Mounting | | |
| | Mounting position | | |
| | Supply | | |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | |
| | Pole weight | g | |
| Combination with aux. elements | Auxiliary contact | | |
| | Combined auxiliary- / signal contact | | |
| | Undervoltage release | | |
| | Shunt open release | | |
| | Motor Operating Device | | |

| | S800U | S804U-UCZ | S804U-PVS |
|---|---|---|---|
| | | | |
| | Failsafe cage or ringlug terminal | Failsafe cage terminal | Failsafe cage terminal |
| | | | |
| | Cu only 10 - 30A:14-2 AWG 40 - 100A: 1-8 AWG | Cu only 10 - 32A:14-2 AWG 40 - 80A: 1/0 - 8 AWG | 14 AWG – 2 AWG Single conductor per terminal – copper only, 75C wire |
| | | | |
| | 10 - 30A:14-2 AWG 40 - 100A: 1-8 AWG | Cu only 10 - 32A:14-2 AWG 40 - 80A: 1/0 - 8 AWG | 14 AWG – 2 AWG Single conductor per terminal – copper only, 75C wire |
| | 3,5 | 3,5 | 3,5 |
| | 31 | 31 | 31 |
| | POZI 2 | POZI 2 | POZI 2 |
| | any | any | any |
| | any | any | any |
| | any | any | any |
| | 95 x 26.5 x 82.5 | 142 x 26.5 x 82.5 | 142 x 26.5 x 82.5 |
| | 240 | 240 | 240 |
| | yes | yes | yes |
| | yes | yes | yes |
| | yes | yes | yes |
| | yes | yes | yes |
| | yes | yes | yes |

# High performance MCBs
## S800U series 25000 with cage terminal, Z characteristic






S801U




S802U

### S800U-Z characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**

**Standard: UL489, CSA 22.2 NO.5-02, IEC/EN 60947-2**

**Icu=30 kA (1 pole), 50 kA (2...4 poles)**

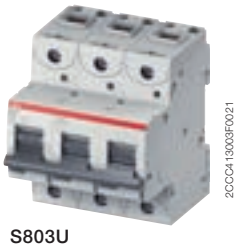
| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 214487 | S801U-Z10 | 2CCS881017R0105 | | 0.245 | 1 |
| | 15 | 214524 | S801U-Z15 | 2CCS881017R0155 | | 0.245 | 1 |
| | 20 | 214562 | S801U-Z20 | 2CCS881017R0205 | | 0.245 | 1 |
| | 25 | 214609 | S801U-Z25 | 2CCS881017R0255 | | 0.245 | 1 |
| | 30 | 214647 | S801U-Z30 | 2CCS881017R0305 | | 0.245 | 1 |
| | 40 | 214685 | S801U-Z40 | 2CCS881017R0405 | | 0.245 | 1 |
| | 50 | 214722 | S801U-Z50 | 2CCS881017R0505 | | 0.245 | 1 |
| | 60 | 214760 | S801U-Z60 | 2CCS881017R0605 | | 0.245 | 1 |
| | 70 | 214807 | S801U-Z70 | 2CCS881017R0705 | | 0.245 | 1 |
| | 80 | 214845 | S801U-Z80 | 2CCS881017R0805 | | 0.245 | 1 |
| | 90 | 214883 | S801U-Z90 | 2CCS881017R0905 | | 0.245 | 1 |
| | 100 | 214920 | S801U-Z100 | 2CCS881017R0825 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 214494 | S802U-Z10 | 2CCS862017R0105 | | 0.49 | 1 |
| | 15 | 214531 | S802U-Z15 | 2CCS862017R0155 | | 0.49 | 1 |
| | 20 | 214579 | S802U-Z20 | 2CCS862017R0205 | | 0.49 | 1 |
| | 25 | 214616 | S802U-Z25 | 2CCS862017R0255 | | 0.49 | 1 |
| | 30 | 214654 | S802U-Z30 | 2CCS862017R0305 | | 0.49 | 1 |
| | 40 | 214692 | S802U-Z40 | 2CCS862017R0405 | | 0.49 | 1 |
| | 50 | 214739 | S802U-Z50 | 2CCS862017R0505 | | 0.49 | 1 |
| | 60 | 214777 | S802U-Z60 | 2CCS862017R0605 | | 0.49 | 1 |
| | 70 | 214814 | S802U-Z70 | 2CCS862017R0705 | | 0.49 | 1 |
| | 80 | 214852 | S802U-Z80 | 2CCS862017R0805 | | 0.49 | 1 |
| | 90 | 214890 | S802U-Z90 | 2CCS862017R0905 | | 0.49 | 1 |
| | 100 | 214937 | S802U-Z100 | 2CCS862017R0825 | | 0.49 | 1 |

**Where to find more:**
Back-up coordination tables for S 800U MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of them on www.abb.com




S803U

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 214500 | S803U-Z10 | 2CCS863017R0105 | | 0.735 | 1 |
| | 15 | 214548 | S803U-Z15 | 2CCS863017R0155 | | 0.735 | 1 |
| | 20 | 214586 | S803U-Z20 | 2CCS863017R0205 | | 0.735 | 1 |
| | 25 | 214623 | S803U-Z25 | 2CCS863017R0255 | | 0.735 | 1 |
| | 30 | 214661 | S803U-Z30 | 2CCS863017R0305 | | 0.735 | 1 |
| | 40 | 214708 | S803U-Z40 | 2CCS863017R0405 | | 0.735 | 1 |
| | 50 | 214746 | S803U-Z50 | 2CCS863017R0505 | | 0.735 | 1 |
| | 60 | 214784 | S803U-Z60 | 2CCS863017R0605 | | 0.735 | 1 |
| | 70 | 214821 | S803U-Z70 | 2CCS863017R0705 | | 0.735 | 1 |
| | 80 | 214869 | S803U-Z80 | 2CCS863017R0805 | | 0.735 | 1 |
| | 90 | 214906 | S803U-Z90 | 2CCS863017R0905 | | 0.735 | 1 |
| | 100 | 214944 | S803U-Z100 | 2CCS863017R0825 | | 0.735 | 1 |




S804U

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 214517 | S804U-Z10 | 2CCS864017R0105 | | 0.98 | 1 |
| | 15 | 214555 | S804U-Z15 | 2CCS864017R0155 | | 0.98 | 1 |
| | 20 | 214593 | S804U-Z20 | 2CCS864017R0205 | | 0.98 | 1 |
| | 25 | 214630 | S804U-Z25 | 2CCS864017R0255 | | 0.98 | 1 |
| | 30 | 214678 | S804U-Z30 | 2CCS864017R0305 | | 0.98 | 1 |
| | 40 | 214715 | S804U-Z40 | 2CCS864017R0405 | | 0.98 | 1 |
| | 50 | 214753 | S804U-Z50 | 2CCS864017R0505 | | 0.98 | 1 |
| | 60 | 214791 | S804U-Z60 | 2CCS864017R0605 | | 0.98 | 1 |
| | 70 | 214838 | S804U-Z70 | 2CCS864017R0705 | | 0.98 | 1 |
| | 80 | 214876 | S804U-Z80 | 2CCS864017R0805 | | 0.98 | 1 |
| | 90 | 214913 | S804U-Z90 | 2CCS864017R0905 | | 0.98 | 1 |
| | 100 | 214951 | S804U-Z100 | 2CCS864017R0825 | | 0.98 | 1 |

# High performance MCBs
## S800U series 25000 with cage terminal, K characteristic






S801U




S802U

### S800U-K characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

**Applications: commercial and industrial.**
**Standard: UL489, CSA 22.2 NO.5-02, IEC/EN 60947-2**
**Icu=30 kA (1-pole), 50 kA (2...4-pole)**

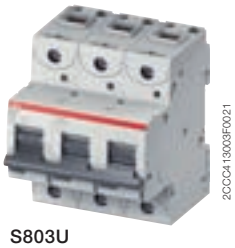
| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 10 | 214005 | S801U-K10 | 2CCS881017R0427 | | 0.245 | 1 |
| | 15 | 214043 | S801U-K15 | 2CCS881017R0457 | | 0.245 | 1 |
| | 20 | 214081 | S801U-K20 | 2CCS881017R0487 | | 0.245 | 1 |
| | 25 | 214128 | S801U-K25 | 2CCS881017R0517 | | 0.245 | 1 |
| | 30 | 214166 | S801U-K30 | 2CCS881017R0527 | | 0.245 | 1 |
| | 40 | 214203 | S801U-K40 | 2CCS881017R0557 | | 0.245 | 1 |
| | 50 | 214241 | S801U-K50 | 2CCS881017R0577 | | 0.245 | 1 |
| | 60 | 214289 | S801U-K60 | 2CCS881017R0587 | | 0.245 | 1 |
| | 70 | 214326 | S801U-K70 | 2CCS881017R0707 | | 0.245 | 1 |
| | 80 | 214364 | S801U-K80 | 2CCS881017R0627 | | 0.245 | 1 |
| | 90 | 214401 | S801U-K90 | 2CCS881017R0907 | | 0.245 | 1 |
| | 100 | 214449 | S801U-K100 | 2CCS881017R0637 | | 0.245 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 214012 | S802U-K10 | 2CCS862017R0427 | | 0.49 | 1 |
| | 15 | 214050 | S802U-K15 | 2CCS862017R0457 | | 0.49 | 1 |
| | 20 | 214098 | S802U-K20 | 2CCS862017R0487 | | 0.49 | 1 |
| | 25 | 214135 | S802U-K25 | 2CCS862017R0517 | | 0.49 | 1 |
| | 30 | 214173 | S802U-K30 | 2CCS862017R0527 | | 0.49 | 1 |
| | 40 | 214210 | S802U-K40 | 2CCS862017R0557 | | 0.49 | 1 |
| | 50 | 214258 | S802U-K50 | 2CCS862017R0577 | | 0.49 | 1 |
| | 60 | 214296 | S802U-K60 | 2CCS862017R0587 | | 0.49 | 1 |
| | 70 | 214333 | S802U-K70 | 2CCS862017R0707 | | 0.49 | 1 |
| | 80 | 214371 | S802U-K80 | 2CCS862017R0627 | | 0.49 | 1 |
| | 90 | 214418 | S802U-K90 | 2CCS862017R0907 | | 0.49 | 1 |
| | 100 | 214456 | S802U-K100 | 2CCS862017R0637 | | 0.49 | 1 |

**Where to find more:**
Back-up coordination tables for S 800U MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

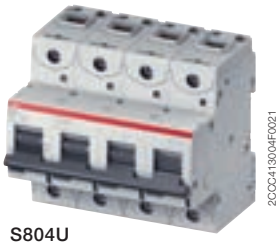
Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of them on www.abb.com




S803U

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 10 | 214029 | S803U-K10 | 2CCS863017R0427 | | 0.735 | 1 |
| | 15 | 214067 | S803U-K15 | 2CCS863017R0457 | | 0.735 | 1 |
| | 20 | 214104 | S803U-K20 | 2CCS863017R0487 | | 0.735 | 1 |
| | 25 | 214142 | S803U-K25 | 2CCS863017R0517 | | 0.735 | 1 |
| | 30 | 214180 | S803U-K30 | 2CCS863017R0527 | | 0.735 | 1 |
| | 40 | 214227 | S803U-K40 | 2CCS863017R0557 | | 0.735 | 1 |
| | 50 | 214265 | S803U-K50 | 2CCS863017R0577 | | 0.735 | 1 |
| | 60 | 214302 | S803U-K60 | 2CCS863017R0587 | | 0.735 | 1 |
| | 70 | 214340 | S803U-K70 | 2CCS863017R0707 | | 0.735 | 1 |
| | 80 | 214388 | S803U-K80 | 2CCS863017R0627 | | 0.735 | 1 |
| | 90 | 214425 | S803U-K90 | 2CCS863017R0907 | | 0.735 | 1 |
| | 100 | 214463 | S803U-K100 | 2CCS863017R0637 | | 0.735 | 1 |




S804U

| Number of poles | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 10 | 214036 | S804U-K10 | 2CCS864017R0427 | | 0.98 | 1 |
| | 15 | 214074 | S804U-K15 | 2CCS864017R0457 | | 0.98 | 1 |
| | 20 | 214111 | S804U-K20 | 2CCS864017R0487 | | 0.98 | 1 |
| | 25 | 214159 | S804U-K25 | 2CCS864017R0517 | | 0.98 | 1 |
| | 30 | 214197 | S804U-K30 | 2CCS864017R0527 | | 0.98 | 1 |
| | 40 | 214234 | S804U-K40 | 2CCS864017R0557 | | 0.98 | 1 |
| | 50 | 214272 | S804U-K50 | 2CCS864017R0577 | | 0.98 | 1 |
| | 60 | 214319 | S804U-K60 | 2CCS864017R0587 | | 0.98 | 1 |
| | 70 | 214357 | S804U-K70 | 2CCS864017R0707 | | 0.98 | 1 |
| | 80 | 214395 | S804U-K80 | 2CCS864017R0627 | | 0.98 | 1 |
| | 90 | 214432 | S804U-K90 | 2CCS864017R0907 | | 0.98 | 1 |
| | 100 | 214470 | S804U-K100 | 2CCS864017R0637 | | 0.98 | 1 |

# High performance MCBs
## S800U series 10000 UCZ characteristic






S804U

### S800 UCZ characteristic

Function: this breaker is specially designed for networks up to 600 V d.c., e.g. datacenter. With its short-circuit current rating of 10 kA you will get a good solution regarding safety and reliability. This breaker is tested acc to UL489 (cIUSus).

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 10 | 420703 | S804U-UCZ10 | 2CCS248356 | | 0.98 | 1 |
| | 15 | 420710 | S804U-UCZ15 | 2CCS248357 | | 0.98 | 1 |
| | 20 | 420727 | S804U-UCZ20 | 2CCS248358 | | 0.98 | 1 |
| | 25 | 420734 | S804U-UCZ25 | 2CCS248359 | | 0.98 | 1 |
| | 30 | 420741 | S804U-UCZ30 | 2CCS248360 | | 0.98 | 1 |
| | 40 | 420758 | S804U-UCZ40 | 2CCS248361 | | 0.98 | 1 |
| | 50 | 420765 | S804U-UCZ50 | 2CCS248362 | | 0.98 | 1 |
| | 60 | 420772 | S804U-UCZ60 | 2CCS248363 | | 0.98 | 1 |
| | 70 | 420789 | S804U-UCZ70 | 2CCS248364 | | 0.98 | 1 |
| | 80 | 420796 | S804U-UCZ80 | 2CCS248365 | | 0.98 | 1 |

**Where to find more:**
Back-up coordination tables for S 800U MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
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# High performance MCBs
## S800U series 3000 B characteristic



S804U

### S800U B characteristic

Function: string protection.
The new S804U-PVS5 is for string protection in photovoltaic systems.
In case of reverse currents, the breaker wil trip. Thus the PV generator will not be damaged.
The breaker is tested acc. to UL489B for 1000 V d.c.

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 5 | 419929 | S804U-PVS5 | 2CCP824017R1159 | | 0.98 | 1 |

# High performance MCBs
## S800PV series technical features






**S800PV**

| | | | S800PV-S |
|---|---|---|---|
| General Data | Standards | | IEC / EN 60947-2 and Annex P |
| | Poles | | 2 … 4 |
| | Tripping characteristics | | S |
| | Rated current Ie | A | 10 … 125 |
| | Rated frequency f | Hz | - |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | DC 1500 |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | 8 |
| | Overvoltage category | | III |
| | Pollution degree | | 2 |
| | Suitability for isolation | | yes |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage Ue | V | - |
| | Min. operating voltage | V | - |
| | Rated short-circuit capacity Icn | kA | - |
| | Energy limiting class | | - |
| | Reference temperature for tripping characteristics | °C | - |
| | Electrical and Mechanical Endurance | ops. | - |
| | Service short-circuit capacity Ics | kA | - |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage Ue | V | 2-pole DC 800V: 10<br>4-pole DC 1500V: 5 ... 125 |
| | Min. operating voltage | V | - |
| | Rated ultimate short-circuit capacity Icu | kA | 5 |
| | Rated service short-circuit capacity Ics | kA | 5 |
| | Reference temperature for tripping characteristics | °C | 30°C |
| | Electrical and Mechanical Endurance | ops. | 10 … 100A: 1500 electric; 8500 mechanic 125A: 1000 electric, 7000 mechanic acc. to IEC 60947-2 |
| Mechanical Data | Housing | | Material group I, RAL 7035 |
| | Toggle | | black, lockable |
| | Classification acc. To NF F 126-101, NF F 16-102 | | - |
| | Protection degree acc. to EN 60529 | | IP20; IP40 (actuating end only) |
| | Mechanical endurance | ops. | 10'000 cycles |
| | Shock resistance acc. to IEC/EN 60068-2-30 | | IEC 61373 Cat. 1 Class B, 5g / 30ms acc. To IEC 60068-27 Test Ea |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | IEC 60068-2-6 Test Fc; 2 - 13.2Hz /1mm 13.2 - 100Hz / 0.7g with load 100% x Ie |
| | Environmental conditions (damp heat ) acc. to IEC/EN 60068-2-30 | °C/RH | 12 + 12 cycle with 55°C / 90-96% and 25% / 95-100% |
| | Environmental conditions (dry heat ) acc. to IEC/EN 60068-2-2 Test B | °C/RH | 16 hours 55°C / 2 hours 70°C with damp heat 55% |
| | Ambient temperature | °C | -25… + 60 |
| | Storage temperature | °C | -25 … +70 |
| Installation | Terminal | | Failsafe cage or ringlug terminal |
| | Stranded Cross-section of conductors (top / bottom) | $mm^2$ | 1 … 50 |
| | Flexible Cross-section of conductors (top/bottom) | $mm^2$ | 1 … 70 |
| | Tightening torque | Nm | 3,5 |
| | | in-lbs. | 31 |
| | Screwdriver | | POZI 2 |
| | Mounting | | any |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | 95 x 26.5 x 82.5 |
| | Pole weight | g | 240 |
| Combination with aux. elements | Auxiliary contact | | yes |
| | Combined auxiliary- / signal contact | | yes |
| | Shunt trip | | yes |
| | Undervoltage release | | yes |
| | Shunt open release | | yes |
| | Motor Operating Device | | yes |

# High performance MCBs
## S800PV series with cage terminal, S characteristic






S802PV




S803PV




S804PV

### S800PV-S characteristic

Function: protection and control of photovoltaic strings against overloads, short-circuits and reverse currents. Ideal replacement for fuses due to comfortable string failure identification and signalisation.

**Applications: Photovoltaic systems.**

**Standard: IEC 60947-2**

**Icu=5 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 10 | 210939 | S802PV-S10 | 2CCP842001R1109 | | 0.49 | 1 |
| | 13 | 210946 | S802PV-S13 | 2CCP842001R1139 | | 0.49 | 1 |
| | 16 | 210953 | S802PV-S16 | 2CCP842001R1169 | | 0.49 | 1 |
| | 20 | 210960 | S802PV-S20 | 2CCP842001R1209 | | 0.49 | 1 |
| | 25 | 210977 | S802PV-S25 | 2CCP842001R1259 | | 0.49 | 1 |
| | 32 | 210984 | S802PV-S32 | 2CCP842001R1329 | | 0.49 | 1 |
| | 40 | 210991 | S802PV-S40 | 2CCP842001R1409 | | 0.49 | 1 |
| | 50 | 211004 | S802PV-S50 | 2CCP842001R1509 | | 0.49 | 1 |
| | 63 | 211011 | S802PV-S63 | 2CCP842001R1639 | | 0.49 | 1 |
| | 80 | 211028 | S802PV-S80 | 2CCP842001R1809 | | 0.49 | 1 |
| | 100 | 214968 | S802PV-S100 | 2CCP842001R1829 | | 0.49 | 1 |
| | 125 | 214999 | S802PV-S125 | 2CCP842001R1849 | | 0.49 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 10 | 211035 | S803PV-S10 | 2CCP843001R1109 | | 0.735 | 1 |
| | 13 | 211042 | S803PV-S13 | 2CCP843001R1139 | | 0.735 | 1 |
| | 16 | 211059 | S803PV-S16 | 2CCP843001R1169 | | 0.735 | 1 |
| | 20 | 211066 | S803PV-S20 | 2CCP843001R1209 | | 0.735 | 1 |
| | 25 | 211073 | S803PV-S25 | 2CCP843001R1259 | | 0.735 | 1 |
| | 32 | 211080 | S803PV-S32 | 2CCP843001R1329 | | 0.735 | 1 |
| | 40 | 211097 | S803PV-S40 | 2CCP843001R1409 | | 0.735 | 1 |
| | 50 | 211103 | S803PV-S50 | 2CCP843001R1509 | | 0.735 | 1 |
| | 63 | 211110 | S803PV-S63 | 2CCP843001R1639 | | 0.735 | 1 |
| | 80 | 211127 | S803PV-S80 | 2CCP843001R1809 | | 0.735 | 1 |
| | 100 | 214975 | S803PV-S100 | 2CCP843001R1829 | | 0.740 | 1 |
| | 125 | 215002 | S803PV-S125 | 2CCP843001R1849 | | 0.740 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 10 | 211134 | S804PV-S10 | 2CCP844001R1109 | | 0.98 | 1 |
| | 13 | 211141 | S804PV-S13 | 2CCP844001R1139 | | 0.98 | 1 |
| | 16 | 211158 | S804PV-S16 | 2CCP844001R1169 | | 0.98 | 1 |
| | 20 | 211165 | S804PV-S20 | 2CCP844001R1209 | | 0.98 | 1 |
| | 25 | 211172 | S804PV-S25 | 2CCP844001R1259 | | 0.98 | 1 |
| | 32 | 211189 | S804PV-S32 | 2CCP844001R1329 | | 0.98 | 1 |
| | 40 | 211196 | S804PV-S40 | 2CCP844001R1409 | | 0.98 | 1 |
| | 50 | 211202 | S804PV-S50 | 2CCP844001R1509 | | 0.98 | 1 |
| | 63 | 211219 | S804PV-S63 | 2CCP844001R1639 | | 0.98 | 1 |
| | 80 | 211226 | S804PV-S80 | 2CCP844001R1809 | | 0.98 | 1 |
| | 100 | 214982 | S804PV-S100 | 2CCP844001R1829 | | 0.98 | 1 |
| | 125 | 215019 | S804PV-S125 | 2CCP844001R1849 | | 0.98 | 1 |

**Where to find more:**
Worldwide marks and approvals of MCBs p.15/162

**Frequently asked question - FAQ:**
Where can I get certificates and declaration?
You can find all of thems on www.abb.com

**Maybe you are also interested in:**
Auxiliary elements for S 800 MCBs p.4/56
S800PV switch disconnector p.6/15

# MCBs
## S500 series technical features






**S500**

| | | | S500-K |
|---|---|---|---|
| General Data | Tripping characteristics | | K |
| | Standards | | IEC 60947-2 |
| | Poles | | 1 … 3 |
| | Rated current Ie | A | 0.1 … 45 |
| | Rated frequency f | Hz | 50/60 |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | AC 690 V |
| | Rated impulse withstand voltage Uimp. (1.2/50 µs) | kV | 6 |
| | Overvoltage category | | II |
| | Pollution degree | | 3 |
| | Suitability for isolation | | yes |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage Ue | V | – |
| | Min. operating voltage | V | – |
| | Rated short-circuit capacity Icn | kA | – |
| | Reference temperature for tripping characteristics | °C | – |
| | Electrical and Mechanical Endurance | ops. | – |
| | Service short-circuit capacity Ics | kA | – |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage Ue | V | 400/690 V AC |
| | Min. operating voltage | V | 12 V AC |
| | Rated ultimate short-circuit capacity Icu | | |
| | AC 230/400V | kA | 0.1– 11 A: 50 kA; 10–45 A: 30 kA |
| | AC 250/440V | | 0.1–11 A: 30 kA; 10–45 A: 25 kA |
| | AC 3 x 500V | | 0.1–11 A: 20 kA; 10–45 A: 15 kA |
| | AC 400/690V | | 0.1–45 A: 6 kA |
| | Rated service short-circuit capacity Ics | | |
| | AC 230/400V | kA | 0.1–11 A: 30 kA; 10–45 A: 25 kA |
| | AC 250/440V | | 0.1–45 A: 22 kA |
| | AC 3 x 500V | | 0.1–11 A: 15 kA; 10–45 A: 11 kA |
| | AC 400/690V | | 0.1–45 A: 3 kA |
| | Reference temperature for tripping characteristics | °C | 40 |
| | Electrical and Mechanical Endurance | ops. | 0.1 … 45 A: 1500 electric; 8500 mechanic |
| Data acc. to UL/CSA | Rated voltage | V | AC 600 |
| | Rated interrupting capacity acc. to UL 1077 | kA | |
| | AC 240/415V kA | | <25A: 30kA; >25: 18kA |
| | AC 277/480V | | 14 |
| | AC 346/600 | | 6 |
| | Reference temperature for tripping characteristics | °C | 25 |
| | Electrical and Mechanical endurance | ops. | acc. to UL1077. 6000 electric; 8500 mechanic |

| | | | S500-K |
|---|---|---|---|
| Mechanical Data | Housing | | Material group I, RAL 7035 |
| | Toggle | | black, lockable |
| | Classification acc. to NF F 16-101, NF F 16-102 | | I2, F1 |
| | Protection degree acc. to EN 60529 | | IP20; IP40 (actuating end only) |
| | Vibration resistance acc. to IEC/EN 60068-2-30 | | IEC 61373 Cat. 1 Class B, 5 g/30 ms acc. to IEC 60068-27 Test Ea |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | IEC 60068-2-6 Test Fc; 2–13.2 Hz/1 mm 13.2–100 Hz/0.7 g with load 100 % x Ie |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db | | 12 + 12 cycle with 55 °C/90–96 % r.g. and 25 %/95 –100 % r.f. |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-2 Test B | | 16 hours 55 °C/2 hours 70 °C with damp heat 55 % |
| | Ambient temperature | °C | –25 … +55 |
| | Storage temperature | °C | –40 … +70 |
| | Terminal | | Cage terminal |
| | Connections (top/bottom) – CU only | $mm^2$ | 1 … 25 |
| Installation | Tightening torque | Nm | 2.5 |
| | Screwdriver | | POZI 2 |
| | Mounting | | EN 60715 |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | 91 x 92 x 25 |
| | Pole weight | g | ca. 250 |
| Combination with aux. elements | Auxiliary contact | | Yes |
| | Signal contact | | Yes |
| | Shunt trip | | Yes |
| | Undervoltage release | | Yes |
| | Shunt open release | | Yes |
| | Motor Operating Device | | Yes |

# MCBs
## S500 series technical features






**S500**

| | | | S500UC-K |
|---|---|---|---|
| General Data | Tripping characteristics | | K |
| | Standards | | IEC 60947-2 |
| | Poles | | 1 … 4 |
| | Rated current Ie | A | 0.1 … 45 |
| | Rated frequency f | Hz | – |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | 1000V DC |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | 6 |
| | Overvoltage category | | II |
| | Pollution degree | | 2 |
| | Suitability for isolation | | yes |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage Ue | V | – |
| | Min. operating voltage | V | – |
| | Rated short-circuit capacity Icn | kA | – |
| | Reference temperature for tripping characteristics | °C | – |
| | Electrical and Mechanical Endurance | ops. | – |
| | Service short-circuit capacity Ics | kA | – |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage Ue | V | DC 250 V/pol, max. DC 750 V |
| | Min. operating voltage | V | – |
| | Rated ultimate short-circuit capacity Icu | | |
| | DC 250 V L/R 15 ms (1-pole) | kA | 30 kA |
| | DC 500 V L/R 15 ms (2-pole in series) | | 30 kA |
| | DC 750 V L/R 15 ms (3- and 4-pole in series) | | 30 kA |
| | Rated service short-circuit capacity Ics | | |
| | DC 250 V L/R 15 ms (1-pole) | kA | 30 kA |
| | DC 500 V L/R 15 ms (2-pole) | | 30 kA |
| | DC 750 V L/R 15 ms (3- and 4-pole) | | 30 kA |
| | Reference temperature for tripping characteristics | °C | 40 |
| | Electrical and Mechanical Endurance | ops. | 0.1 … 45 A: 1500 electric; 8500 mechanic |
| Data acc. to UL/CSA | Rated voltage | V | DC 250 V/pol, max. 600 V |
| | Rated interrupting capacity acc. to UL 1077 kA | | |
| | DC 250V (1-pole) | kA | 30 kA |
| | DC 500V (2-pole in series) | | 30 kA |
| | DC 750V (3- and 4-pole in series) | | 30 kA |
| | Reference temperature for tripping characteristics | °C | 25 |
| | Electrical and Mechanical endurance | ops. | acc. to UL1077. 6000 electric, 4000 mechanic |

| | | | S500UC-K |
|---|---|---|---|
| Mechanical Data | Housing | | Material group I, RAL 7035 |
| | Toggle | | black, lockable |
| | Classification acc. to NF F 16-101, NF F 16-102 | | I2, F1 |
| | Protection degree acc. to EN 60529 | | IP20; IP40 (actuating end only) |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | IEC 61373 Cat. 1 Class B, 5 g/30 ms acc. to IEC 60068-27 Test Ea |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | IEC 60068-2-6 Test Fc; 2–13.2 Hz/1 mm 13.2–100 Hz/0.7 g with load 100 % x Ie |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db | | 12 + 12 cycle with 55 °C/90 –96 % r.g. and 25 %/95 –100 % r.f. |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-2 Test B | | 16 hours 55 °C/2 hours 70 °C with damp heat 55 % |
| | Ambient temperature | °C | –25 … +55 |
| | Storage temperature | °C | –40 … +70 |
| | Terminal | | Cage terminal |
| | Connections (top/bottom) – CU only | $mm^2$ | 1 … 25 |
| Installation | Tightening torque | Nm | 2.5 |
| | Screwdriver | | POZI 2 |
| | Mounting | | EN 60715 |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | 91 x 92 x 25 |
| | Pole weight | g | ca. 250 |
| Combination with aux. elements | Auxiliary contact | | Yes |
| | Signal contact | | Yes |
| | Shunt trip | | Yes |
| | Undervoltage release | | Yes |
| | Shunt open release | | Yes |
| | Motor Operating Device | | Yes |

# MCBs
## S500 series technical features






**S500**

| | | | S500HV-K |
|---|---|---|---|
| General Data | Tripping characteristics | | K |
| | Standards | | IEC 60947-2 |
| | Poles | | 1 … 3 |
| | Rated current Ie | A | 1 … 45 |
| | Rated frequency f | Hz | 50/60 |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | AC 1000 V |
| | Rated impulse withstand voltage Uimp. (1.2/50 µs) | kV | 6 |
| | Overvoltage category | | II |
| | Pollution degree | | 2 |
| | Suitability for isolation | | yes |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage Ue | V | – |
| | Min. operating voltage | V | – |
| | Rated short-circuit capacity Icn | kA | – |
| | Reference temperature for tripping characteristics | °C | – |
| | Electrical and Mechanical Endurance | ops. | – |
| | Service short-circuit capacity Ics | kA | – |
| Data acc. to IEC/EN 60947-2 | Rated operational voltage Ue | V | AC 580/1000 V |
| | Min. operating voltage | V | 12 V AC |
| | Rated ultimate short-circuit capacity Icu | | |
| | AC 580/1000V | kA | 1.5 |
| | Rated service short-circuit capacity Ics | | |
| | AC 580/1000V | kA | 1.5 |
| | Reference temperature for tripping characteristics | °C | 40 |
| | Electrical and Mechanical Endurance | ops. | – |
| Data acc. to UL/CSA | Rated voltage | V | – |
| | Rated interrupting capacity acc. to UL 1077 | kA | – |
| | AC 240/415V | kA | – |
| | AC 277/480V | | – |
| | AC 346/600 | | – |
| | Reference temperature for tripping characteristics | | – |
| | Electrical and Mechanical endurance | ops. | – |
| Mechanical Data | Housing | | Material group I, RAL 7035 |
| | Toggle | | black, lockable |
| | Classification acc. to NF F 16-101, NF F 16-102 | | I2, F1 |
| | Protection degree acc. to EN 60529 | | IP20; IP40 (actuating end only) |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | w |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db | | 12 + 12 cycle with 55 °C/90 –96 % r.g. and 25 %/95 –100 % r.f. |
| | Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B | | 16 hours 55 °C/2 hours 70 °C with damp heat 55 % |
| | Ambient temperature | °C | –25 … +55 |
| | Storage temperature | °C | –40 … +70 |
| | Terminal | | Cage terminal |
| | Connections (top/bottom) – CU only | $mm^2$ | 1 … 25 |

| | | | S500HV-K |
|---|---|---|---|
| Installation | Tightening torque | Nm | 2.5 |
| | Screwdriver | | POZI 2 |
| | Mounting | | EN 60715 |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | 91 x 92 x 25 |
| | Pole weight | g | ca. 250 |
| Combination with aux. elements | Auxiliary contact | | Yes |
| | Signal contact | | Yes |
| | Shunt trip | | Yes |
| | Undervoltage release | | Yes |
| | Shunt open release | | Yes |
| | Motor Operating Device | | Yes |

# MCBs
## S500 series with with adjustable thermal release for motor protection, K characteristic






S501

### S500-K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when an high breaking capacity is required; very useful when it is needed selectivity vs an MCCB or back-up vs other MCBs wired downstream; version with adjustable thermal release, dedicated to protect motors.

Advantages: No nuisance tripping in the case of functional peak currents up to 8xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2, UL 1077**

**Icu up to 50 kA**

| Number of poles | Rated current | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.1-0.15 | 303007 | S501K0.1-0.15 | 2CCF008856R0001 | | 0.250 | 1 |
| | 0.14-0.21 | 303014 | S501K0.14-0.21 | 2CCF008857R0001 | | 0.250 | 1 |
| | 0.2-0.3 | 303021 | S501K0.2-0.3 | 2CCF008858R0001 | | 0.250 | 1 |
| | 0.28-0.42 | 303038 | S501K0.28-0.42 | 2CCF008859R0001 | | 0.250 | 1 |
| | 0.38-0.58 | 303045 | S501K0.38-0.58 | 2CCF008860R0001 | | 0.250 | 1 |
| | 0.53-0.8 | 303052 | S501K0.53-0.8 | 2CCF008861R0001 | | 0.250 | 1 |
| | 0.73-1.1 | 303069 | S501K0.73-1.1 | 2CCF008862R0001 | | 0.250 | 1 |
| | 1-1.5 | 303076 | S501K1-1.5 | 2CCF008863R0001 | | 0.250 | 1 |
| | 1.4-2.1 | 303083 | S501K1.4-2.1 | 2CCF008864R0001 | | 0.250 | 1 |
| | 2-3 | 303090 | S501K2-3 | 2CCF008865R0001 | | 0.250 | 1 |
| | 2.8-4.2 | 303106 | S501K2.8-4.2 | 2CCF008866R0001 | | 0.250 | 1 |
| | 3.8-5.8 | 303113 | S501K3.8-5.8 | 2CCF008867R0001 | | 0.250 | 1 |
| | 5.3-8 | 303120 | S501K5.3-8 | 2CCF008868R0001 | | 0.250 | 1 |
| | 7.3-11 | 303137 | S501K7.3-11 | 2CCF008869R0001 | | 0.250 | 1 |
| | 10-15 | 303144 | S501K10-15 | 2CCF008870R0001 | | 0.250 | 1 |
| | 14-20 | 303151 | S501K14-20 | 2CCF008871R0001 | | 0.250 | 1 |
| | 18-26 | 303168 | S501K18-26 | 2CCF008872R0001 | | 0.250 | 1 |
| | 23-32 | 303175 | S501K23-32 | 2CCF008873R0001 | | 0.250 | 1 |
| | 29-37 | 303182 | S501K29-37 | 2CCF008874R0001 | | 0.250 | 1 |
| | 34-41 | 303199 | S501K34-41 | 2CCF008877R0001 | | 0.250 | 1 |
| | 38-45 | 303205 | S501K38-45 | 2CCF008888R0001 | | 0.250 | 1 |

**Where to find more:**
Back-up coordination tables for S500 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S500 MCBs p.4/68

# MCBs

## S500 series with with adjustable thermal release for motor protection, K characteristic




S502




S503



| Number of poles | Rated current In A | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.1-0.15 | 303250 | S502K0.1-0.15 | 2CCF008894R0001 | | 0.500 | 1 |
| | 0.14-0.21 | 303267 | S502K0.14-0.21 | 2CCF008895R0001 | | 0.500 | 1 |
| | 0.2-0.3 | 303274 | S502K0.2-0.3 | 2CCF008896R0001 | | 0.500 | 1 |
| | 0.28-0.42 | 303281 | S502K0.28-0.42 | 2CCF008897R0001 | | 0.500 | 1 |
| | 0.38-0.58 | 303298 | S502K0.38-0.58 | 2CCF008898R0001 | | 0.500 | 1 |
| | 0.53-0.8 | 303304 | S502K0.53-0.8 | 2CCF008899R0001 | | 0.500 | 1 |
| | 0.73-1.1 | 303311 | S502K0.73-1.1 | 2CCF008900R0001 | | 0.500 | 1 |
| | 1-1.5 | 303328 | S502K1-1.5 | 2CCF008901R0001 | | 0.500 | 1 |
| | 1.4-2.1 | 303335 | S502K1.4-2.1 | 2CCF008902R0001 | | 0.500 | 1 |
| | 2-3 | 303342 | S502K2-3 | 2CCF008903R0001 | | 0.500 | 1 |
| | 2.8-4.2 | 303359 | S502K2.8-4.2 | 2CCF008904R0001 | | 0.500 | 1 |
| | 3.8-5.8 | 303366 | S502K3.8-5.8 | 2CCF008905R0001 | | 0.500 | 1 |
| | 5.3-8 | 303373 | S502K5.3-8 | 2CCF008906R0001 | | 0.500 | 1 |
| | 7.3-11 | 303380 | S502K7.3-11 | 2CCF008907R0001 | | 0.500 | 1 |
| | 10-15 | 303397 | S502K10-15 | 2CCF008908R0001 | | 0.500 | 1 |
| | 14-20 | 303403 | S502K14-20 | 2CCF008909R0001 | | 0.500 | 1 |
| | 18-26 | 303410 | S502K18-26 | 2CCF008910R0001 | | 0.500 | 1 |
| | 23-32 | 303427 | S502K23-32 | 2CCF008911R0001 | | 0.500 | 1 |
| | 29-37 | 303434 | S502K29-37 | 2CCF008912R0001 | | 0.500 | 1 |
| | 34-41 | 303441 | S502K34-41 | 2CCF008913R0001 | | 0.500 | 1 |
| | 38-4 | 303458 | S502K38-45 | 2CCF008926R0001 | | 0.500 | 1 |

| Number of poles | Rated current In A | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.1-0.15 | 303502 | S503K0.1-0.15 | 2CCF008932R0001 | | 0.750 | 1 |
| | 0.14-0.21 | 303519 | S503K0.14-0.21 | 2CCF008933R0001 | | 0.750 | 1 |
| | 0.2-0.3 | 303526 | S503K0.2-0.3 | 2CCF008934R0001 | | 0.750 | 1 |
| | 0.28-0.42 | 303533 | S503K0.28-0.42 | 2CCF008935R0001 | | 0.750 | 1 |
| | 0.38-0.58 | 303540 | S503K0.38-0.58 | 2CCF008936R0001 | | 0.750 | 1 |
| | 0.53-0.8 | 303557 | S503K0.53-0.8 | 2CCF008937R0001 | | 0.750 | 1 |
| | 0.73-1.1 | 303564 | S503K0.73-1.1 | 2CCF008938R0001 | | 0.750 | 1 |
| | 1-1.5 | 303571 | S503K1-1.5 | 2CCF008939R0001 | | 0.750 | 1 |
| | 1.4-2.1 | 303588 | S503K1.4-2.1 | 2CCF008940R0001 | | 0.750 | 1 |
| | 2-3 | 303595 | S503K2-3 | 2CCF008941R0001 | | 0.750 | 1 |
| | 2.8-4.2 | 303601 | S503K2.8-4.2 | 2CCF008942R0001 | | 0.750 | 1 |
| | 3.8-5.8 | 303618 | S503K3.8-5.8 | 2CCF008943R0001 | | 0.750 | 1 |
| | 5.3-8 | 303625 | S503K5.3-8 | 2CCF008944R0001 | | 0.750 | 1 |
| | 7.3-11 | 303632 | S503K7.3-11 | 2CCF008945R0001 | | 0.750 | 1 |
| | 10-15 | 303649 | S503K10-15 | 2CCF008946R0001 | | 0.750 | 1 |
| | 14-20 | 303656 | S503K14-20 | 2CCF008947R0001 | | 0.750 | 1 |
| | 18-26 | 303663 | S503K18-26 | 2CCF008948R0001 | | 0.750 | 1 |
| | 23-32 | 303670 | S503K23-32 | 2CCF008949R0001 | | 0.750 | 1 |
| | 29-37 | 303687 | S503K29-37 | 2CCF008950R0001 | | 0.750 | 1 |
| | 34-41 | 303694 | S503K34-41 | 2CCF008951R0001 | | 0.750 | 1 |
| | 38-45 | 303700 | S503K38-45 | 2CCF008964R0001 | | 0.750 | 1 |

# MCBs
## S500UC series technical features






**S501UC**

| | | | S500UC-K |
|---|---|---|---|
| Standards | | | IEC/EN 60947-2, UL 1077 a, CAN/CSA-C22.2 a No. 35 |
| Rated current In | | A | adjustable 0.1 ≤ In ≤ 3 / 2.8 ≤ In ≤ 11 / 10 ≤ In ≤ 45 |
| Poles | | | 1 ... 4 |
| Rated voltage Ue | DC | V | 250 per pole (4P 750V) |
| Insulation voltage Ui | | V | 1000 VDC |
| Max. operating voltage Ub max. | DC | V | 250 per pole (4P 750V) |
| Rated breaking capacity acc. to IEC/EN 60947-2 1P@ 250 VDC 2P@500 VDC 3P, 4P@ 750 VDC | ultimate Icu | kA | 30 |
| Rated interrupting capacity acc. to UL1077, CSA22.2 No.235 1P@60 VDC 2P, 3P, 4P@125 VDC | IR | kA | 30 |
| Rated impulse withstand voltage Uimp | | kV | 6 |
| Overvoltage category | | | |
| Thermomagnetic release characteristic | K: 8 In ≤ Im ≤ 14 In | | |
| Toggle | | | grey sealable in ON-OFF position |
| Protection degree | housing | | IP4X |
| | terminals | | IP2X |
| Tropicalization acc. to IEC/EN 60068-2 | humid heat | °C/RH | DIN 50016 |
| Reference temperature for setting of thermal element | | °C | 40 |
| Ambient temperature (with daily average ≤ +35 °C) | | °C | -25…+55 |
| Terminal type | | | cage (shock protected) |
| Terminal size top/bottom for cable | IEC | mm2 | 1 ... 25 |
| | UL/CSA | AWG | 17-4 |
| Tightening torque | IEC | Nm | 2.5 |
| Tool | | | Nr. 2 Posidriv |
| Mounting | | | on DIN rail EN 60715 |
| Connection | | | from top and bottom |
| Pole dimensions (H x D x W) | | mm | 91 x 92 x 25 |
| Pole weight | | g | 250 |
| Combinable with: | signal contact/auxiliary switch | | yes |
| | shunt trip | | yes |
| | undervoltage release | | yes (factory fitted) |
| | mechanical interlock | | no |
| | motor operating device | | no |

① supplementary protection

**Where to find more:**
Back-up coordination tables for S500 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S500 MCBs p.4/68

# MCBs
## S500UC series DC range, K characteristic




S501UC

### S500UC series K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when an high breaking capacity is required; very useful when it is needed selectivity vs an MCCB or back-up vs other MCBs wired downstream; version with adjustable thermal release, dedicated to protect motors; version dedicated to application in direct current circuits.

Advantages: No nuisance tripping in the case of functional peak currents up to 8xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

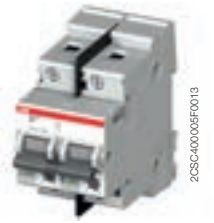
**Standard: IEC/EN 60947-2, UL1077**

**Icu up to 30 kA**

| Number of poles | Rated current | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 0.1-0.15 | 302000 | S501UC-K0.1-0.15 | 2CCF008988R0001 | | 0.250 | 1 |
| | 0.14-0.21 | 302017 | S501UC-K0.14-0.21 | 2CCF008991R0001 | | 0.250 | 1 |
| | 0.2-0.3 | 302024 | S501UC-K0.2-0.3 | 2CCF008994R0001 | | 0.250 | 1 |
| | 0.28-0.42 | 302031 | S501UC-K0.28-0.42 | 2CCF008997R0001 | | 0.250 | 1 |
| | 0.38-0.58 | 302048 | S501UC-K0.38-0.58 | 2CCF009000R0001 | | 0.250 | 1 |
| | 0.53-0.8 | 302055 | S501UC-K0.53-0.8 | 2CCF009003R0001 | | 0.250 | 1 |
| | 0.73-1.1 | 302062 | S501UC-K0.73-1.1 | 2CCF009006R0001 | | 0.250 | 1 |
| | 1-1.5 | 302079 | S501UC-K1-1.5 | 2CCF009009R0001 | | 0.250 | 1 |
| | 1.4-2.1 | 302086 | S501UC-K1.4-2.1 | 2CCF009012R0001 | | 0.250 | 1 |
| | 2-3 | 302093 | S501UC-K2-3 | 2CCF009015R0001 | | 0.250 | 1 |
| | 2.8-4.2 | 302109 | S501UC-K2.8-4.2 | 2CCF009018R0001 | | 0.250 | 1 |
| | 3.8-5.8 | 302116 | S501UC-K3.8-5.8 | 2CCF009021R0001 | | 0.250 | 1 |
| | 5.3-8 | 302123 | S501UC-K5.3-8 | 2CCF009024R0001 | | 0.250 | 1 |
| | 7.3-11 | 302130 | S501UC-K7.3-11 | 2CCF009027R0001 | | 0.250 | 1 |
| | 10-15 | 302147 | S501UC-K10-15 | 2CCF009030R0001 | | 0.250 | 1 |
| | 14-20 | 302154 | S501UC-K14-20 | 2CCF009033R0001 | | 0.250 | 1 |
| | 18-26 | 302161 | S501UC-K18-26 | 2CCF009036R0001 | | 0.250 | 1 |
| | 23-32 | 302178 | S501UC-K23-32 | 2CCF009039R0001 | | 0.250 | 1 |
| | 29-37 | 302185 | S501UC-K29-37 | 2CCF009042R0001 | | 0.250 | 1 |
| | 34-41 | 302192 | S501UC-K34-41 | 2CCF009045R0001 | | 0.250 | 1 |
| | 38-45 | 302208 | S501UC-K38-45 | 2CCF009048R0001 | | 0.250 | 8 |

# MCBs
## S500UC series DC range, K characteristic






S502UC




S503UC

| Number of poles | Rated current In A | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 0.1-0.15 | 302253 | S502UC-K0.1-0.15 | 2CCF008989R0001 | | 0.500 | 1 |
| | 0.14-0.21 | 302260 | S502UC-K0.14-0.21 | 2CCF008992R0001 | | 0.500 | 1 |
| | 0.2-0.3 | 302277 | S502UC-K0.2-0.3 | 2CCF008995R0001 | | 0.500 | 1 |
| | 0.28-0.42 | 302284 | S502UC-K0.28-0.42 | 2CCF008998R0001 | | 0.500 | 1 |
| | 0.38-0.58 | 302291 | S502UC-K0.38-0.58 | 2CCF009001R0001 | | 0.500 | 1 |
| | 0.53-0.8 | 302307 | S502UC-K0.53-0.8 | 2CCF009004R0001 | | 0.500 | 1 |
| | 0.73-1.1 | 302314 | S502UC-K0.73-1.1 | 2CCF009007R0001 | | 0.500 | 1 |
| | 1-1.5 | 302321 | S502UC-K1-1.5 | 2CCF009010R0001 | | 0.500 | 1 |
| | 1.4-2.1 | 302338 | S502UC-K1.4-2.1 | 2CCF009013R0001 | | 0.500 | 1 |
| | 2-3 | 302345 | S502UC-K2-3 | 2CCF009016R0001 | | 0.500 | 1 |
| | 2.8-4.2 | 302352 | S502UC-K2.8-4.2 | 2CCF009019R0001 | | 0.500 | 1 |
| | 3.8-5.8 | 302369 | S502UC-K3.8-5.8 | 2CCF009022R0001 | | 0.500 | 1 |
| | 5.3-8 | 302376 | S502UC-K5.3-8 | 2CCF009025R0001 | | 0.500 | 1 |
| | 7.3-11 | 302383 | S502UC-K7.3-11 | 2CCF009028R0001 | | 0.500 | 1 |
| | 10-15 | 302390 | S502UC-K10-15 | 2CCF009031R0001 | | 0.500 | 1 |
| | 14-20 | 302406 | S502UC-K14-20 | 2CCF009034R0001 | | 0.500 | 1 |
| | 18-26 | 302413 | S502UC-K18-26 | 2CCF009037R0001 | | 0.500 | 1 |
| | 23-32 | 302420 | S502UC-K23-32 | 2CCF009040R0001 | | 0.500 | 1 |
| | 29-37 | 302437 | S502UC-K29-37 | 2CCF009043R0001 | | 0.500 | 1 |
| | 34-41 | 302444 | S502UC-K34-41 | 2CCF009046R0001 | | 0.500 | 1 |
| | 38-45 | 302451 | S502UC-K38-45 | 2CCF009049R0001 | | 0.500 | 1 |

| Number of poles | Rated current In A | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 0.1-0.15 | 302505 | S503UC-K0.1-0.15 | 2CCF008990R0001 | | 0.750 | 1 |
| | 0.14-0.21 | 302512 | S503UC-K0.14-0.21 | 2CCF008993R0001 | | 0.750 | 1 |
| | 0.2-0.3 | 302529 | S503UC-K0.2-0.3 | 2CCF008996R0001 | | 0.750 | 1 |
| | 0.28-0.42 | 302536 | S503UC-K0.28-0.42 | 2CCF008999R0001 | | 0.750 | 1 |
| | 0.38-0.58 | 302543 | S503UC-K0.38-0.58 | 2CCF009002R0001 | | 0.750 | 1 |
| | 0.53-0.8 | 302550 | S503UC-K0.53-0.8 | 2CCF009005R0001 | | 0.750 | 1 |
| | 0.73-1.1 | 302567 | S503UC-K0.73-1.1 | 2CCF009008R0001 | | 0.750 | 1 |
| | 1-1.5 | 302574 | S503UC-K1-1.5 | 2CCF009011R0001 | | 0.750 | 1 |
| | 1.4-2.1 | 302581 | S503UC-K1.4-2.1 | 2CCF009014R0001 | | 0.750 | 1 |
| | 2-3 | 302598 | S503UC-K2-3 | 2CCF009017R0001 | | 0.750 | 1 |
| | 2.8-4.2 | 302604 | S503UC-K2.8-4.2 | 2CCF009020R0001 | | 0.750 | 1 |
| | 3.8-5.8 | 302611 | S503UC-K3.8-5.8 | 2CCF009023R0001 | | 0.750 | 1 |
| | 5.3-8 | 302628 | S503UC-K5.3-8 | 2CCF009026R0001 | | 0.750 | 1 |
| | 7.3-11 | 302635 | S503UC-K7.3-11 | 2CCF009029R0001 | | 0.750 | 1 |
| | 10-15 | 302642 | S503UC-K10-15 | 2CCF009032R0001 | | 0.750 | 1 |
| | 14-20 | 302659 | S503UC-K14-20 | 2CCF009035R0001 | | 0.750 | 1 |
| | 18-26 | 302666 | S503UC-K18-26 | 2CCF009038R0001 | | 0.750 | 1 |
| | 23-32 | 302673 | S503UC-K23-32 | 2CCF009041R0001 | | 0.750 | 1 |
| | 29-37 | 302680 | S503UC-K29-37 | 2CCF009044R0001 | | 0.750 | 1 |
| | 34-41 | 302697 | S503UC-K34-41 | 2CCF009047R0001 | | 0.750 | 1 |
| | 38-45 | 302703 | S503UC-K38-45 | 2CCF009050R0001 | | 0.750 | 1 |

**Where to find more:**
Back-up coordination tables for S500 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S500 MCBs p.4/68

| Number of poles | Rated current In A | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 0.1-0.15 | 302758 | S504UC-K0,15 | 2CCF011771R0001 | | 0,92 | 1 |
| | 0.14-0.21 | 302765 | S504UC-K0,21 | 2CCF011772R0001 | | 0,92 | 1 |
| | 0.2-0.3 | 302772 | S504UC-K0,3 | 2CCF011576R0001 | | 0,92 | 1 |
| | 0.28-0.42 | 302789 | S504UC-K0,42 | 2CCF011773R0001 | | 0,92 | 1 |
| | 0.38-0.58 | 302796 | S504UC-K0,58 | 2CCF011774R0001 | | 0,92 | 1 |
| | 0.53-0.8 | 302802 | S504UC-K0,8 | 2CCF011775R0001 | | 0,92 | 1 |
| | 0.73-1.1 | 302819 | S504UC-K1,1 | 2CCF011776R0001 | | 0,92 | 1 |
| | 1-1.5 | 302826 | S504UC-K1,5 | 2CCF011777R0001 | | 0,92 | 1 |
| | 1.4-2.1 | 302833 | S504UC-K2,1 | 2CCF011778R0001 | | 0,92 | 1 |
| | 2-3 | 302840 | S504UC-K3 | 2CCF011779R0001 | | 0,92 | 1 |
| | 2.8-4.2 | 302857 | S504UC-K4,2 | 2CCF011780R0001 | | 0,92 | 1 |
| | 3.8-5.8 | 302864 | S504UC-K5,8 | 2CCF011781R0001 | | 0,92 | 1 |
| | 5.3-8 | 302871 | S504UC-K8 | 2CCF011782R0001 | | 0,92 | 1 |
| | 7.3-11 | 302888 | S504UC-K11 | 2CCF011509R0001 | | 0,92 | 1 |
| | 10-15 | 302895 | S504UC-K15 | 2CCF011783R0001 | | 0,92 | 1 |
| | 14-20 | 302901 | S504UC-K20 | 2CCF011784R0001 | | 0,92 | 1 |
| | 18-26 | 302918 | S504UC-K26 | 2CCF011785R0001 | | 0,92 | 1 |
| | 23-32 | 302925 | S504UC-K32 | 2CCF011786R0001 | | 0,92 | 1 |
| | 29-37 | 302932 | S504UC-K37 | 2CCF011787R0001 | | 0,92 | 1 |
| | 34-41 | 302949 | S504UC-K41 | 2CCF011788R0001 | | 0,92 | 1 |
| | 38-45 | 302956 | S504UC-K45 | 2CCF011789R0001 | | 0,92 | 1 |

# MCBs
## S500HV series for applications up to 1000 VAC, K characteristic






**S501HV**

### Icu = 1.5 kA

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 0403454 | S501HV-K1-580V | 2CCF017747R0001 | | 0.25 | 1 |
| | 3 | 0424160 | S501HV-K3-580V | 2CCF015787R0001 | | 0.25 | 1 |
| | 4 | 0424184 | S501HV-K4-580V | 2CCF015790R0001 | | 0.25 | 1 |
| | 6 | 0424214 | S501HV-K6-580V | 2CCF015793R0001 | | 0.25 | 1 |
| | 8 | 0424245 | S501HV-K8-580V | 2CCF015796R0001 | | 0.25 | 1 |
| | 10 | 0424276 | S501HV-K10-580V | 2CCF015799R0001 | | 0.25 | 1 |
| | 13 | 0424306 | S501HV-K13-580V | 2CCF015802R0001 | | 0.25 | 1 |
| | 16 | 0424337 | S501HV-K16-580V | 2CCF015805R0001 | | 0.25 | 1 |
| | 20 | 0424368 | S501HV-K20-580V | 2CCF015808R0001 | | 0.25 | 1 |
| | 25 | 0424399 | S501HV-K25-580V | 2CCF015811R0001 | | 0.25 | 1 |
| | 32 | 0424429 | S501HV-K32-580V | 2CCF015814R0001 | | 0.25 | 1 |
| | 40 | 0424450 | S501HV-K40-580V | 2CCF015817R0001 | | 0.25 | 1 |
| | 45 | 0424481 | S501HV-K45-580V | 2CCF015820R0001 | | 0.25 | 1 |




**S502HV**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 1 | 1407810 | S502HV-K1-1000V | 2CCF017961R0001 | | 0.50 | 1 |
| | 3 | 0424177 | S502HV-K3-1000V | 2CCF015788R0001 | | 0.50 | 1 |
| | 4 | 0424191 | S502HV-K4-1000V | 2CCF015791R0001 | | 0.50 | 1 |
| | 6 | 0424221 | S502HV-K6-1000V | 2CCF015794R0001 | | 0.50 | 1 |
| | 8 | 0424252 | S502HV-K8-1000V | 2CCF015797R0001 | | 0.50 | 1 |
| | 10 | 0424283 | S502HV-K10-1000V | 2CCF015800R0001 | | 0.50 | 1 |
| | 13 | 0424313 | S502HV-K13-1000V | 2CCF015803R0001 | | 0.50 | 1 |
| | 16 | 0424344 | S502HV-K16-1000V | 2CCF015806R0001 | | 0.50 | 1 |
| | 20 | 0424375 | S502HV-K20-1000V | 2CCF015809R0001 | | 0.50 | 1 |
| | 25 | 0424405 | S502HV-K25-1000V | 2CCF015812R0001 | | 0.50 | 1 |
| | 32 | 0424436 | S502HV-K32-1000V | 2CCF015815R0001 | | 0.50 | 1 |
| | 40 | 0424467 | S502HV-K40-1000V | 2CCF015818R0001 | | 0.50 | 1 |
| | 45 | 0424498 | S502HV-K45-1000V | 2CCF015821R0001 | | 0.50 | 1 |




**S503HV**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 3 | 1 | 0403461 | S503HV-K1-1000V | 2CCF017748R0001 | | 0.71 | 1 |
| | 3 | 0500499 | S503HV-K3-1000V | 2CCF015827R0001 | | 0.71 | 1 |
| | 4 | 0424207 | S503HV-K4-1000V | 2CCF015792R0001 | | 0.71 | 1 |
| | 6 | 0424238 | S503HV-K6-1000V | 2CCF015795R0001 | | 0.71 | 1 |
| | 8 | 0424269 | S503HV-K8-1000V | 2CCF015798R0001 | | 0.71 | 1 |
| | 10 | 0424290 | S503HV-K10-1000V | 2CCF015801R0001 | | 0.71 | 1 |
| | 13 | 0424320 | S503HV-K13-1000V | 2CCF015804R0001 | | 0.71 | 1 |
| | 16 | 0424351 | S503HV-K16-1000V | 2CCF015807R0001 | | 0.71 | 1 |
| | 20 | 0424382 | S503HV-K20-1000V | 2CCF015810R0001 | | 0.71 | 1 |
| | 25 | 0424412 | S503HV-K25-1000V | 2CCF015813R0001 | | 0.71 | 1 |
| | 32 | 0424443 | S503HV-K32-1000V | 2CCF015816R0001 | | 0.71 | 1 |
| | 40 | 0424474 | S503HV-K40-1000V | 2CCF015819R0001 | | 0.71 | 1 |
| | 45 | 0424504 | S503HV-K45-1000V | 2CCF015822R0001 | | 0.71 | 1 |

**Where to find more:**
Back-up coordination tables for S500 MCBs: Chapter 2 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

**Maybe you are also interested in:**
Auxiliary elements for S500 MCBs p.4/68

# Solutions for electrical distribution in buildings
## Residual current devices


Quick selection of RCDs for household and industrial applications 3/2

**RCCBs**

F 200 3/4
F 200 for overseas markets 3/10
F 200 left neutral 3/11
F 200 AP-R (high immunity) 3/15
F 200 110 V 3/17
F 200 for high frequency and railways applications 3/18
F 200 B type 3/20
F 200 F-ATI and F-ARI 3/24

**RCD-blocks**

DDA 200 3/28
DDA 200 special version 110 V and 400 V 3/34
DDA 200 AP-R 3/35
DDA 200 AE for emergency stop 3/36
DDA 200 selective 3/37
DDA 200 B APR 3/38

**RCBOs**

DS201 L 3/42
DS201 3/47
DS201 T 3/53
DS201 M 3/54
DS201 M 110V 3/60
DS202C 3/62
DS202C M 3/66
DS202C M 110V 3/70
DS203NC L 3/74
DS203NC 3/79
DS 200 3/86
DS 200 M 3/95

**RCD-blocks**

DDA 800 3/100

**RCBOs**

DS800S, DS800N 3/106
DS 271 3/114

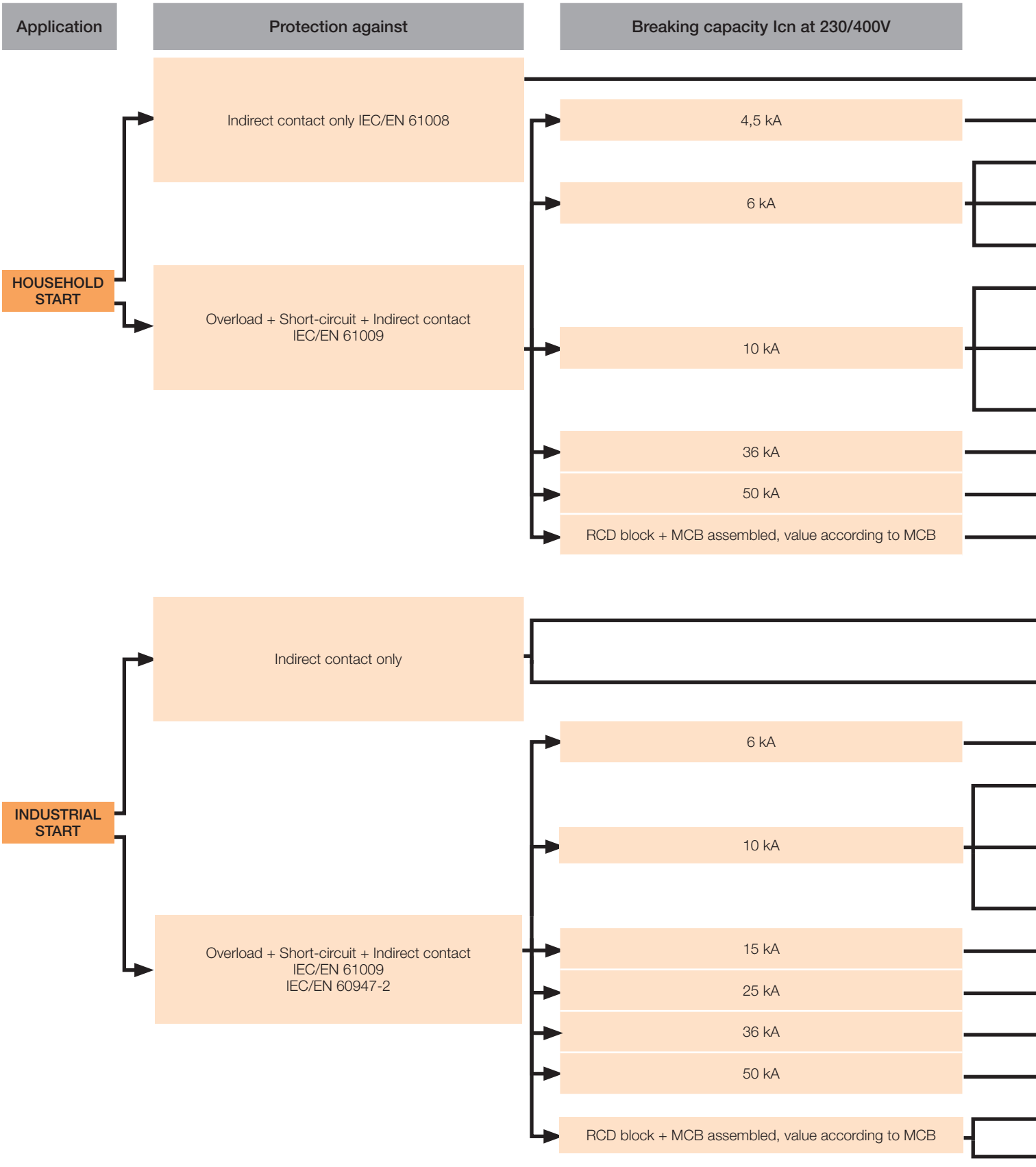
**Residual current relays**

RD2 3/118
RD3 3/119
ELR front panel residual current relays 3/121
TR toroidal transformers 3/122

# System pro *M* compact®
## Quick selection of RCDs for household and industrial applications

Easy! Find the right range and the corresponding catalogue page at a glance using this selection chart.





| Rated current | Remark | Poles | Solution | Page |
|---|---|---|---|---|
| Up to 125 A | | All poles | F200 | 3/8 |
| Up to 32 A | | 1P+N | DS201 L | 3/44 |
| Up to 32 A | Reduced size | 2P | DS202C | 3/64 |
| Up to 40 A | Reduced size | 1P+N | DS201 | 3/47 |
| Up to 63 A | Standard size | All poles | DS 200 | 3/90 |
| Up to 32 A | Reduced size | 2P | DS202C M | 3/66 |
| Up to 40 A | Reduced size | 1P+N | DS201 M | 3/54 |
| | Voltage dependent | 1P+N | DS 271 | 3/116 |
| Up to 63 A | Standard size | All poles | DS 200 M | 3/95 |
| Up to 125 A | | All poles | DS800N | 3/108 |
| Up to 125 A | | All poles | DS800S | 3/108 |
| Up to 63 A | RCD: IEC/EN 61009 Ann. G | All poles | DDA 200 + S200 | 3/30 + 2/12 |
| Up to 125 A | IEC/EN 61008 | All poles | F200 | 3/8 |
| According to MCB | IEC/EN 62020 | All poles | RD2 | 3/118 |
| | IEC/EN 60947-2 Ann. M | All poles | RD3 | 3/119 |
| Up to 32 A | | 1P+N | DS201 L | 3/44 |
| Up to 32 A | | 2P | DS202C, DS202C M | 3/64, 3/66 |
| Up to 40 A | | 1P+N | DS201, DS201 M | 3/47, 3/54 |
| | Voltage dependent | 1P+N | DS 271 | 3/116 |
| Up to 63 A | | All poles | DS 200 | 3/90 |
| Up to 63 A | | All poles | DS 200 M | 3/95 |
| Up to 100 A | | All poles | DDA800 + S800C | 3/102 + 2/106 |
| Up to 125 A | | All poles | DS800N | 3/108 |
| Up to 125 A | | All poles | DS800S | 3/108 |
| Up to 63 A | RCD: IEC/EN 61009 Ann. G | All poles | DDA 200 + S200 | 3/30 + 2/12 |
| Up to 100 A | RCD: IEC/EN 60947-2 Ann. B | All poles | DDA 800 + S800 | 3/102 + 2/82 |

# RCCB F 200. The details make the difference
## A range designed to ensure efficiency and protection



Bi-directional cylindrical terminal ensure higher safety of connecting operations, making them easier.

Test pushbutton to verify the correct functioning of the device.




Contact position indicator (CPI): to always know the status of the contacts (red: closed contacts; green: open contacts) independently on the toggle position

Information on the device are laser printed to make them clearly visible and long lasting.

Laser-marked order code on the front to make easier future orders.



Two terminals are available, the fore one for cables up to 25 mm$^2$, the back one for cables up to 10 mm$^2$ or for busbars.




RCCBs F200 can be used in ambient conditions where the temperature of the surrounding atmosphere has values between -25°C (snowflake laser printed on the front of the device) and +55°C.



The availability of two terminals offers different connection solutions thanks to the possibility to connect two indipendent cables in the same device: the second terminal can be used for an auxiliary circuit or for the supply of devices with small section cables without connecting them together with the main circuit.



All the safety ensured by the international marks: approvals' marking in a visible area, even if RCDs is installed and with the panel-door closed.




High performances:
- rated breaking capacity and rated residual breaking capacity laser printed on the device: Im=IΔm= 1000 A
- coordination with a 100 A rated current SCPD (short-circuit protective device) = 10000 A.



The F 202 can be coupled with the autoreclosing unit F2C-ARH in order to ensure continuity of service for the whole installation of your home avo ding lack of supply.

# RCCBs
## F200 technical features




3

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated current In | | A |
| | Rated sensitivity IΔn | | A |
| | Rated voltage Ue | IEC | V |
| | | UL/CSA | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | IEC | V |
| | | UL/CSA | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Rated conditional short-circuit current Inc=IΔ③ | SCPD - fuse gG 100 A | kA |
| | Rated residual breaking capacity IΔm=Im | | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Overvoltage category | | |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Contact position indicator (CPI) | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Ambient temperature (with daily average ≤ +35 °C) | IEC | °C |
| | Storage temperature | | °C |
| Installation | Terminal type | | |
| | Terminal size top/bottom for cable | IEC | $mm^2$ |
| | | UL/CSA | AWG |
| | Terminal size top/bottom for busbar | IEC | $mm^2$ |
| | | UL/CSA | AWG |
| | Tightening torque | IEC | Nm |
| | | UL/CSA | in-lbs. |
| | Tool | | |
| | Mounting | | |
| | Connection | | |
| | Withdrawal from busbar | | |
| Dimensions and weight | Dimensions (H x D x W) | 2P | mm |
| | | 4P | mm |
| | Weight | 2P | g |
| | | 4P | g |
| Combination with auxiliary elements | Combinable with: | auxiliary contact | |
| | | signal contact/auxiliary switch | |
| | | shunt trip | |
| | | undervoltage release | |

① Ground-fault sensing and relaying equipment-component (up to 63 A)
② prior to connection of aluminium conductors (≥ 4 $mm^2$) ensure that their contact points are cleaned, brushed and coated with grease
③ for S700-E/K 100A, S750-E 63A, S750DR-E/K 63A and other SCPD coordination values see Chapter 3 of Solutions for electrical distribution in buildings - technical details
④ F200 left neutral has not the UL certification and the UL mark
⑤ Only for versions with marking according to EN 61008-1; EN 61008-2-1

| | F200 AC | F200 A | F200 A AP-R | F200 A S | F200 A 110V | F200 A 400 Hz | F200 A 16 2/3 Hz |
|---|---|---|---|---|---|---|---|
| | IEC/EN 61008-1; IEC/EN 61008-2-1, UL 1053 ① | | | | IEC 61008-1; IEC 61008-2-1; UL 1053 | IEC/EN 61008-1; IEC/EN 61008-2-1 | IEC/EN 61008-1; IEC/EN 61008-2-1 |
| | AC | A | A | A | A | A | A |
| | 2P, 4P (for 125 A only 4P) | | | | 2P, 4P | 4P | 2P, 4P |
| | 16, 25, 40, 63, 80, 100, 125 | | 25, 40, 63, 80, 100, 125 | 40, 63, 80, 100, 125 | 25, 40, 63, 80, 100 | 25, 40 | 63 |
| | 0.01-0.03-0.1-0.3-0.5 | | 0.03 | 0.1-0.3-0.5-1 | 0.03 | 0.03 | 0.03-0.3-0.5 |
| | 230/400 - 240/415 | | | | | | |
| | 480Y/277 (up to 100 A) | | | | - | - | |
| | 500 | | | | | | |
| | 254 (440 for 125 A); 440 for F 200 left neutral<br>254 (250 for 125 A); 440 for F 200 left neutral for IΔn = 30 mA ⑤ | | | | 254 | 254 | 254 |
| | 277 (up to 100 A); 480 for F 200 left neutral ④ | | | | - | - | |
| | 110 (185 for 125 A); 195 for F 200 left neutral<br>170 (150 for 125 A); 300 for F 200 left neutral for IΔn = 30 mA ⑤ | | | | 110 | 170 | 110, 170 for IΔn=30mA |
| | 50…60 | | | | | 50...400 | 16 2/3 |
| | 10 (for 125 A fuse is gG 125 A) | | | | | | |
| | 1 (1.25 for 125 A) | | | | | | |
| | 4 | | | | | | |
| | 2.5 | | | | | | |
| | III, disconnector abilities | | | | | | |
| | 250 | | 3000 | 5000 | 250 | 250 | 250 |
| | blue sealable in ON-OFF position | | | | | | |
| | yes | | | | | | |
| | 10000 (2000 for 125 A) | | | | 10000 | 10000 | 10000 |
| | 20000 (5000 for 125 A) | | | | 20000 | 20000 | 20000 |
| | IP4X | | | | | | |
| | IP2X | | | | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | | | | |
| | -25…+55 (-25...+40 for 125 A) | | | | -25...+55 | -25...+55 | -25...+55 |
| | -40…+70 | | | | | | |
| | failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for In > 63 A) ② | | | | | | |
| | 25/25 (35/35 single slot terminal for In > 63 A) | | | | | 25/25 | 25/25 |
| | 18-4 (up to 63 A) | | | | - | - | |
| | 10/10 (not for In = 80-100 A) | | | | | 10/10 | 10/10 |
| | 18-8 (up to 63 A) | | | | - | - | |
| | 2.8 (3 for In = 125 A) | | | | 2.8 | 2.8 | 2.8 |
| | 25 (up to 63 A) | | | | - | - | |
| | Nr. 2 Pozidriv | | | | | | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | | | | | | |
| | from top and bottom | | | | | | |
| | it is possible without using any tools only from the bottom (not for 125 A) | | | | | | |
| | 85 x 69 x 35 | | | | | - | |
| | 85 x 69 x 70 (85 x 69.5 x 72 for 125 A) | | | | | 85 x 69 x 70 | 85 x 69 x 70 |
| | 200 | | | | | - | |
| | 350 (380 for In = 80 and 100 A and 460 for In = 125A) | | | | | 350 | 350 |
| | yes (no for 125 A) | | | | | yes | yes |
| | yes | | | | | yes | yes |
| | yes (no for 125 A) | | | | | yes | yes |
| | yes (no for 125 A) | | | | | yes | yes |

# RCCBs
# F 200 series AC type




F202



## F 200 AC type

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).
**Application: residential, commercial, industrial.**
**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**
**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 16 | 779902 | F202 AC-16/0.01 | 2CSF202001R0160 | | 0.225 | 1/6 |
| | | 25 | 738022 | F202 AC-25/0.01 | 2CSF202001R0250 | | 0.225 | 1/6 |
| | 30 | 25 | 780007 | F202 AC-25/0.03 | 2CSF202001R1250 | | 0.225 | 1/6 |
| | | 40 | 780106 | F202 AC-40/0.03 | 2CSF202001R1400 | | 0.225 | 1/6 |
| | | 63 | 780205 | F202 AC-63/0.03 | 2CSF202001R1630 | | 0.225 | 1/6 |
| | | 80 | 914204 | F202 AC-80/0.03 | 2CSF202001R1800 | | 0.225 | 1/6 |
| | | 100 | 914303 | F202 AC-100/0.03 | 2CSF202001R1900 | | 0.225 | 1/6 |
| | 100 | 25 | 780304 | F202 AC-25/0.1 | 2CSF202001R2250 | | 0.225 | 1/6 |
| | | 40 | 780403 | F202 AC-40/0.1 | 2CSF202001R2400 | | 0.225 | 1/6 |
| | | 63 | 780502 | F202 AC-63/0.1 | 2CSF202001R2630 | | 0.225 | 1/6 |
| | | 80 | 914402 | F202 AC-80/0.1 | 2CSF202001R2800 | | 0.225 | 1/6 |
| | | 100 | 914501 | F202 AC-100/0.1 | 2CSF202001R2900 | | 0.225 | 1/6 |
| | 300 | 25 | 780601 | F202 AC-25/0.3 | 2CSF202001R3250 | | 0.225 | 1/6 |
| | | 40 | 780700 | F202 AC-40/0.3 | 2CSF202001R3400 | | 0.225 | 1/6 |
| | | 63 | 780809 | F202 AC-63/0.3 | 2CSF202001R3630 | | 0.225 | 1/6 |
| | | 80 | 914600 | F202 AC-80/0.3 | 2CSF202001R3800 | | 0.225 | 1/6 |
| | | 100 | 914709 | F202 AC-100/0.3 | 2CSF202001R3900 | | 0.225 | 1/6 |
| | 500 | 25 | 780908 | F202 AC-25/0.5 | 2CSF202001R4250 | | 0.225 | 1/6 |
| | | 40 | 781004 | F202 AC-40/0.5 | 2CSF202001R4400 | | 0.225 | 1/6 |
| | | 63 | 781103 | F202 AC-63/0.5 | 2CSF202001R4630 | | 0.225 | 1/6 |
| | | 80 | 914808 | F202 AC-80/0.5 | 2CSF202001R4800 | | 0.225 | 1/6 |
| | | 100 | 914907 | F202 AC-100/0.5 | 2CSF202001R4900 | | 0.225 | 1/6 |

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide Marks and Approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2 - 4/40
Accessories for RCDs p.4/20
Busbar systems p.4/25




F204




F204 125 A

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 781202 | F204 AC-25/0.03 | 2CSF204001R1250 | | 0.375 | 1/3 |
| | | 40 | 781301 | F204 AC-40/0.03 | 2CSF204001R1400 | | 0.375 | 1/3 |
| | | 63 | 781400 | F204 AC-63/0.03 | 2CSF204001R1630 | | 0.375 | 1/3 |
| | | 80 | 916604 | F204 AC-80/0.03 | 2CSF204001R1800 | | 0.405 | 1/3 |
| | | 100 | 916703 | F204 AC-100/0.03 | 2CSF204001R1900 | | 0.405 | 1/3 |
| | | 125 | 941507 | F204 AC-125/0.03 | 2CSF204001R1950 | | 0.500 | 1 |
| | 100 | 25 | 781509 | F204 AC-25/0.1 | 2CSF204001R2250 | | 0.375 | 1/3 |
| | | 40 | 781608 | F204 AC-40/0.1 | 2CSF204001R2400 | | 0.375 | 1/3 |
| | | 63 | 781707 | F204 AC-63/0.1 | 2CSF204001R2630 | | 0.375 | 1/3 |
| | | 80 | 916802 | F204 AC-80/0.1 | 2CSF204001R2800 | | 0.405 | 1/3 |
| | | 100 | 916901 | F204 AC-100/0.1 | 2CSF204001R2900 | | 0.405 | 1/3 |
| | | 125 | 941606 | F204 AC-125/0.1 | 2CSF204001R2950 | | 0.500 | 1 |
| | 300 | 25 | 781806 | F204 AC-25/0.3 | 2CSF204001R3250 | | 0.375 | 1/3 |
| | | 40 | 781905 | F204 AC-40/0.3 | 2CSF204001R3400 | | 0.375 | 1/3 |
| | | 63 | 782001 | F204 AC-63/0.3 | 2CSF204001R3630 | | 0.375 | 1/3 |
| | | 80 | 917007 | F204 AC-80/0.3 | 2CSF204001R3800 | | 0.405 | 1/3 |
| | | 100 | 917106 | F204 AC-100/0.3 | 2CSF204001R3900 | | 0.405 | 1/3 |
| | | 125 | 941705 | F204 AC-125/0.3 | 2CSF204001R3950 | | 0.500 | 1 |
| | 500 | 25 | 782100 | F204 AC-25/0.5 | 2CSF204001R4250 | | 0.375 | 1/3 |
| | | 40 | 782209 | F204 AC-40/0.5 | 2CSF204001R4400 | | 0.375 | 1/3 |
| | | 63 | 782308 | F204 AC-63/0.5 | 2CSF204001R4630 | | 0.375 | 1/3 |
| | | 80 | 917205 | F204 AC-80/0.5 | 2CSF204001R4800 | | 0.405 | 1/3 |
| | | 100 | 917304 | F204 AC-100/0.5 | 2CSF204001R4900 | | 0.405 | 1/3 |
| | | 125 | 941804 | F204 AC-125/0.5 | 2CSF204001R4950 | | 0.500 | 1 |

# RCCBs
## F 200 series AC type, for overseas markets




F202




F204

### F 200 AC type (for overseas markets)

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to IEC 61008-1; IEC 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 16 | 814603 | F202 AC-16/0.01 | 2CSF202005R0160 | | 0.225 | 1/6 |
| | 30 | 25 | 814702 | F202 AC-25/0.03 | 2CSF202005R1250 | | 0.225 | 1/6 |
| | | 40 | 814801 | F202 AC-40/0.03 | 2CSF202005R1400 | | 0.225 | 1/6 |
| | | 63 | 814900 | F202 AC-63/0.03 | 2CSF202005R1630 | | 0.225 | 1/6 |
| | | 80 | 935902 | F202 AC-80/0.03 | 2CSF202005R1800 | | 0.225 | 1/6 |
| | | 100 | 936008 | F202 AC-100/0.03 | 2CSF202005R1900 | | 0.225 | 1/6 |
| | 100 | 25 | 815006 | F202 AC-25/0.1 | 2CSF202005R2250 | | 0.225 | 1/6 |
| | | 40 | 815105 | F202 AC-40/0.1 | 2CSF202005R2400 | | 0.225 | 1/6 |
| | | 63 | 815204 | F202 AC-63/0.1 | 2CSF202005R2630 | | 0.225 | 1/6 |
| | | 80 | 936107 | F202 AC-80/0.1 | 2CSF202005R2800 | | 0.225 | 1/6 |
| | | 100 | 936206 | F202 AC-100/0.1 | 2CSF202005R2900 | | 0.225 | 1/6 |
| | 300 | 25 | 815303 | F202 AC-25/0.3 | 2CSF202005R3250 | | 0.225 | 1/6 |
| | | 40 | 815402 | F202 AC-40/0.3 | 2CSF202005R3400 | | 0.225 | 1/6 |
| | | 63 | 815501 | F202 AC-63/0.3 | 2CSF202005R3630 | | 0.225 | 1/6 |
| | | 80 | 936305 | F202 AC-80/0.3 | 2CSF202005R3800 | | 0.225 | 1/6 |
| | | 100 | 936404 | F202 AC-100/0.3 | 2CSF202005R3900 | | 0.225 | 1/6 |
| | 500 | 80 | 936503 | F202 AC-80/0.5 | 2CSF202005R4800 | | 0.225 | 1/6 |
| | | 100 | 936602 | F202 AC-100/0.5 | 2CSF202005R4900 | | 0.225 | 1/6 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 817109 | F204 AC-25/0.03 | 2CSF204005R1250 | | 0.375 | 1/3 |
| | | 40 | 817208 | F204 AC-40/0.03 | 2CSF204005R1400 | | 0.375 | 1/3 |
| | | 63 | 817307 | F204 AC-63/0.03 | 2CSF204005R1630 | | 0.375 | 1/3 |
| | | 80 | 936701 | F204 AC-80/0.03 | 2CSF204005R1800 | | 0.405 | 1/3 |
| | | 100 | 936800 | F204 AC-100/0.03 | 2CSF204005R1900 | | 0.405 | 1/3 |
| | 100 | 25 | 817406 | F204 AC-25/0.1 | 2CSF204005R2250 | | 0.375 | 1/3 |
| | | 40 | 817505 | F204 AC-40/0.1 | 2CSF204005R2400 | | 0.375 | 1/3 |
| | | 63 | 817604 | F204 AC-63/0.1 | 2CSF204005R2630 | | 0.375 | 1/3 |
| | | 80 | 936909 | F204 AC-80/0.1 | 2CSF204005R2800 | | 0.405 | 1/3 |
| | | 100 | 937005 | F204 AC-100/0.1 | 2CSF204005R2900 | | 0.405 | 1/3 |
| | 300 | 25 | 817703 | F204 AC-25/0.3 | 2CSF204005R3250 | | 0.375 | 1/3 |
| | | 40 | 817802 | F204 AC-40/0.3 | 2CSF204005R3400 | | 0.375 | 1/3 |
| | | 63 | 817901 | F204 AC-63/0.3 | 2CSF204005R3630 | | 0.375 | 1/3 |
| | | 80 | 937104 | F204 AC-80/0.3 | 2CSF204005R3800 | | 0.405 | 1/3 |
| | | 100 | 937203 | F204 AC-100/0.3 | 2CSF204005R3900 | | 0.405 | 1/3 |
| | 500 | 80 | 937302 | F204 AC-80/0.5 | 2CSF204005R4800 | | 0.405 | 1/3 |
| | | 100 | 937401 | F204 AC-100/0.5 | 2CSF204005R4900 | | 0.405 | 1/3 |

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide Marks and Approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2 - 4/40
Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCCBs
## F 200 series AC type left neutral



F204 left neutral



F204 left neutral 125 A

### F 200 AC type with neutral pole on the left

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with In=30 mA). Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to EN 61008-1; EN 61008-2-1**



| Number of poles | Rated residual current In mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 815907 | F204 AC-25/0.03 | 2CSF204023R1250 | | 0.375 | 1/3 |
| | | 40 | 816003 | F204 AC-40/0.03 | 2CSF204023R1400 | | 0.375 | 1/3 |
| | | 63 | 816102 | F204 AC-63/0.03 | 2CSF204023R1630 | | 0.375 | 1/3 |
| | | 80 | 917403 | F204 AC-80/0.03 | 2CSF204023R1800 | | 0.405 | 1/3 |
| | | 100 | 917502 | F204 AC-100/0.03 | 2CSF204023R1900 | | 0.405 | 1/3 |
| | | 125 | 975106 | F204 AC-125/0.03 | 2CSF204023R1950 | | 0.500 | 1 |
| | 100 | 25 | 816201 | F204 AC-25/0.1 | 2CSF204023R2250 | | 0.375 | 1/3 |
| | | 40 | 816300 | F204 AC-40/0.1 | 2CSF204023R2400 | | 0.375 | 1/3 |
| | | 63 | 816409 | F204 AC-63/0.1 | 2CSF204023R2630 | | 0.375 | 1/3 |
| | 300 | 25 | 816508 | F204 AC-25/0.3 | 2CSF204023R3250 | | 0.375 | 1/3 |
| | | 40 | 816607 | F204 AC-40/0.3 | 2CSF204023R3400 | | 0.375 | 1/3 |
| | | 63 | 816706 | F204 AC-63/0.3 | 2CSF204023R3630 | | 0.375 | 1/3 |
| | | 80 | 917601 | F204 AC-80/0.3 | 2CSF204023R3800 | | 0.405 | 1/3 |
| | | 100 | 917700 | F204 AC-100/0.3 | 2CSF204023R3900 | | 0.405 | 1/3 |
| | | 125 | 975304 | F204 AC-125/0.3 | 2CSF204023R3950 | | 0.500 | 1 |
| | 500 | 25 | 816805 | F204 AC-25/0.5 | 2CSF204023R4250 | | 0.375 | 1/3 |
| | | 40 | 816904 | F204 AC-40/0.5 | 2CSF204023R4400 | | 0.375 | 1/3 |
| | | 63 | 817000 | F204 AC-63/0.5 | 2CSF204023R4630 | | 0.375 | 1/3 |

# RCCBs
## F 200 series A type




F202

### F 200 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 16 | 782407 | F202 A-16/0.01 | 2CSF202101R0160 | | 0.225 | 1/6 |
| | 30 | 25 | 782506 | F202 A-25/0.03 | 2CSF202101R1250 | | 0.225 | 1/6 |
| | | 40 | 782605 | F202 A-40/0.03 | 2CSF202101R1400 | | 0.225 | 1/6 |
| | | 63 | 782704 | F202 A-63/0.03 | 2CSF202101R1630 | | 0.225 | 1/6 |
| | | 80 | 915201 | F202 A-80/0.03 | 2CSF202101R1800 | | 0.225 | 1/6 |
| | | 100 | 915300 | F202 A-100/0.03 | 2CSF202101R1900 | | 0.225 | 1/6 |
| | 100 | 25 | 786900 | F202 A-25/0.1 | 2CSF202101R2250 | | 0.225 | 1/6 |
| | | 40 | 787006 | F202 A-40/0.1 | 2CSF202101R2400 | | 0.225 | 1/6 |
| | | 63 | 787105 | F202 A-63/0.1 | 2CSF202101R2630 | | 0.225 | 1/6 |
| | | 80 | 915409 | F202 A-80/0.1 | 2CSF202101R2800 | | 0.225 | 1/6 |
| | | 100 | 915508 | F202 A-100/0.1 | 2CSF202101R2900 | | 0.225 | 1/6 |
| | 300 | 25 | 782803 | F202 A-25/0.3 | 2CSF202101R3250 | | 0.225 | 1/6 |
| | | 40 | 782902 | F202 A-40/0.3 | 2CSF202101R3400 | | 0.225 | 1/6 |
| | | 63 | 783008 | F202 A-63/0.3 | 2CSF202101R3630 | | 0.225 | 1/6 |
| | | 80 | 915607 | F202 A-80/0.3 | 2CSF202101R3800 | | 0.225 | 1/6 |
| | | 100 | 915706 | F202 A-100/0.3 | 2CSF202101R3900 | | 0.225 | 1/6 |
| | 500 | 25 | 783107 | F202 A-25/0.5 | 2CSF202101R4250 | | 0.225 | 1/6 |
| | | 40 | 783206 | F202 A-40/0.5 | 2CSF202101R4400 | | 0.225 | 1/6 |
| | | 63 | 783305 | F202 A-63/0.5 | 2CSF202101R4630 | | 0.225 | 1/6 |
| | | 80 | 915805 | F202 A-80/0.5 | 2CSF202101R4800 | | 0.225 | 1/6 |
| | | 100 | 915904 | F202 A-100/0.5 | 2CSF202101R4900 | | 0.225 | 1/6 |

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2 - 4/40
Accessories for RCDs p.4/20
Busbar systems p.4/25


2CSC400569F0201

F204


2CSC400197F0201

F204 125 A

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 783404 | F204 A-25/0.03 | 2CSF204101R1250 | | 0.375 | 1/3 |
| | | 40 | 783503 | F204 A-40/0.03 | 2CSF204101R1400 | | 0.375 | 1/3 |
| | | 63 | 783602 | F204 A-63/0.03 | 2CSF204101R1630 | | 0.375 | 1/3 |
| | | 80 | 917809 | F204 A-80/0.03 | 2CSF204101R1800 | | 0.405 | 1/3 |
| | | 100 | 917908 | F204 A-100/0.03 | 2CSF204101R1900 | | 0.405 | 1/3 |
| | | 125 | 941903 | F204 A-125/0.03 | 2CSF204101R1950 | | 0.500 | 1 |
| | 100 | 25 | 787204 | F204 A-25/0.1 | 2CSF204101R2250 | | 0.375 | 1/3 |
| | | 40 | 787303 | F204 A-40/0.1 | 2CSF204101R2400 | | 0.375 | 1/3 |
| | | 63 | 787402 | F204 A-63/0.1 | 2CSF204101R2630 | | 0.375 | 1/3 |
| | | 80 | 918004 | F204 A-80/0.1 | 2CSF204101R2800 | | 0.405 | 1/3 |
| | | 100 | 918103 | F204 A-100/0.1 | 2CSF204101R2900 | | 0.405 | 1/3 |
| | | 125 | 942009 | F204 A-125/0.1 | 2CSF204101R2950 | | 0.500 | 1 |
| | 300 | 25 | 783701 | F204 A-25/0.3 | 2CSF204101R3250 | | 0.375 | 1/3 |
| | | 40 | 783800 | F204 A-40/0.3 | 2CSF204101R3400 | | 0.375 | 1/3 |
| | | 63 | 783909 | F204 A-63/0.3 | 2CSF204101R3630 | | 0.375 | 1/3 |
| | | 80 | 918202 | F204 A-80/0.3 | 2CSF204101R3800 | | 0.405 | 1/3 |
| | | 100 | 918301 | F204 A-100/0.3 | 2CSF204101R3900 | | 0.405 | 1/3 |
| | | 125 | 942108 | F204 A-125/0.3 | 2CSF204101R3950 | | 0.500 | 1 |
| | 500 | 25 | 784005 | F204 A-25/0.5 | 2CSF204101R4250 | | 0.375 | 1/3 |
| | | 40 | 784104 | F204 A-40/0.5 | 2CSF204101R4400 | | 0.375 | 1/3 |
| | | 63 | 784203 | F204 A-63/0.5 | 2CSF204101R4630 | | 0.375 | 1/3 |
| | | 80 | 918400 | F204 A-80/0.5 | 2CSF204101R4800 | | 0.405 | 1/3 |
| | | 100 | 918509 | F204 A-100/0.5 | 2CSF204101R4900 | | 0.405 | 1/3 |
| | | 125 | 942207 | F204 A-125/0.5 | 2CSF204101R4950 | | 0.500 | 1 |

# RCCBs
## F 200 series A type left neutral






F204 left neutral




F204 left neutral 125 A

### F 200 A type with neutral pole on the left

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA). Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 820109 | F204 A-25/0.03 | 2CSF204123R1250 | | 0.375 | 1/3 |
| | | 40 | 820208 | F204 A-40/0.03 | 2CSF204123R1400 | | 0.375 | 1/3 |
| | | 63 | 820307 | F204 A-63/0.03 | 2CSF204123R1630 | | 0.375 | 1/3 |
| | | 80 | 918608 | F204 A-80/0.03 | 2CSF204123R1800 | | 0.405 | 1/3 |
| | | 100 | 918707 | F204 A-100/0.03 | 2CSF204123R1900 | | 0.405 | 1/3 |
| | | 125 | 967705 | F204 A-125/0.03 | 2CSF204123R1950 | | 0.500 | 1 |
| | 100 | 25 | 820406 | F204 A-25/0.1 | 2CSF204123R2250 | | 0.375 | 1/3 |
| | | 40 | 820505 | F204 A-40/0.1 | 2CSF204123R2400 | | 0.375 | 1/3 |
| | | 63 | 820604 | F204 A-63/0.1 | 2CSF204123R2630 | | 0.375 | 1/3 |
| | 300 | 25 | 820703 | F204 A-25/0.3 | 2CSF204123R3250 | | 0.375 | 1/3 |
| | | 40 | 820802 | F204 A-40/0.3 | 2CSF204123R3400 | | 0.375 | 1/3 |
| | | 63 | 820901 | F204 A-63/0.3 | 2CSF204123R3630 | | 0.375 | 1/3 |
| | | 80 | 918806 | F204 A-80/0.3 | 2CSF204123R3800 | | 0.405 | 1/3 |
| | | 100 | 918905 | F204 A-100/0.3 | 2CSF204123R3900 | | 0.405 | 1/3 |
| | | 125 | 967804 | F204 A-125/0.3 | 2CSF204123R3950 | | 0.500 | 1 |
| | 500 | 25 | 821007 | F204 A-25/0.5 | 2CSF204123R4250 | | 0.375 | 1/3 |
| | | 40 | 821106 | F204 A-40/0.5 | 2CSF204123R4400 | | 0.375 | 1/3 |
| | | 63 | 821205 | F204 A-63/0.5 | 2CSF204123R4630 | | 0.375 | 1/3 |

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2 - 4/40
Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCCBs
## F 200 series A type, AP-R (high immunity)



F202



F204



F204 125 A



### F 200 AP-R, A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Surge current resistance (wave 8/20)=3000 A**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 785101 | F202 A-25/0.03 AP-R | 2CSF202401R1250 | | 0.225 | 1/6 |
| | | 40 | 785200 | F202 A-40/0.03 AP-R | 2CSF202401R1400 | | 0.225 | 1/6 |
| | | 63 | 785309 | F202 A-63/0.03 AP-R | 2CSF202401R1630 | | 0.225 | 1/6 |
| | | 80 | 916406 | F202 A-80/0.03 AP-R | 2CSF202401R1800 | | 0.225 | 1/6 |
| | | 100 | 916505 | F202 A-100/0.03 AP-R | 2CSF202401R1900 | | 0.225 | 1/6 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 785408 | F204 A-25/0.03 AP-R | 2CSF204401R1250 | | 0.375 | 1/3 |
| | | 40 | 785507 | F204 A-40/0.03 AP-R | 2CSF204401R1400 | | 0.375 | 1/3 |
| | | 63 | 785606 | F204 A-63/0.03 AP-R | 2CSF204401R1630 | | 0.375 | 1/3 |
| | | 80 | 919407 | F204 A-80/0.03 AP-R | 2CSF204401R1800 | | 0.405 | 1/3 |
| | | 100 | 919506 | F204 A-100/0.03 AP-R | 2CSF204401R1900 | | 0.405 | 1/3 |
| | | 125 | 967903 | F204 A-125/0.03 AP-R | 2CSF204401R1950 | | 0.500 | 1 |

# RCCBs
## F 200 series A type, selective






F202




F204




F204 125 A

### F 200 A selective type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Surge current resistance (wave 8/20)=5000 A**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 100 | 40 | 822905 | F202 A S-40/0.1 | 2CSF202201R2400 | | 0.225 | 1/6 |
| | | 63 | 823001 | F202 A S-63/0.1 | 2CSF202201R2630 | | 0.225 | 1/6 |
| | | 100 | 916000 | F202 A S-100/0.1 | 2CSF202201R2900 | | 0.225 | 1/6 |
| | 300 | 40 | 784302 | F202 A S-40/0.3 | 2CSF202201R3400 | | 0.225 | 1/6 |
| | | 63 | 784401 | F202 A S-63/0.3 | 2CSF202201R3630 | | 0.225 | 1/6 |
| | | 100 | 916109 | F202 A S-100/0.3 | 2CSF202201R3900 | | 0.225 | 1/6 |
| | 500 | 40 | 784500 | F202 A S-40/0.5 | 2CSF202201R4400 | | 0.225 | 1/6 |
| | | 63 | 784609 | F202 A S-63/0.5 | 2CSF202201R4630 | | 0.225 | 1/6 |
| | | 100 | 916208 | F202 A S-100/0.5 | 2CSF202201R4900 | | 0.225 | 1/6 |
| | 1000 | 40 | 823100 | F202 A S-40/1 | 2CSF202201R5400 | | 0.225 | 1/6 |
| | | 63 | 823209 | F202 A S-63/1 | 2CSF202201R5630 | | 0.225 | 1/6 |
| | | 100 | 916307 | F202 A S-100/1 | 2CSF202201R5900 | | 0.225 | 1/6 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 100 | 40 | 823308 | F204 A S-40/0.1 | 2CSF204201R2400 | | 0.375 | 1/3 |
| | | 63 | 823407 | F204 A S-63/0.1 | 2CSF204201R2630 | | 0.375 | 1/3 |
| | | 100 | 919001 | F204 A S-100/0.1 | 2CSF204201R2900 | | 0.405 | 1/3 |
| | 300 | 40 | 784708 | F204 A S-40/0.3 | 2CSF204201R3400 | | 0.375 | 1/3 |
| | | 63 | 784807 | F204 A S-63/0.3 | 2CSF204201R3630 | | 0.375 | 1/3 |
| | | 100 | 919100 | F204 A S-100/0.3 | 2CSF204201R3900 | | 0.405 | 1/3 |
| | | 125 | 968207 | F204 A S-125/0.3 | 2CSF204201R3950 | | 0.500 | 1 |
| | 500 | 40 | 784906 | F204 A S-40/0.5 | 2CSF204201R4400 | | 0.375 | 1/3 |
| | | 63 | 785002 | F204 A S-63/0.5 | 2CSF204201R4630 | | 0.375 | 1/3 |
| | | 100 | 919209 | F204 A S-100/0.5 | 2CSF204201R4900 | | 0.405 | 1/3 |
| | | 125 | 968405 | F204 A S-125/0.5 | 2CSF204201R4950 | | 0.500 | 1 |
| | 1000 | 40 | 823506 | F204 A S-40/1 | 2CSF204201R5400 | | 0.375 | 1/3 |
| | | 63 | 823605 | F204 A S-63/1 | 2CSF204201R5630 | | 0.375 | 1/3 |
| | | 100 | 919308 | F204 A S-100/1 | 2CSF204201R5900 | | 0.405 | 1/3 |

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
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Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCCBs
# F 200 110V series A type




F202 110V




F204 110V

## F 200 110V A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications. This range is UL approved.

**Application: residential, commercial, industrial.**

**Standard: IEC 61008-1; IEC 61008-2-1**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 343332 | F202 A-25/0.03 110V | 2CSF202199R1250 | | 0.225 | 1/6 |
| | | 40 | 343233 | F202 A-40/0.03 110V | 2CSF202199R1400 | | 0.225 | 1/6 |
| | | 63 | 343134 | F202 A-63/0.03 110V | 2CSF202199R1630 | | 0.225 | 1/6 |
| | | 80 | 343035 | F202 A-80/0.03 110V | 2CSF202199R1800 | | 0.225 | 1/6 |
| | | 100 | 342939 | F202 A-100/0.03 110V | 2CSF202199R1100 | | 0.225 | 1/6 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 776734 | F204 A-25/0.03 110V | 2CSF204199R1250 | | 0.375 | 1/3 |
| | | 40 | 342830 | F204 A-40/0.03 110V | 2CSF204199R1400 | | 0.375 | 1/3 |
| | | 63 | 342731 | F204 A-63/0.03 110V | 2CSF204199R1630 | | 0.375 | 1/3 |
| | | 80 | 358435 | F204 A-80/0.03 110V | 2CSF204199R1800 | | 0.405 | 1/3 |
| | | 100 | 079132 | F204 A-100/0.03 110V | 2CSF204199R1100 | | 0.405 | 1/3 |

# RCCBs
## F 200 series A type for high frequency and railways applications






F202




F204

### F 200 A type for high frequency (400 Hz)

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with IΔn=30 mA) contacts.

Advantages: increasing the frequency generates an increase of the magnetic reluctance of the toroidal transformer of standard RCCB and what follows is the value of the increasing operating residual current at 400 Hz reaching values 3 or more times higher than those of the residual current at 50Hz. The RCCB F 200 400 Hz guarantees protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA) considering that the operating residual current doesn't increase with the increase of the network frequency.

**Application: commercial, industrial.**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 968603 | F204 A-25/0.03 400Hz | 2CSF204197R1250 | | 0.375 | 1/3 |
| | | 40 | 968702 | F204 A-40/0.03 400Hz | 2CSF204197R1400 | | 0.375 | 1/3 |

### F200 A type 16 2/3 Hz

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

The RCCB F200 16 2/3 Hz can work at rated frequency of 16 2/3 Hz which is common in railways applications

**Application: railways**

**Standard: IEC/EN 61008-1; IEC/EN 61008-2-1**

**Marking: according to EN 61008-1; EN 61008-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 | 734536 | F202 A-63/0.03 16-2/3Hz | 2CSF202196R1630 | | 0.225 | 1/6 |
| | 300 | 63 | 733638 | F202 A-63/0.3 16-2/3Hz | 2CSF202196R3630 | | 0.225 | 1/6 |
| | 500 | 63 | 734437 | F202 A-63/0.5 16-2/3Hz | 2CSF202196R4630 | | 0.225 | 1/6 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 733539 | F204 A-63/0.03 16-2/3Hz | 2CSF204196R1630 | | 0.375 | 1/3 |
| | 300 | 63 | 734338 | F204 A-63/0.3 16-2/3Hz | 2CSF204196R3630 | | 0.375 | 1/3 |
| | 500 | 63 | 733430 | F204 A-63/0.5 16-2/3Hz | 2CSF204196R4630 | | 0.375 | 1/3 |

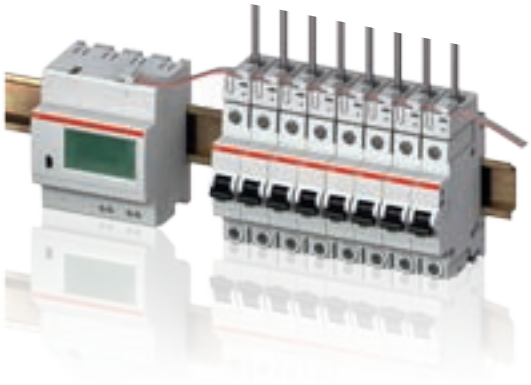
**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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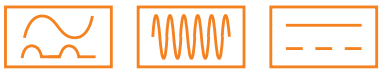




# F 200 series - B
## Details that make the difference



Type B residual current devices are marked according to EN 62423. The marking reminds the different current types that Type B residual current devices are sensitive to



Easy to connect and compatible with busbars thanks to the System pro *M* compact clamps




Sole two-pole device in only two modules on the market

VDE approved

Green LED to monitor operation of the residual current circuit breaker

Indication of the position of the contacts

Cutting-edge features: safety, service continuity, compactness, integration. These are the characteristics of the new F200 B RCCBs (residual current circuit breakers), the state-of-the-art technology by ABB which has been providing the best solutions for residential, commercial and industrial installations for over 120 years.
The F200 B Type is the ultimate novelty of the System pro M compact offering. The most compact device in the market. Type B RCCBs can be adapted perfectly to all types of installation requirements and application fields. The new F200 B Type can be perfectly integrated with all devices produced by ABB in terms of connection, selectivity data and coordination.



Compatible with all System pro *M* compact accessories of F200 series. Higher operational continuity thanks to auto-reclosing units and motor operating devices.

Operating temperature from -25 to +60 °C with high immunity for extremely harsh weather conditions.
F200 B can be installed either in two-phase and three-phase networks.

A lot of space saving thanks to the two poles device in just two modules. Coordination and back-up with all ABB devices.

# RCCBs
## F 200 series - B technical features



| | | | | New F200 B Type | | F200 B Type high ratings |
|---|---|---|---|---|---|---|
| | | | | F202 B 16-63 A | F204 B 25-63 A | F204 B 80-125 A |
| | Standards | | | IEC/EN 61008-1 EN 62423 | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | | B | | |
| | Poles | | | 2P | 4P | 4P |
| | Rated current $I_n$ | | A | 16, 25, 40, 63 | | 80, 125 |
| | Rated sensitivity $I_{\Delta n}$ | | A | 0,03 - 0,3 | 0,03 - 0,3 - 0,5 | 0,03 - 0,3 - 0,5 |
| | Rated voltage $U_e$ | IEC | V AC | 230 | 230/400 | |
| | Insulation voltage $U_i$ | | V | 500 | | |
| | Max. operating voltage of circuit test | IEC | V | 110/253 V AC<br>170/253 V AC (30 mA) | 185/440 V AC<br>300/440 V AC (30 mA) | |
| | Min. operating voltage for detecting Type A/ AC residual currents | | V AC | 0 | | |
| | Min. operating voltage for detecting Type B residual currents | | V AC | 50 | 50 | 50 |
| | Rated frequency | | Hz | 50/60 | | 50 |
| | Frequency range of residual current | | kHz | B: 2 | | B: 100 |
| | Rated conditional short-circuit current Inc=$I_{\Delta}$ [3] | SCPD - fuse gG 63 A | kA | 10 (for 125 A fuse is gG 125 A) | | |
| | Rated residual breaking capacity $I_{\Delta m}$=Im | | kA | 1 | | 125 A: 1,25 |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV | 4 | | |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV | 2,5 | | |
| | Overvoltage category | | | III, disconnector abilities | | |
| | Surge current resistance (wave 8/20) | | A | 3.000 | 3.000 - 5.000 (B S) | 3.000 - 5.000 (B S) |
| | Maximum electronic consumption | | W | 1,2 | 3,5 | 7,2 |
| Mechanical features | Toggle | | | Blue sealable in ON-OFF position | | |
| | Contact position indicator (CPI) | | | yes | | |
| | Electrical life | | | 10.000 | | 2.000 |
| | Mechanical life | | | 20.000 | | 5.000 |
| | Protection degree | housing | | IP4X | | |
| | | terminals | | IP2X | | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/ RH | 28 cycles with 55°C/90-96% and 25°C/95-100% | | |
| | Ambient temperature (with daily average ≤ +35 °C) | IEC | °C | -25…+60 | | -25…+40 |
| | Storage temperature | | °C | 40…+70 | | |
| Installation | Terminal Type | | | Failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for In > 63 A) [2] | | |
| | Min/Max Terminal size top/ bottom for cable | IEC | $Mm^2$ | 1 - 25 | | |
| | Terminal size top/bottom for busbar | IEC | $Mm^2$ | 10/10 | | |
| | Tightening torque | IEC | Nm | 2,8 | | 3 |
| | Tool | | | Flat tip PZ2 | | |
| | Mounting | | | Any position on DIN rail EN 60715 (35 mm) by means of fast clip device | | |
| | Supply | | | Top/bottom | | |
| | Withdrawal from busbar | | | It is possible without using any tools only from the bottom | | no |
| Dimensions and weight | Dimensions (H x D x W) | 2P | Mm | 85 x 69 x 35 | 85 x 69 x 70 | 85 x 69,5 x 72 |
| | Weight | 2P | g | 200 | 380 | 460 |
| Combination with auxiliary elementsi | Combinable with: | | | | | |
| | auxiliary contact | | | yes | | no |
| | signal contact/auxiliary switch | | | yes | | |
| | motor operating device | | | yes | | no |
| | shunt trip | | | yes | | no |
| | undervoltage release | | | yes | | no |

[1] "Ground-Fault Sensing and Relaying Equipment" (F200 up to 100 A)
[2] Prior to connection of aluminium conductors (≥ 4 $mm^2$) ensure that their contact points are cleaned, brushed and coated with grease
[3] for S700-E/K 100A, S750-E 63A, S750DR-E/K 63A and other SCPD coordination values are available.

# RCCBs
## F 200 series - B type for continuous, selective continuous type fault currents technical features



F202 B



F204 B



F204 B 100, 125 A

### New F200 B Type from 16 to 63 A

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 16 | 961932 | F202 B-16/0,03 | 2CSF202592R1160 | | 0,220 | 1 |
| | | 25 | 961734 | F202 B-25/0,03 | 2CSF202592R1250 | | 0,220 | 1 |
| | | 40 | 960737 | F202 B-40/0,03 | 2CSF202592R1400 | | 0,220 | 1 |
| | | 63 | 629634 | F202 B-63/0,03 | 2CSF202592R1630 | | 0,220 | 1 |
| | 300 | 16 | 372233 | F202 B-16/0,3 | 2CSF202592R3160 | | 0,220 | 1 |
| | | 25 | 372738 | F202 B-25/0,3 | 2CSF202592R3250 | | 0,220 | 1 |
| | | 40 | 372639 | F202 B-40/0,3 | 2CSF202592R3400 | | 0,220 | 1 |
| | | 63 | 372530 | F202 B-63/0,3 | 2CSF202592R3630 | | 0,220 | 1 |
| 4 | 30 | 25 | 348139 | F204 B-25/0,03 | 2CSF204592R1250 | | 0,380 | 1 |
| | | 40 | 358336 | F204 B-40/0,03 | 2CSF204592R1400 | | 0,380 | 1 |
| | | 63 | 348030 | F204 B-63/0,03 | 2CSF204592R1630 | | 0,380 | 1 |
| | 300 | 25 | 347934 | F204 B-25/0,3 | 2CSF204592R3250 | | 0,380 | 1 |
| | | 40 | 358138 | F204 B-40/0,3 | 2CSF204592R3400 | | 0,380 | 1 |
| | | 63 | 347835 | F204 B-63/0,3 | 2CSF204592R3630 | | 0,380 | 1 |
| | 300 S | 40 | 347736 | F204 B S-40/0,3 | 2CSF204892R3400 | | 0,380 | 1 |
| | | 63 | 357933 | F204 B S-63/0,3 | 2CSF204892R3630 | | 0,380 | 1 |
| | 500 | 40 | 776932 | F204 B-40/0,5 | 2CSF204592R4400 | | 0,380 | 1 |
| | | 63 | 347637 | F204 B-63/0,5 | 2CSF204592R4630 | | 0,380 | 1 |
| | 500 S | 40 | 357834 | F204 B S-40/0,5 | 2CSF204892R4400 | | 0,380 | 1 |
| | | 63 | 347538 | F204 B S-63/0,5 | 2CSF204892R4630 | | 0,380 | 1 |

### F200 B Type high ratings

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 80 | 988601 | F204B-80/0,03 | 2CSF204501R1800 | | 0,500 | 1 |
| | | 125 | 988700 | F204B-125/0,03L[1] | 2CSF204523R1950 | | 0,500 | 1 |
| | 300 | 80 | 989103 | F204B-80/0,3 | 2CSF204501R3800 | | 0,500 | 1 |
| | | 125 | 989202 | F204B-125/0,3L[1] | 2CSF204523R3950 | | 0,500 | 1 |
| | 300 S | 125 | 989509 | F204BS-125/0,3L[1] | 2CSF204823R3950 | | 0,500 | 1 |
| | 500 | 125 | 730439 | F204B-125/0,5L[1] | 2CSF204523R4950 | | 0,500 | 1 |
| | 500 S | 125 | 731238 | F204BS-125/0,5L[1] | 2CSF204823R4950 | | 0,500 | 1 |

[1] Left-sided neutral pole

**Where to find more:**
Coordination tables for F 200 RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide Marks and Approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2 - 4/40
Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCCBs
## F-ATI and F-ARI





F-ATI and F-ARI Test are RCCBs equipped with automatic test features. RCCBs are supposed to be checked every six months in order to make sure that the contacts are working properly and the device is able to trip in case of a leakage to earth. This swift operation affects the operational continuity of the circuits downstream and required a lot of man power. F-ATI and F-ARI test ranges push the periodic test to another level as this is run automatically and with no interruption at all of the service. Therefore, also the operations carried out by maintenance personnel are reduced to the very minimum.
In addition to the automatic test, F-ARI Range features a reclosing unit that tries to reclose the RCCB as it trips. The reclosing operations are based on an insulation check to make sure that no permanent fault is present. Moreover, the results coming from each and every circuit are collected at once thanks to ARBus interface.

- Saving: maintenance costs are cut down as the device runs automatically the test monthly in accordance with EN 61008 provisions.
- Uptime: while running the test, no disconnection of the supply occurs like in the traditional RCCB units.
- Time saving: a full array of maximum 99 devices can be commanded and read by remote by the means of the ARBus interface.
- Easy installation: the unit is factory fitted and it needs no coupling
- Quality: F-ATI Test range is approved by VDE while F-ARI Test is approved by IMQ CSV.
- Smart: complete monitoring over the application thanks to a fault check system and a programmable aux contact
- Reliability: Suitable for demanding environments up to 60 °C
- High immunity: RCCBs Type A APR offer the adequate solution according to the type of loads to be protected , the level of safety and the continuity of service. (inserire forme d’onda ammesse per APR)

# RCCBs
## F-ATI and F-ARI technical features



| | | F-ATI Test | F-ARI Test |
|---|---|---|---|
| Reference Standards | EN61008-1 , VDE V 0664-120 (annex M) | EN61008-1 , CPT054, EN50557 | |
| Electrical features | Distribution system | TN, TT, IT | TN, TT |
| | Rated voltage Ue | 230-400 V a.c. -15% ÷ 10% | |
| | Rated frequency | 50 Hz | |
| | Rated current In | 25, 40, 63 A | |
| | Rated sensitivity IΔn | 30, 300 mA | |
| | Type | A AP-R | |
| | Poles | 2P, 4P | |
| | Insulation voltage Ui | 500 V d.c. | |
| | Minimum test voltage Utmin | 195 V a.c. | |
| | Rated non-operating resistance between live parts and earth Rdo | 8 kΩ (30 mA), 2,5 kΩ(300 mA) | |
| | Rated operating resistance between live parts and earth Rd | 16 kΩ (30 mA), 5 kΩ (300 mA) | |
| | Rated conditional short-circuit Inc | 10 kA (SCPD – gL fuse 63 A for In 25, 40 A; gL fuse 80 A for In 63 A) | |
| | Dielectric test voltage at ind. freq. for 1 min | 2,5 kV | |
| | Rated impulse withstand voltage (1,2/50) Uimp | 4 kV | |
| | Power consumption | 3.5, 6, 12 W | 2.2, 5.4, 6.2 W |
| | Power consumption during operation | 41 VA | |
| Other features | Test cycle time | < 7 s | |
| | Reclosing time | < 10 s (6 s check, 3 s reclosing) | |
| Mechanical features | Protection degree | IP20 (terminals), IP40 (housing) | |
| | Contact position indicator CPI | yes | |
| | Mechanical life | 4000 | |
| Installation | Tightening torque | 2 Nm | |
| | Ambient temperature | -25…+60 °C | |
| | Storage temperature | -40…+70 °C | |
| Auxiliary contact | Type | NO-NC-NO+pulse (100 ms) | |
| | Operating features | 5 ÷ 230 V a.c./d.c. Imax 100 mA | |
| | Terminals cross section | 2,5 $mm^2$ | |
| | Tightening torque | 0,4 Nm | |
| Dimensions | DIN modules | 5, 7 | |
| | Weight | 550, 900 g | |

| | | ARBus |
|---|---|---|
| Electrical features | Rated voltage Ue | 230 V a.c. -15% ÷ 10% |
| | Rated frequency | 50 Hz |
| | Insulation voltage Ui | 500 V d.c. |
| | Rated conditional short-circuit Inc | 10 kA (SCPD – gL fuse 63 A for In 25, 40 A; gL fuse 80 A for In 63 A) |
| | Rated impulse withstand voltage (1,2/50) Uimp | 4 kV |
| | Power consumption | 1 W |
| Installation | Terminals | 2,5 mm2 |
| | Tightening torque | 0,4 Nm |
| | Ambient temperature | -25…+60 °C |
| | Storage temperature | -40…+70 °C |
| Communication | Protocol | Modbus RS485 |
| | Baud rate | 38400 |
| | Addresses | 1…99 |
| | Tightening torque | 0,4 Nm |
| Dimensions and weight | DIN modules | 1 |
| | Weight | 180 gr |

# RCCBs
# F-ATI and F-ARI





F-ATI 2 Test



F-ARI 4 Test

## F-ATI

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1P+N | 30 | 25 | 288855 | F-ATI2Test A-25/0.03 | 2CSF302130R1250 | | 0.550 | 5 |
| | | 40 | 288954 | F-ATI2Test A-40/0.03 | 2CSF302130R1400 | | 0.550 | 5 |
| | | 63 | 289050 | F-ATI2Test A-63/0.03 | 2CSF302130R1630 | | 0.550 | 5 |
| 3P+N | 30 | 25 | 289159 | F-ATI4Test A-25/0.03 | 2CSF304130R1250 | | 0.900 | 7 |
| | | 40 | 289258 | F-ATI4Test A-40/0.03 | 2CSF304130R1400 | | 0.900 | 7 |
| | | 63 | 289357 | F-ATI4Test A-63/0.03 | 2CSF304130R1630 | | 0.900 | 7 |
| | 300 | 25 | 289456 | F-ATI4Test A-25/0.3 | 2CSF304130R3250 | | 0.900 | 7 |
| | | 40 | 289555 | F-ATI4Test A-40/0.3 | 2CSF304130R3400 | | 0.900 | 7 |
| | | 63 | 289654 | F-ATI4Test A-63/0.3 | 2CSF304130R3630 | | 0.900 | 7 |

## F-ARI Test

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1P+N | 30 | 25 | 289753 | F-ARI2Test A-25/0.03 | 2CSF302131R1250 | | 0.550 | 5 |
| | | 40 | 289852 | F-ARI2Test A-40/0.03 | 2CSF302131R1400 | | 0.550 | 5 |
| | | 63 | 293453 | F-ARI2Test A-63/0.03 | 2CSF302131R1630 | | 0.550 | 5 |
| 3P+N | 30 | 25 | 289951 | F-ARI4Test A-25/0.03 | 2CSF304131R1250 | | 0.900 | 7 |
| | | 40 | 290056 | F-ARI4Test A-40/0.03 | 2CSF304131R1400 | | 0.900 | 7 |
| | | 63 | 290155 | F-ARI4Test A-63/0.03 | 2CSF304131R1630 | | 0.900 | 7 |
| | 300 | 25 | 290254 | F-ARI4Test A-25/0.3 | 2CSF304131R3250 | | 0.900 | 7 |
| | | 40 | 290353 | F-ARI4Test A-40/0.3 | 2CSF304131R3400 | | 0.900 | 7 |
| | | 63 | 290452 | F-ARI4Test A-63/0.3 | 2CSF304131R3630 | | 0.900 | 7 |



ARBus

## Gamma ARBus

| | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| ARBus | 293354 | | 2CSF300130R1989 | | 0.180 | 1 |

# RCD-blocks
## DDA 200 technical features




3

**DDA 200**

| | | |
|---|---|---|
| Standards | | |
| Operating characteristic: type | | |
| Rated current In | | [A] |
| Poles | | |
| Rated voltage Ue | 2P | [V] |
| | 3P | |
| | 4P | |
| Insulation voltage Ui | | [V] |
| Operating voltage of circuit test Ut | 2P | [V] |
| | 3P | |
| | 4P | |
| Rated frequency | | Hz |
| Rated breaking capacity according to | IEC EN 61009 | [A] |
| Rated breaking capacity according to | IEC EN 60947-2 | [A] |
| Rated residual breaking capacity I∆m | | [kA] |
| Rated inpulse withstand capacity (1,2/50) Uimp | | [kV] |
| Dielectric test voltage at ind. freq. for 1 min. | | [kV] |
| Surge current resistance (wave 8/20) | | [A] |
| Rated sensitivity I∆n | | [A] |
| Toggle | | |
| Electrical life | | |
| Mechanical life | | |
| Protection degree | housing | |
| | terminals | |
| Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | [°C/RH] |
| Ambient temperature (with daily average ≤ +35 °C) | | [°C] |
| Storage temperature | | [°C] |
| Terminal type | 2P | |
| | 3P/4P In=25 and 40 A | |
| | 3P/4P In=63 A | |
| Terminal size | 2P | [mm²] |
| | 3P/4P In=25 and 40 A | [mm²] |
| | 3P/4P In=63 A | [mm²] |
| Tightening torque | 2P | [Nm] |
| | 3P/4P In=25 and 40 A | [Nm] |
| | 3P/4P In=63 A | [Nm] |
| Mounting | | |
| Dimensions | 2P | [mm] |
| H x P x L | 3P/4P In=25 and 40 A | [mm] |
| | 3P/4P In=63 A | [mm] |
| Weight | 2P | [g] |
| | 3P/4P In=25 and 40 A | [g] |
| | 3P/4P In=63 A | [g] |
| Combinable with | S 200 L | |
| | S 200 | |
| | S 200 M | |
| | S 200 P | |

① All RCD-blocks DDA 200 with rated current 63 A are provided with two additional terminals for remote tripping.
② DDA200 A AE is provided with two additional terminals for remote release in positive safety.
A remote control circuit should be connected to those terminals where circuit breakers or push buttons with normally closed contacts should be inserted.

| | DDA 200 AC | DDA 200 A | DDA 200 A AP-R | DDA 200 A AE | DDA 200 A S | DDA 200 B |
|---|---|---|---|---|---|---|
| | IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1 | | | | | IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1, IEC EN 62423 |
| | AC | A | A | A | A | B |
| | 25, 40, 63 ① | | 25, 40, 63 ① | 63 ② | 63 ① | 25-40-63 |
| | 2P, 3P, 4P | | | | | 2P, 3P, 4P |
| | 230 (400 for special execution @400 V) | | | 230 | 230 | 230 |
| | 230/400 | | | 400 | 400 | 400 |
| | 230/400 | | | 230/400 | 230/400 | 230/400 |
| | 500 | | | | | |
| | 110-254 for special execution @110V; 195-254 (170-254 for 30 mA; 400 for special execution @400 V) | | | 184-264 | 195-254 (170-254 for 30 mA) | 195-254 (170-254 for 30 mA) |
| | 195-440 (300-440 for 30 mA; 110-254 for special execution @110 V) | | | 310-440 | 195-440 (300-440 for 30 mA) | 310-440 (300-440 for 30 mA) |
| | 195-440 (300-440 for 30 mA; 110-254 for special execution @110 V) | | | 184-264 | 195-440 (300-440 for 30 mA) | 195-254 (300-440 for 30 mA) |
| | 50…60 | | | | | |
| | same of the coupled MCB | | | | | |
| | same of the coupled MCB | | | | | |
| | same of the coupled MCB | | | | | |
| | 4 | | | | | |
| | 2,5 | | | | | |
| | 250 | | 3000 | 250 | 5000 | 3000 (5000 for selective types) |
| | 0.01-0.03-0.1-0.3-0.5-1 | | 0.03 | 0.03-0.3-0.5-1 | 0.1-0.3-0.5-1 | 0.03 - 0.3 - 0.5 |
| | blue | | | | | |
| | 10000 | | | | | |
| | 20000 | | | | | |
| | IP4X | | | | | |
| | IP2X | | | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | | | |
| | -25...+55 | | | | | |
| | -40…+70 | | | | | |
| | bi-directional cylinder-lift | | | | | |
| | cage type | | | | | - |
| | bi-directional cylinder-lift | | | | | |
| | (rigid or flexible) up to 25 | | | | | |
| | (rigid or flexible) up to 16 | | | | | - |
| | (rigid or flexible) up to 25 | | | | | |
| | 2.8 | | | | | |
| | 1.2 | | | | | - |
| | 2.8 | | | | | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | | | | | |
| | 85 x 69 x 35 | | | | | 85 x 69 x 70 |
| | 85 x 69 x 35 | | | | | 85 x 69 x 70 |
| | 85 x 69 x 70 | | | | | 85 x 69 x 70 |
| | 175 | | | | | 350 |
| | 175 | | | | | 375 |
| | 325 | | | | | 395 |
| | yes | | | | | |
| | yes | | | | | |
| | yes | | | | | |
| | yes | | | | | |

# RCD-blocks
# DDA 200 series AC ∿ type




DDA 202




DDA 203

## DDA 200 AC type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 25 | 791003 | DDA202 AC-25/0.01 | 2CSB202001R0250 | | 0.180 | 1 |
| | 30 | 25 | 791102 | DDA202 AC-25/0.03 | 2CSB202001R1250 | | 0.180 | 1 |
| | | 40 | 791201 | DDA202 AC-40/0.03 | 2CSB202001R1400 | | 0.180 | 1 |
| | | 63 ② | 791300 | DDA202 AC-63/0.03 | 2CSB202001R1630 | | 0.180 | 1 |
| | 100 | 25 | 791409 | DDA202 AC-25/0.1 | 2CSB202001R2250 | | 0.180 | 1 |
| | | 40 | 791508 | DDA202 AC-40/0.1 | 2CSB202001R2400 | | 0.180 | 1 |
| | | 63 ② | 791607 | DDA202 AC-63/0.1 | 2CSB202001R2630 | | 0.180 | 1 |
| | 300 | 25 | 791706 | DDA202 AC-25/0.3 | 2CSB202001R3250 | | 0.180 | 1 |
| | | 40 | 791805 | DDA202 AC-40/0.3 | 2CSB202001R3400 | | 0.180 | 1 |
| | | 63 ② | 791904 | DDA202 AC-63/0.3 | 2CSB202001R3630 | | 0.180 | 1 |
| | 500 | 25 | 792000 | DDA202 AC-25/0.5 | 2CSB202001R4250 | | 0.180 | 1 |
| | | 40 | 792109 | DDA202 AC-40/0.5 | 2CSB202001R4400 | | 0.180 | 1 |
| | | 63 ② | 792208 | DDA202 AC-63/0.5 | 2CSB202001R4630 | | 0.180 | 1 |
| | 1000 | 25 | 808305 | DDA202 AC-25/1 | 2CSB202001R5250 | | 0.180 | 1 |
| | | 40 | 808404 | DDA202 AC-40/1 | 2CSB202001R5400 | | 0.180 | 1 |
| | | 63 ② | 792307 | DDA202 AC-63/1 | 2CSB202001R5630 | | 0.180 | 1 |
| | 2000 | 63 | 792406 | DDA202 AC-63/2 | 2CSB202001R6630 | | 0.180 | 1 |

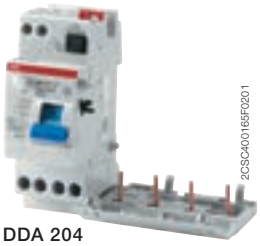
| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 25 | 792505 | DDA203 AC-25/0.03 | 2CSB203001R1250 | | 0.220 | 1 |
| | | 40 | 792604 | DDA203 AC-40/0.03 | 2CSB203001R1400 | | 0.220 | 1 |
| | | 63 ② | 792703 | DDA203 AC-63/0.03 | 2CSB203001R1630 | | 0.260 | 1 |
| | 100 | 25 | 792802 | DDA203 AC-25/0.1 | 2CSB203001R2250 | | 0.220 | 1 |
| | | 40 | 792901 | DDA203 AC-40/0.1 | 2CSB203001R2400 | | 0.220 | 1 |
| | | 63 ② | 793007 | DDA203 AC-63/0.1 | 2CSB203001R2630 | | 0.260 | 1 |
| | 300 | 25 | 793106 | DDA203 AC-25/0.3 | 2CSB203001R3250 | | 0.220 | 1 |
| | | 40 | 793205 | DDA203 AC-40/0.3 | 2CSB203001R3400 | | 0.220 | 1 |
| | | 63 ② | 793304 | DDA203 AC-63/0.3 | 2CSB203001R3630 | | 0.260 | 1 |
| | 500 | 25 | 793403 | DDA203 AC-25/0.5 | 2CSB203001R4250 | | 0.220 | 1 |
| | | 40 | 793502 | DDA203 AC-40/0.5 | 2CSB203001R4400 | | 0.220 | 1 |
| | | 63 ② | 793601 | DDA203 AC-63/0.5 | 2CSB203001R4630 | | 0.260 | 1 |
| | 1000 | 25 | 808503 | DDA203 AC-25/1 | 2CSB203001R5250 | | 0.220 | 1 |
| | | 40 | 808602 | DDA203 AC-40/1 | 2CSB203001R5400 | | 0.220 | 1 |
| | | 63 ①② | 793700 | DDA203 AC-63/1 | 2CSB203001R5630 | | 0.260 | 1 |
| | 2000 | 63 | 793809 | DDA203 AC-63/2 | 2CSB203001R6630 | | 0.260 | 1 |

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25




DDA 204

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 793908 | DDA204 AC-25/0.03 | 2CSB204001R1250 | | 0.260 | 1 |
| | | 40 | 794004 | DDA204 AC-40/0.03 | 2CSB204001R1400 | | 0.260 | 1 |
| | | 63 ①② | 794103 | DDA204 AC-63/0.03 | 2CSB204001R1630 | | 0.305 | 1 |
| | 100 | 25 | 794202 | DDA204 AC-25/0.1 | 2CSB204001R2250 | | 0.260 | 1 |
| | | 40 | 794301 | DDA204 AC-40/0.1 | 2CSB204001R2400 | | 0.260 | 1 |
| | | 63 ② | 794400 | DDA204 AC-63/0.1 | 2CSB204001R2630 | | 0.305 | 1 |
| | 300 | 25 | 794509 | DDA204 AC-25/0.3 | 2CSB204001R3250 | | 0.260 | 1 |
| | | 40 | 794608 | DDA204 AC-40/0.3 | 2CSB204001R3400 | | 0.260 | 1 |
| | | 63 ② | 794707 | DDA204 AC-63/0.3 | 2CSB204001R3630 | | 0.305 | 1 |
| | 500 | 25 | 794806 | DDA204 AC-25/0.5 | 2CSB204001R4250 | | 0.260 | 1 |
| | | 40 | 794905 | DDA204 AC-40/0.5 | 2CSB204001R4400 | | 0.260 | 1 |
| | | 63 ② | 795001 | DDA204 AC-63/0.5 | 2CSB204001R4630 | | 0.305 | 1 |
| | 1000 | 25 | 808701 | DDA204 AC-25/1 | 2CSB204001R5250 | | 0.260 | 1 |
| | | 40 | 808800 | DDA204 AC-40/1 | 2CSB204001R5400 | | 0.260 | 1 |
| | | 63 ② | 795100 | DDA204 AC-63/1 | 2CSB204001R5630 | | 0.305 | 1 |
| | 2000 | 63 | 795209 | DDA204 AC-63/2 | 2CSB204001R6630 | | 0.305 | 1 |

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping

# RCD-blocks
## DDA 200 series A type






DDA 202




DDA 203

### DDA 200 A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).
**Application: residential, commercial, industrial.**
**Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 25 | 795308 | DDA202 A-25/0.01 | 2CSB202101R0250 | | 0.180 | 1 |
| | 30 | 25 | 795407 | DDA202 A-25/0.03 | 2CSB202101R1250 | | 0.180 | 1 |
| | | 40 | 795506 | DDA202 A-40/0.03 | 2CSB202101R1400 | | 0.180 | 1 |
| | | 63 ② | 795605 | DDA202 A-63/0.03 | 2CSB202101R1630 | | 0.180 | 1 |
| | 100 | 25 | 795704 | DDA202 A-25/0.1 | 2CSB202101R2250 | | 0.180 | 1 |
| | | 40 | 795803 | DDA202 A-40/0.1 | 2CSB202101R2400 | | 0.180 | 1 |
| | | 63 ② | 795902 | DDA202 A-63/0.1 | 2CSB202101R2630 | | 0.180 | 1 |
| | 300 | 25 | 796008 | DDA202 A-25/0.3 | 2CSB202101R3250 | | 0.180 | 1 |
| | | 40 | 796107 | DDA202 A-40/0.3 | 2CSB202101R3400 | | 0.180 | 1 |
| | | 63 ② | 796206 | DDA202 A-63/0.3 | 2CSB202101R3630 | | 0.180 | 1 |
| | 500 | 25 | 796305 | DDA202 A-25/0.5 | 2CSB202101R4250 | | 0.180 | 1 |
| | | 40 | 796404 | DDA202 A-40/0.5 | 2CSB202101R4400 | | 0.180 | 1 |
| | | 63 ② | 796503 | DDA202 A-63/0.5 | 2CSB202101R4630 | | 0.180 | 1 |
| | 1000 | 25 | 808909 | DDA202 A-25/1 | 2CSB202101R5250 | | 0.180 | 1 |
| | | 40 | 809005 | DDA202 A-40/1 | 2CSB202101R5400 | | 0.180 | 1 |
| | | 63 ② | 796602 | DDA202 A-63/1 | 2CSB202101R5630 | | 0.180 | 1 |

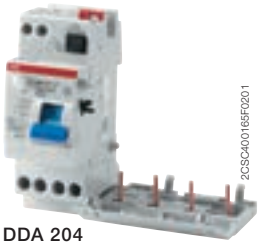
| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 25 | 796701 | DDA203 A-25/0.03 | 2CSB203101R1250 | | 0.220 | 1 |
| | | 40 ① | 796800 | DDA203 A-40/0.03 | 2CSB203101R1400 | | 0.220 | 1 |
| | | 63 ①② | 796909 | DDA203 A-63/0.03 | 2CSB203101R1630 | | 0.260 | 1 |
| | 100 | 25 | 797005 | DDA203 A-25/0.1 | 2CSB203101R2250 | | 0.220 | 1 |
| | | 40 | 797104 | DDA203 A-40/0.1 | 2CSB203101R2400 | | 0.220 | 1 |
| | | 63 ② | 797203 | DDA203 A-63/0.1 | 2CSB203101R2630 | | 0.260 | 1 |
| | 300 | 25 | 797302 | DDA203 A-25/0.3 | 2CSB203101R3250 | | 0.220 | 1 |
| | | 40 | 797401 | DDA203 A-40/0.3 | 2CSB203101R3400 | | 0.220 | 1 |
| | | 63 ② | 797500 | DDA203 A-63/0.3 | 2CSB203101R3630 | | 0.260 | 1 |
| | 500 | 25 | 797609 | DDA203 A-25/0.5 | 2CSB203101R4250 | | 0.220 | 1 |
| | | 40 | 797708 | DDA203 A-40/0.5 | 2CSB203101R4400 | | 0.220 | 1 |
| | | 63 ② | 797807 | DDA203 A-63/0.5 | 2CSB203101R4630 | | 0.260 | 1 |
| | 1000 | 25 | 809104 | DDA203 A-25/1 | 2CSB203101R5250 | | 0.220 | 1 |
| | | 40 | 809203 | DDA203 A-40/1 | 2CSB203101R5400 | | 0.220 | 1 |
| | | 63 ② | 797906 | DDA203 A-63/1 | 2CSB203101R5630 | | 0.260 | 1 |

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25




DDA 204

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 798002 | DDA204 A-25/0.03 | 2CSB204101R1250 | | 0.260 | 1 |
| | | 40 | 798101 | DDA204 A-40/0.03 | 2CSB204101R1400 | | 0.260 | 1 |
| | | 63 ①② | 798200 | DDA204 A-63/0.03 | 2CSB204101R1630 | | 0.305 | 1 |
| | 100 | 25 | 798309 | DDA204 A-25/0.1 | 2CSB204101R2250 | | 0.260 | 1 |
| | | 40 | 798408 | DDA204 A-40/0.1 | 2CSB204101R2400 | | 0.260 | 1 |
| | | 63 ② | 798507 | DDA204 A-63/0.1 | 2CSB204101R2630 | | 0.305 | 1 |
| | 300 | 25 | 798606 | DDA204 A-25/0.3 | 2CSB204101R3250 | | 0.260 | 1 |
| | | 40 | 798705 | DDA204 A-40/0.3 | 2CSB204101R3400 | | 0.260 | 1 |
| | | 63 ② | 798804 | DDA204 A-63/0.3 | 2CSB204101R3630 | | 0.305 | 1 |
| | 500 | 25 | 798903 | DDA204 A-25/0.5 | 2CSB204101R4250 | | 0.260 | 1 |
| | | 40 | 799009 | DDA204 A-40/0.5 | 2CSB204101R4400 | | 0.260 | 1 |
| | | 63 ② | 799108 | DDA204 A-63/0.5 | 2CSB204101R4630 | | 0.305 | 1 |
| | 1000 | 25 | 809302 | DDA204 A-25/1 | 2CSB204101R5250 | | 0.260 | 1 |
| | | 40 | 809401 | DDA204 A-40/1 | 2CSB204101R5400 | | 0.260 | 1 |
| | | 63 ② | 799207 | DDA204 A-63/1 | 2CSB204101R5630 | | 0.305 | 1 |

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping

# RCD-blocks
# DDA 200 special version 110 V and 400 V





DDA 202



DDA 203



DDA 204

## DDA 200 special version 110 V and 400 V

Function: special version of RCD-blocks to assembly on site with MCBs S 200 series. Special version are available with protection against the effects of sinusoidal alternating and/or direct pulsating earth fault currents, protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).
DDA200 110 V is a particular RCD-block with voltage range for test button Ut = 110-254 V. RCD- blocks work for naval applications where the IT system is typically used and the voltage between the phase and the neutral conductor is 115 - 125 V. DDA200 110 V (Ut = 110-254 V) are suitable for naval applications.
Special version is also available for 400 V in the two poles version working in two-phase industrial systems where voltage between phases is 400 V.
**Applications: naval, industrial.**
**Standards: IEC 61009-1 Ann. G; IEC 61009-2-1**

## 110 V version

### AC type

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 ① | 929901 | DDA 204 AC-63/0.03 110V | 2CSB204099R1630 | | 0.350 | 1 |

### A type

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 079033 | DDA202 A-25/0.03 110V | 2CSB202199R1250 | | 0.180 | 1 |
| | | 40 | 078937 | DDA202 A-40/0.03 110V | 2CSB202199R1400 | | 0.180 | 1 |
| | | 63 ① | 078838 | DDA202 A-63/0.03 110V | 2CSB202199R1630 | | 0.180 | 1 |
| 3 | 30 | 40 | 811701 | DDA 203 A-40/0.03 110V | 2CSB203199R1400 | | 0.350 | 1 |
| | | 63 ① | 811800 | DDA 203 A-63/0.03 110V | 2CSB203199R1630 | | 0.350 | 1 |
| 4 | 30 | 63 ① | 812104 | DDA 204 A-63/0.03 110V | 2CSB204199R1630 | | 0.350 | 1 |

## 400 V version

### A type

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 ① | 954934 | DDA 202 A-63/0.03 400V | 2CSB202192R1630 | | 0.200 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals
p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCD-blocks
## DDA 200 series A type, AP-R (high immunity)



DDA 202



DDA 203



DDA 204

### DDA 200 AP-R, A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1**

**Surge current resistance (wave 8/20)=3000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 801108 | DDA202 A-25/0.03 AP-R | 2CSB202401R1250 | | 0.180 | 1 |
| | | 40 | 801207 | DDA202 A-40/0.03 AP-R | 2CSB202401R1400 | | 0.180 | 1 |
| | | 63 ① | 801306 | DDA202 A-63/0.03 AP-R | 2CSB202401R1630 | | 0.180 | 1 |
| | 300 | 63 | 961932 | DDA202 A-63/0,3 AP-R | 2CSB202401R3630 | | 0,260 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 25 | 811008 | DDA203 A-25/0.03 AP-R | 2CSB203401R1250 | | 0.220 | 1 |
| | | 40 | 811107 | DDA203 A-40/0.03 AP-R | 2CSB203401R1400 | | 0.220 | 1 |
| | | 63 ① | 811206 | DDA203 A-63/0.03 AP-R | 2CSB203401R1630 | | 0.260 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 801405 | DDA204 A-25/0.03 AP-R | 2CSB204401R1250 | | 0.260 | 1 |
| | | 40 | 801504 | DDA204 A-40/0.03 AP-R | 2CSB204401R1400 | | 0.260 | 1 |
| | | 63 ① | 801603 | DDA204 A-63/0.03 AP-R | 2CSB204401R1630 | | 0.305 | 1 |
| | 300 | 63 | 961734 | DDA204 A-63/0,3 AP-R | 2CSB204401R3630 | | 0,305 | 1 |

① provided with additional terminals for remote tripping

# RCD-blocks
## DDA 200 series A type, AE (for emergency stop)





DDA 202



DDA 203



DDA 204

### DDA 200 AE, A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with In=30 mA).
The RCD-block is provided with two additional terminals to be used in emergency circuits for remote opening in positive safety. A remote control circuit should be connected to those terminals where NC push buttons should be inserted in series.

**ATTENTION!**

It's allowed to use multiple NC buttons to control one DDA200 AE but it's not permitted to use one button in a control circuit for more RCD-blocks DDA200 AE. DDA200 AE must be supplied by the top side.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 | 801702 | DDA202 A-63/0.03 AE | 2CSB202701R1630 | | 0.180 | 1 |
| | 300 | 63 | 801801 | DDA202 A-63/0.3 AE | 2CSB202701R3630 | | 0.180 | 1 |
| | 500 | 63 | 801900 | DDA202 A-63/0.5 AE | 2CSB202701R4630 | | 0.180 | 1 |
| | 1000 | 63 | 802006 | DDA202 A-63/1 AE | 2CSB202701R5630 | | 0.180 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 63 | 802105 | DDA203 A-63/0.03 AE | 2CSB203701R1630 | | 0.260 | 1 |
| | 300 | 63 | 802204 | DDA203 A-63/0.3 AE | 2CSB203701R3630 | | 0.260 | 1 |
| | 500 | 63 | 802303 | DDA203 A-63/0.5 AE | 2CSB203701R4630 | | 0.260 | 1 |
| | 1000 | 63 | 802402 | DDA203 A-63/1 AE | 2CSB203701R5630 | | 0.260 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 802501 | DDA204 A-63/0.03 AE | 2CSB204701R1630 | | 0.305 | 1 |
| | 300 | 63 | 802600 | DDA204 A-63/0.3 AE | 2CSB204701R3630 | | 0.305 | 1 |
| | 500 | 63 | 802709 | DDA204 A-63/0.5 AE | 2CSB204701R4630 | | 0.305 | 1 |
| | 1000 | 63 | 802808 | DDA204 A-63/1 AE | 2CSB204701R5630 | | 0.305 | 1 |

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Wiring diagrams for DDA 200 AE series p.15/5
Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCD-blocks
## DDA 200 series A type, selective



DDA 202



DDA 203



DDA 204

### DDA 200 A selective type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1**

**Surge current resistance (wave 8/20)=5000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 100 | 63 | 799306 | DDA202 A S-63/0.1 | 2CSB202201R2630 | | 0.180 | 1 |
| | 300 | 63 | 799405 | DDA202 A S-63/0.3 | 2CSB202201R3630 | | 0.180 | 1 |
| | 500 | 63 | 799504 | DDA202 A S-63/0.5 | 2CSB202201R4630 | | 0.180 | 1 |
| | 1000 | 63 | 799603 | DDA202 A S-63/1 | 2CSB202201R5630 | | 0.180 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 100 | 63 | 799702 | DDA203 A S-63/0.1 | 2CSB203201R2630 | | 0.260 | 1 |
| | 300 | 63 | 799801 | DDA203 A S-63/0.3 | 2CSB203201R3630 | | 0.260 | 1 |
| | 500 | 63 | 799900 | DDA203 A S-63/0.5 | 2CSB203201R4630 | | 0.260 | 1 |
| | 1000 | 63 | 800002 | DDA203 A S-63/1 | 2CSB203201R5630 | | 0.260 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 100 | 63 | 800101 | DDA204 A S-63/0.1 | 2CSB204201R2630 | | 0.305 | 1 |
| | 300 | 63 | 800200 | DDA204 A S-63/0.3 | 2CSB204201R3630 | | 0.305 | 1 |
| | 500 | 63 | 800309 | DDA204 A S-63/0.5 | 2CSB204201R4630 | | 0.305 | 1 |
| | 1000 | 63 | 800408 | DDA204 A S-63/1 | 2CSB204201R5630 | | 0.305 | 1 |

Attention: All DDA 200 A S are provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20
Busbar systems p.4/25

# RCD-blocks
## DDA 200 series B type




DDA 202






DDA 203




DDA 204

### DDA 200 type B for continuous type fault currents

RCD-blocks type B are also sensitive to continuous or mainly continuous (continuous with weak ondulation) current pulsating earth fault currents. They are also sensitive to alternate sinusoidal and direct pulsating earth fault currents as with type A circuit breakers.
They satisfy the requirements of type A devices and thus the requirements for type AC devices which can be considered an extension. For this reason the differential blocks type B are sometimes referred as “universal type”, as sensitive to “all” kind of residual current shape.
DDA 200 type B can be coupled with all the S 200 series MCBs.
They are used for protection in installations with electronic equipments according to EN 50178.
**Applications: tertiary and industrial.**
**Standards: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1; IEC 62423 ed.2**
**Surge current resistance (8/20 wave): 3000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 748021 | DDA202 B APR-25/0,03 | 2CSB202592R1250 | | 0.350 | 1 |
| | | 40 | 515128 | DDA202 B APR-40/0,03 | 2CSB202592R1400 | | 0.350 | 1 |
| | | 63 | 610922 | DDA202 B APR-63/0,03 | 2CSB202592R1630 | | 0.350 | 1 |
| | 300 | 25 | 733324 | DDA202 B APR-25/0,3 | 2CSB202592R3250 | | 0.350 | 1 |
| | | 63 | 732426 | DDA202 B APR-63/0,3 | 2CSB202592R3630 | | 0.350 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 63 | 733225 | DDA203 B APR-63/0,03 | 2CSB203592R1630 | | 0.375 | 1 |
| | 300 | 63 | 732327 | DDA203 B APR-63/0,3 | 2CSB203592R3630 | | 0.375 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 25 | 732228 | DDA204 B APR-25/0,03 | 2CSB204592R1250 | | 0.395 | 1 |
| | | 40 | 020325 | DDA204 B APR-40/0,03 | 2CSB204592R1400 | | 0.395 | 1 |
| | | 63 | 733027 | DDA204 B APR-63/0,03 | 2CSB204592R1630 | | 0.395 | 1 |
| | 300 | 25 | 732129 | DDA204 B APR-25/0,3 | 2CSB204592R3250 | | 0.395 | 1 |
| | | 63 | 732921 | DDA204 B APR-63/0,3 | 2CSB204592R3630 | | 0.395 | 1 |
| | 500 | 63 | 732020 | DDA204 B APR-63/0,5 | 2CSB204592R4630 | | 0.395 | 1 |

**Where to find more:**
Technical details for DDA 200:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals
p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20
Busbar systems p.4/25




DDA 203




DDA 204

## DDA 200 type B for selective continuous type fault currents

Function: protection against the effects of alternate sinusoidal, direct pulsating, continuous current and continuous current pulsating earth fault currents with an intentional trip delay that permits selectivity with instantaneous type devices placed downstream (for further information on selectivity, see Chapter 3 of Solutions for electrical distribution in buildings - technical details).

DDA 200 type B can be coupled with all the S 200 series MCBs.

They are used for protection in installations with electronic equipments according to EN 50178.

**Applications: tertiary and industrial.**

**Standards: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1; IEC 62423 ed.2**

**Surge current resistance (8/20 wave): 5000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 300 | 63 | 733126 | DDA203 B S-63/0,3 | 2CSB203892R3630 | | 0.375 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 300 | 63 | 732822 | DDA204 B S-63/0,3 | 2CSB204892R3630 | | 0.395 | 1 |

# RCBO DS201 and DS202C. The details make the difference
## A range designed to ensure efficiency and protection



Bi-directional cylindrical terminal ensure higher safety of connecting operations, making them easier.

Information on the device are laser printed to ensure readability over time.




The label carrier to clearly identify the protected circuit.

Each RCBO of the DS201-DS202C range is equipped with an RFid tag containing a unique serial number assigned to ABB according to the standard ISO/IEC FCD 15693-3 in order to authenticate the product.

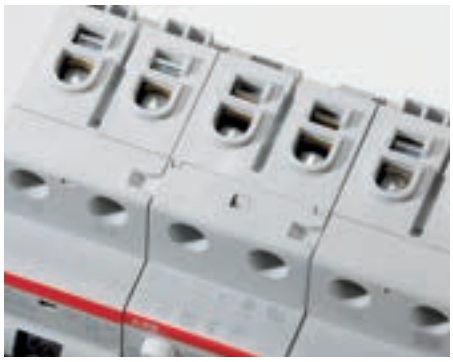
Test pushbutton to verify the correct functioning of the device



Any earth fault can be immediately identified through the blue indicator, that signals the differential tripping and which cannot be activated in case of manual operation on the toggle. This prevents any misinterpretations of the device and system status.




Contact position indicator (CPI): to always know the status of the contacts (red: closed contacts; green: open contacts).



The terminals available on DS201-DS202C make easier the supply operation in parallel with busbars as they are composed by two different seats, a front seat for 25 $mm^2$ cables and a back seat for 10 $mm^2$ busbars.




All the devices of the DS201 and DS202C series have been tested in a wide range of temperatures: from -25 °C (as indicated by the snowflake marked on the front side) up to +55°C.




Label carrier for clear and reliable identification.
With the practical label carrier fitted in the new circuit breakers you can give maximum visibility to the information relating to the protected loads.



All the quality ensured by the main international marks is clearly visible on the device even if installed in the switchboard.



Product description and EAN code laser printed on the lateral side of the device for an easier stock management.

# RCBOs
## DS201 technical features




**DS201 L**

3

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated current In | | A |
| | Rated sensitivity IΔn | | A |
| | Rated voltage Ue | | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Rated breaking capacity acc. to IEC/EN 61009 | ultimate Icn | A |
| | Rated breaking capacity acc. to IEC/EN 60947-2 | ultimate Icu | kA |
| | 1P+N @230 VAC | service Ics | kA |
| | Rated residual breaking capacity IΔm | | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Thermomagnetic release characteristic | B: 3 In ≤ Im ≤ 5 In | |
| | | C: 5 In ≤ Im ≤ 10 In | |
| | | K: 10 In ≤ Im ≤ 14 In | |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Flag indicators | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Reference temperature for setting of thermal element | | °C |
| | Ambient temperature (with daily average ≤ +35 °C) | | °C |
| | Storage temperature | | °C |
| Installation | Terminal type | top | |
| | | bottom | |
| | Terminal size top/bottom for cables | | $mm^2$ |
| | Terminal size top/bottom for busbar | | $mm^2$ |
| | Tightening torque top/bottom | | Nm |
| | Mounting | | |
| | Connection | | |
| Dimensions and weight | Dimensions (H x D x W) | | mm |
| | Weight | | g |
| Combination with auxiliary elements | Combinable with: | auxiliary contact | |
| | | signal contact | |
| | | shunt trip | |
| | | undervoltage release | |

| | DS201 L | | | DS201 | | | DS201 M | | | DS201 M 110V |
|---|---|---|---|---|---|---|---|---|---|---|
| | IEC/EN 61009-1; IEC/EN 61009-2-1 | | | | | | | | | IEC 61009-1; IEC 61009-2-1 |
| | AC | A | APR | AC | A | APR | AC | A | APR | A |
| | 1P+N | | | | | | | | | |
| | 6 ≤ In ≤ 32 | | | 1 ≤ In ≤ 40 | | | 4 ≤ In ≤ 40 | | | 6 ≤ In ≤ 40 |
| | 0.03-0.3 | 0.01-0.03-0.3 | 0.03 | 0.03-0.1-0.3-1 | 0.01-0.03-0.1-0.3 | 0.03-0.1-0.3 | 0.03-0.1-0.3 | 0.01-0.03-0.1-0.3 | 0.03-0.1-0.3 | 0.03 |
| | 230-240 | | | | | | | | | |
| | 500 | | | | | | | | | |
| | 254 | | | | | | | | | |
| | 110 | | | | | | | | | 110 |
| | 170 for IΔn = 30 mA | | | | | | | | | |
| | 50…60 | | | | | | | | | |
| | 4500 | | | 6000 | | | 10000 | | | 10000 |
| | 6 | | | 10 | | | 10 | | | 10 |
| | 4.5 | | | 6 | | | 7.5 | | | 7.5 |
| | 4.5 | | | 6 | | | 6 | | | 6 |
| | 4 | | | | | | | | | |
| | 2.5 | | | | | | | | | |
| | | | | ■ | ■ | | ■ | ■ | | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | | | | | ■ | | | ■ | | |
| | 250 (3000 for APR versions) | | | | | | | | | |
| | black sealable in ON-OFF position | | | | | | | | | |
| | differential trip indicator (blue) | | | | | | | | | |
| | contact position indicator (green/red) | | | | | | | | | |
| | 10000 | | | | | | | | | |
| | 20000 | | | | | | | | | |
| | IP4X | | | | | | | | | |
| | IP2X | | | | | | | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | | | | | | | |
| | 30 | | | | | | | | | |
| | -25…+55 | | | | | | | | | |
| | -40…+70 | | | | | | | | | |
| | failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) | | | | | | | | | |
| | failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) | | | | | | | | | |
| | 25/25 | | | | | | | | | |
| | 10/10 | | | | | | | | | |
| | 2.8 | | | | | | | | | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | | | | | | | | | |
| | from top and bottom | | | | | | | | | |
| | 85 x 69 x 35 | | | | | | | | | |
| | 239 | | | | | | | | | |
| | yes | | | | | | | | | |
| | yes | | | | | | | | | |
| | yes | | | | | | | | | |
| | yes | | | | | | | | | |

# RCBOs
# DS201 L series 4500 AC type, C characteristic




DS201 L

## DS201 L AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=4500 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 171201 | DS201 L C6 AC30 | 2CSR245040R1064 | | 0.240 | 5 |
| | | 10 | 171300 | DS201 L C10 AC30 | 2CSR245040R1104 | | 0.240 | 5 |
| | | 16 | 171409 | DS201 L C16 AC30 | 2CSR245040R1164 | | 0.240 | 5 |
| | | 20 | 171508 | DS201 L C20 AC30 | 2CSR245040R1204 | | 0.240 | 5 |
| | | 25 | 171607 | DS201 L C25 AC30 | 2CSR245040R1254 | | 0.240 | 5 |
| | | 32 | 171706 | DS201 L C32 AC30 | 2CSR245040R1324 | | 0.240 | 5 |
| | 300 | 6 | 171805 | DS201 L C6 AC300 | 2CSR245040R3064 | | 0.240 | 5 |
| | | 10 | 171904 | DS201 L C10 AC300 | 2CSR245040R3104 | | 0.240 | 5 |
| | | 16 | 172000 | DS201 L C16 AC300 | 2CSR245040R3164 | | 0.240 | 5 |
| | | 20 | 172109 | DS201 L C20 AC300 | 2CSR245040R3204 | | 0.240 | 5 |
| | | 25 | 172208 | DS201 L C25 AC300 | 2CSR245040R3254 | | 0.240 | 5 |
| | | 32 | 172307 | DS201 L C32 AC300 | 2CSR245040R3324 | | 0.240 | 5 |

**Where to find more:**
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# RCBOs
# DS201 L series 4500 A type, C characteristic



DS201 L

## DS201 L A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=4500 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 6 | 163404 | DS201 L C6 A10 | 2CSR245140R0064 | | 0.240 | 5 |
| | | 10 | 171003 | DS201 L C10 A10 | 2CSR245140R0104 | | 0.240 | 5 |
| | | 16 | 171102 | DS201 L C16 A10 | 2CSR245140R0164 | | 0.240 | 5 |
| | 30 | 6 | 172406 | DS201 L C6 A30 | 2CSR245140R1064 | | 0.240 | 5 |
| | | 10 | 172505 | DS201 L C10 A30 | 2CSR245140R1104 | | 0.240 | 5 |
| | | 16 | 172604 | DS201 L C16 A30 | 2CSR245140R1164 | | 0.240 | 5 |
| | | 20 | 172703 | DS201 L C20 A30 | 2CSR245140R1204 | | 0.240 | 5 |
| | | 25 | 173809 | DS201 L C25 A30 | 2CSR245140R1254 | | 0.240 | 5 |
| | | 32 | 173908 | DS201 L C32 A30 | 2CSR245140R1324 | | 0.240 | 5 |
| | 300 | 6 | 174004 | DS201 L C6 A300 | 2CSR245140R3064 | | 0.240 | 5 |
| | | 10 | 174103 | DS201 L C10 A300 | 2CSR245140R3104 | | 0.240 | 5 |
| | | 16 | 174202 | DS201 L C16 A300 | 2CSR245140R3164 | | 0.240 | 5 |
| | | 20 | 174301 | DS201 L C20 A300 | 2CSR245140R3204 | | 0.240 | 5 |
| | | 25 | 174707 | DS201 L C25 A300 | 2CSR245140R3254 | | 0.240 | 5 |
| | | 32 | 174806 | DS201 L C32 A300 | 2CSR245140R3324 | | 0.240 | 5 |

# RCBOs
# DS201 L series 4500 APR type, C characteristic




DS201 L

## DS201 L APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact (IΔn=30mA); protection and isolation of resistive and inductive loads.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=4500 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 174905 | DS201 L C6 APR30 | 2CSR245440R1064 | | 0.240 | 5 |
| | | 10 | 175001 | DS201 L C10 APR30 | 2CSR245440R1104 | | 0.240 | 5 |
| | | 16 | 175100 | DS201 L C16 APR30 | 2CSR245440R1164 | | 0.240 | 5 |
| | | 20 | 175209 | DS201 L C20 APR30 | 2CSR245440R1204 | | 0.240 | 5 |
| | | 25 | 175605 | DS201 L C25 APR30 | 2CSR245440R1254 | | 0.240 | 5 |
| | | 32 | 175704 | DS201 L C32 APR30 | 2CSR245440R1324 | | 0.240 | 5 |

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# RCBOs
## DS201 series 6000 AC type, B characteristic



DS201

### DS201 AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 279709 | DS201 B6 AC30 | 2CSR255040R1065 | | 0.240 | 5 |
| | | 10 | 280309 | DS201 B10 AC30 | 2CSR255040R1105 | | 0.240 | 5 |
| | | 13 | 285205 | DS201 B13 AC30 | 2CSR255040R1135 | | 0.240 | 5 |
| | | 16 | 285304 | DS201 B16 AC30 | 2CSR255040R1165 | | 0.240 | 5 |
| | | 20 | 285403 | DS201 B20 AC30 | 2CSR255040R1205 | | 0.240 | 5 |
| | | 25 | 285502 | DS201 B25 AC30 | 2CSR255040R1255 | | 0.240 | 5 |
| | | 32 | 285601 | DS201 B32 AC30 | 2CSR255040R1325 | | 0.240 | 5 |
| | | 40 | 285700 | DS201 B40 AC30 | 2CSR255040R1405 | | 0.240 | 5 |
| | 100 | 6 | 285809 | DS201 B6 AC100 | 2CSR255040R2065 | | 0.240 | 5 |
| | | 10 | 285908 | DS201 B10 AC100 | 2CSR255040R2105 | | 0.240 | 5 |
| | | 13 | 286004 | DS201 B13 AC100 | 2CSR255040R2135 | | 0.240 | 5 |
| | | 16 | 286103 | DS201 B16 AC100 | 2CSR255040R2165 | | 0.240 | 5 |
| | | 20 | 286202 | DS201 B20 AC100 | 2CSR255040R2205 | | 0.240 | 5 |
| | | 25 | 286301 | DS201 B25 AC100 | 2CSR255040R2255 | | 0.240 | 5 |
| | | 32 | 286400 | DS201 B32 AC100 | 2CSR255040R2325 | | 0.240 | 5 |
| | | 40 | 286509 | DS201 B40 AC100 | 2CSR255040R2405 | | 0.240 | 5 |
| | 300 | 6 | 286608 | DS201 B6 AC300 | 2CSR255040R3065 | | 0.240 | 5 |
| | | 10 | 286707 | DS201 B10 AC300 | 2CSR255040R3105 | | 0.240 | 5 |
| | | 13 | 293903 | DS201 B13 AC300 | 2CSR255040R3135 | | 0.240 | 5 |
| | | 16 | 294009 | DS201 B16 AC300 | 2CSR255040R3165 | | 0.240 | 5 |
| | | 20 | 294108 | DS201 B20 AC300 | 2CSR255040R3205 | | 0.240 | 5 |
| | | 25 | 294207 | DS201 B25 AC300 | 2CSR255040R3255 | | 0.240 | 5 |
| | | 32 | 294306 | DS201 B32 AC300 | 2CSR255040R3325 | | 0.240 | 5 |
| | | 40 | 294405 | DS201 B40 AC300 | 2CSR255040R3405 | | 0.240 | 5 |

# RCBOs
# DS201 series 6000 AC type, C characteristic




DS201

## DS201 AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).
**Application: residential, commercial, industrial.**
**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**
**Icn=6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 294504 | DS201 C6 AC30 | 2CSR255040R1064 | | 0.240 | 5 |
| | | 10 | 294603 | DS201 C10 AC30 | 2CSR255040R1104 | | 0.240 | 5 |
| | | 13 | 294702 | DS201 C13 AC30 | 2CSR255040R1134 | | 0.240 | 5 |
| | | 16 | 294801 | DS201 C16 AC30 | 2CSR255040R1164 | | 0.240 | 5 |
| | | 20 | 294900 | DS201 C20 AC30 | 2CSR255040R1204 | | 0.240 | 5 |
| | | 25 | 295006 | DS201 C25 AC30 | 2CSR255040R1254 | | 0.240 | 5 |
| | | 32 | 296003 | DS201 C32 AC30 | 2CSR255040R1324 | | 0.240 | 5 |
| | | 40 | 296102 | DS201 C40 AC30 | 2CSR255040R1404 | | 0.240 | 5 |
| | 100 | 6 | 296201 | DS201 C6 AC100 | 2CSR255040R2064 | | 0.240 | 5 |
| | | 10 | 296409 | DS201 C10 AC100 | 2CSR255040R2104 | | 0.240 | 5 |
| | | 13 | 370802 | DS201 C13 AC100 | 2CSR255040R2134 | | 0.240 | 5 |
| | | 16 | 370901 | DS201 C16 AC100 | 2CSR255040R2164 | | 0.240 | 5 |
| | | 20 | 371601 | DS201 C20 AC100 | 2CSR255040R2204 | | 0.240 | 5 |
| | | 25 | 371700 | DS201 C25 AC100 | 2CSR255040R2254 | | 0.240 | 5 |
| | | 32 | 371809 | DS201 C32 AC100 | 2CSR255040R2324 | | 0.240 | 5 |
| | | 40 | 498100 | DS201 C40 AC100 | 2CSR255040R2404 | | 0.240 | 5 |
| | 300 | 6 | 498209 | DS201 C6 AC300 | 2CSR255040R3064 | | 0.240 | 5 |
| | | 10 | 498308 | DS201 C10 AC300 | 2CSR255040R3104 | | 0.240 | 5 |
| | | 13 | 505907 | DS201 C13 AC300 | 2CSR255040R3134 | | 0.240 | 5 |
| | | 16 | 506003 | DS201 C16 AC300 | 2CSR255040R3164 | | 0.240 | 5 |
| | | 20 | 506102 | DS201 C20 AC300 | 2CSR255040R3204 | | 0.240 | 5 |
| | | 25 | 506201 | DS201 C25 AC300 | 2CSR255040R3254 | | 0.240 | 5 |
| | | 32 | 618300 | DS201 C32 AC300 | 2CSR255040R3324 | | 0.240 | 5 |
| | | 40 | 638407 | DS201 C40 AC300 | 2CSR255040R3404 | | 0.240 | 5 |
| | 1000 | 6 | 996606 | DS201 C6 AC1000 | 2CSR255040R5064 | | 0.240 | 5 |
| | | 10 | 996705 | DS201 C10 AC1000 | 2CSR255040R5104 | | 0.240 | 5 |
| | | 16 | 996804 | DS201 C16 AC1000 | 2CSR255040R5164 | | 0.240 | 5 |
| | | 20 | 996903 | DS201 C20 AC1000 | 2CSR255040R5204 | | 0.240 | 5 |
| | | 25 | 997009 | DS201 C25 AC1000 | 2CSR255040R5254 | | 0.240 | 5 |
| | | 32 | 997108 | DS201 C32 AC1000 | 2CSR255040R5324 | | 0.240 | 5 |
| | | 40 | 997207 | DS201 C40 AC1000 | 2CSR255040R5404 | | 0.240 | 5 |


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# RCBOs
# DS201 series 6000 APR type, C characteristic



DS201

## DS201 APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 997306 | DS201 C6 APR30 | 2CSR255440R1064 | | 0.240 | 5 |
| | | 10 | 997405 | DS201 C10 APR30 | 2CSR255440R1104 | | 0.240 | 5 |
| | | 13 | 997504 | DS201 C13 APR30 | 2CSR255440R1134 | | 0.240 | 5 |
| | | 16 | 997603 | DS201 C16 APR30 | 2CSR255440R1164 | | 0.240 | 5 |
| | | 20 | 997702 | DS201 C20 APR30 | 2CSR255440R1204 | | 0.240 | 5 |
| | | 25 | 997801 | DS201 C25 APR30 | 2CSR255440R1254 | | 0.240 | 5 |
| | | 32 | 997900 | DS201 C32 APR30 | 2CSR255440R1324 | | 0.240 | 5 |
| | | 40 | 998006 | DS201 C40 APR30 | 2CSR255440R1404 | | 0.240 | 5 |
| | 100 | 6 | 126454 | DS201 C6 APR100 | 2CSR255440R2064 | | 0.240 | 5 |
| | | 10 | 126553 | DS201 C10 APR100 | 2CSR255440R2104 | | 0.240 | 5 |
| | | 13 | 126652 | DS201 C13 APR100 | 2CSR255440R2134 | | 0.240 | 5 |
| | | 16 | 126751 | DS201 C16 APR100 | 2CSR255440R2164 | | 0.240 | 5 |
| | | 20 | 126850 | DS201 C20 APR100 | 2CSR255440R2204 | | 0.240 | 5 |
| | | 25 | 126959 | DS201 C25 APR100 | 2CSR255440R2254 | | 0.240 | 5 |
| | | 32 | 127055 | DS201 C32 APR100 | 2CSR255440R2324 | | 0.240 | 5 |
| | | 40 | 127154 | DS201 C40 APR100 | 2CSR255440R2404 | | 0.240 | 5 |
| | 300 | 6 | 998105 | DS201 C6 APR300 | 2CSR255440R3064 | | 0.240 | 5 |
| | | 10 | 998204 | DS201 C10 APR300 | 2CSR255440R3104 | | 0.240 | 5 |
| | | 13 | 998303 | DS201 C13 APR300 | 2CSR255440R3134 | | 0.240 | 5 |
| | | 16 | 998402 | DS201 C16 APR300 | 2CSR255440R3164 | | 0.240 | 5 |
| | | 20 | 998501 | DS201 C20 APR300 | 2CSR255440R3204 | | 0.240 | 5 |
| | | 25 | 998600 | DS201 C25 APR300 | 2CSR255440R3254 | | 0.240 | 5 |
| | | 32 | 998709 | DS201 C32 APR300 | 2CSR255440R3324 | | 0.240 | 5 |
| | | 40 | 998808 | DS201 C40 APR300 | 2CSR255440R3404 | | 0.240 | 5 |

# RCBOs
# DS201 series 6000 A type, B characteristic




DS201

## DS201 A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**

| Number of poles | Rated residual current In mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 10 | 995708 | DS201 B10 A10 | 2CSR255140R0105 | | 0.240 | 5 |
| | | 13 | 995807 | DS201 B13 A10 | 2CSR255140R0135 | | 0.240 | 5 |
| | | 16 | 995906 | DS201 B16 A10 | 2CSR255140R0165 | | 0.240 | 5 |
| | 30 | 6 | 638506 | DS201 B6 A30 | 2CSR255140R1065 | | 0.240 | 5 |
| | | 10 | 647805 | DS201 B10 A30 | 2CSR255140R1105 | | 0.240 | 5 |
| | | 13 | 655503 | DS201 B13 A30 | 2CSR255140R1135 | | 0.240 | 5 |
| | | 16 | 655602 | DS201 B16 A30 | 2CSR255140R1165 | | 0.240 | 5 |
| | | 20 | 655701 | DS201 B20 A30 | 2CSR255140R1205 | | 0.240 | 5 |
| | | 25 | 766902 | DS201 B25 A30 | 2CSR255140R1255 | | 0.240 | 5 |
| | | 32 | 814504 | DS201 B32 A30 | 2CSR255140R1325 | | 0.240 | 5 |
| | | 40 | 910602 | DS201 B40 A30 | 2CSR255140R1405 | | 0.240 | 5 |
| | 100 | 6 | 990307 | DS201 B6 A100 | 2CSR255140R2065 | | 0.240 | 5 |
| | | 10 | 990406 | DS201 B10 A100 | 2CSR255140R2105 | | 0.240 | 5 |
| | | 13 | 990505 | DS201 B13 A100 | 2CSR255140R2135 | | 0.240 | 5 |
| | | 16 | 990604 | DS201 B16 A100 | 2CSR255140R2165 | | 0.240 | 5 |
| | | 20 | 990703 | DS201 B20 A100 | 2CSR255140R2205 | | 0.240 | 5 |
| | | 25 | 990802 | DS201 B25 A100 | 2CSR255140R2255 | | 0.240 | 5 |
| | | 32 | 990901 | DS201 B32 A100 | 2CSR255140R2325 | | 0.240 | 5 |
| | | 40 | 991007 | DS201 B40 A100 | 2CSR255140R2405 | | 0.240 | 5 |
| | 300 | 6 | 991908 | DS201 B6 A300 | 2CSR255140R3065 | | 0.240 | 5 |
| | | 10 | 992004 | DS201 B10 A300 | 2CSR255140R3105 | | 0.240 | 5 |
| | | 13 | 992103 | DS201 B13 A300 | 2CSR255140R3135 | | 0.240 | 5 |
| | | 16 | 992202 | DS201 B16 A300 | 2CSR255140R3165 | | 0.240 | 5 |
| | | 20 | 992301 | DS201 B20 A300 | 2CSR255140R3205 | | 0.240 | 5 |
| | | 25 | 992400 | DS201 B25 A300 | 2CSR255140R3255 | | 0.240 | 5 |
| | | 32 | 992509 | DS201 B32 A300 | 2CSR255140R3325 | | 0.240 | 5 |
| | | 40 | 992608 | DS201 B40 A300 | 2CSR255140R3405 | | 0.240 | 5 |

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# RCBOs
## DS201 series 6000 A type, C characteristic



DS201

### DS201 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 10 | 996002 | DS201 C10 A10 | 2CSR255140R0104 | | 0.240 | 5 |
| | | 13 | 996101 | DS201 C13 A10 | 2CSR255140R0134 | | 0.240 | 5 |
| | | 16 | 996200 | DS201 C16 A10 | 2CSR255140R0164 | | 0.240 | 5 |
| | 30 | 2 | 123958 | DS201 C2 A30 | 2CSR255140R1024 | | 0.240 | 5 |
| | | 4 | 942306 | DS201 C4 A30 | 2CSR255140R1044 | | 0.240 | 5 |
| | | 6 | 942405 | DS201 C6 A30 | 2CSR255140R1064 | | 0.240 | 5 |
| | | 8 | 124054 | DS201 C8 A30 | 2CSR255140R1084 | | 0.240 | 5 |
| | | 10 | 952503 | DS201 C10 A30 | 2CSR255140R1104 | | 0.240 | 5 |
| | | 13 | 976004 | DS201 C13 A30 | 2CSR255140R1134 | | 0.240 | 5 |
| | | 16 | 976103 | DS201 C16 A30 | 2CSR255140R1164 | | 0.240 | 5 |
| | | 20 | 976202 | DS201 C20 A30 | 2CSR255140R1204 | | 0.240 | 5 |
| | | 25 | 976301 | DS201 C25 A30 | 2CSR255140R1254 | | 0.240 | 5 |
| | | 32 | 990109 | DS201 C32 A30 | 2CSR255140R1324 | | 0.240 | 5 |
| | | 40 | 990208 | DS201 C40 A30 | 2CSR255140R1404 | | 0.240 | 5 |
| | 100 | 6 | 991106 | DS201 C6 A100 | 2CSR255140R2064 | | 0.240 | 5 |
| | | 10 | 991205 | DS201 C10 A100 | 2CSR255140R2104 | | 0.240 | 5 |
| | | 13 | 991304 | DS201 C13 A100 | 2CSR255140R2134 | | 0.240 | 5 |
| | | 16 | 991403 | DS201 C16 A100 | 2CSR255140R2164 | | 0.240 | 5 |
| | | 20 | 991502 | DS201 C20 A100 | 2CSR255140R2204 | | 0.240 | 5 |
| | | 25 | 991601 | DS201 C25 A100 | 2CSR255140R2254 | | 0.240 | 5 |
| | | 32 | 991700 | DS201 C32 A100 | 2CSR255140R2324 | | 0.240 | 5 |
| | | 40 | 991809 | DS201 C40 A100 | 2CSR255140R2404 | | 0.240 | 5 |
| | 300 | 2 | 124153 | DS201 C2 A300 | 2CSR255140R3024 | | 0.240 | 5 |
| | | 4 | 124252 | DS201 C4 A300 | 2CSR255140R3044 | | 0.240 | 5 |
| | | 6 | 992707 | DS201 C6 A300 | 2CSR255140R3064 | | 0.240 | 5 |
| | | 8 | 124351 | DS201 C8 A300 | 2CSR255140R3084 | | 0.240 | 5 |
| | | 10 | 992806 | DS201 C10 A300 | 2CSR255140R3104 | | 0.240 | 5 |
| | | 13 | 992905 | DS201 C13 A300 | 2CSR255140R3134 | | 0.240 | 5 |
| | | 16 | 993001 | DS201 C16 A300 | 2CSR255140R3164 | | 0.240 | 5 |
| | | 20 | 993100 | DS201 C20 A300 | 2CSR255140R3204 | | 0.240 | 5 |
| | | 25 | 993209 | DS201 C25 A300 | 2CSR255140R3254 | | 0.240 | 5 |
| | | 32 | 993308 | DS201 C32 A300 | 2CSR255140R3324 | | 0.240 | 5 |
| | | 40 | 993407 | DS201 C40 A300 | 2CSR255140R3404 | | 0.240 | 5 |

# RCBOs
# DS201 series 6000 A type, K characteristic




DS201

## DS201 A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 10 | 996309 | DS201 K10 A10 | 2CSR255140R0107 | | 0.240 | 5 |
| | | 13 | 996408 | DS201 K13 A10 | 2CSR255140R0137 | | 0.240 | 5 |
| | | 16 | 996507 | DS201 K16 A10 | 2CSR255140R0167 | | 0.240 | 5 |
| | 30 | 1 | 993506 | DS201 K1 A30 | 2CSR255140R1017 | | 0.240 | 5 |
| | | 2 | 993605 | DS201 K2 A30 | 2CSR255140R1027 | | 0.240 | 5 |
| | | 4 | 993704 | DS201 K4 A30 | 2CSR255140R1047 | | 0.240 | 5 |
| | | 6 | 993803 | DS201 K6 A30 | 2CSR255140R1067 | | 0.240 | 5 |
| | | 8 | 123750 | DS201 K8 A30 | 2CSR255140R1087 | | 0.240 | 5 |
| | | 10 | 993902 | DS201 K10 A30 | 2CSR255140R1107 | | 0.240 | 5 |
| | | 13 | 994008 | DS201 K13 A30 | 2CSR255140R1137 | | 0.240 | 5 |
| | | 16 | 994107 | DS201 K16 A30 | 2CSR255140R1167 | | 0.240 | 5 |
| | | 20 | 994206 | DS201 K20 A30 | 2CSR255140R1207 | | 0.240 | 5 |
| | | 25 | 994305 | DS201 K25 A30 | 2CSR255140R1257 | | 0.240 | 5 |
| | | 32 | 994404 | DS201 K32 A30 | 2CSR255140R1327 | | 0.240 | 5 |
| | | 40 | 994503 | DS201 K40 A30 | 2CSR255140R1407 | | 0.240 | 5 |
| | 300 | 1 | 994602 | DS201 K1 A300 | 2CSR255140R3017 | | 0.240 | 5 |
| | | 2 | 994701 | DS201 K2 A300 | 2CSR255140R3027 | | 0.240 | 5 |
| | | 4 | 994800 | DS201 K4 A300 | 2CSR255140R3047 | | 0.240 | 5 |
| | | 6 | 994909 | DS201 K6 A300 | 2CSR255140R3067 | | 0.240 | 5 |
| | | 8 | 123859 | DS201 K8 A300 | 2CSR255140R3087 | | 0.240 | 5 |
| | | 10 | 995005 | DS201 K10 A300 | 2CSR255140R3107 | | 0.240 | 5 |
| | | 13 | 995104 | DS201 K13 A300 | 2CSR255140R3137 | | 0.240 | 5 |
| | | 16 | 995203 | DS201 K16 A300 | 2CSR255140R3167 | | 0.240 | 5 |
| | | 20 | 995302 | DS201 K20 A300 | 2CSR255140R3207 | | 0.240 | 5 |
| | | 25 | 995401 | DS201 K25 A300 | 2CSR255140R3257 | | 0.240 | 5 |
| | | 32 | 995500 | DS201 K32 A300 | 2CSR255140R3327 | | 0.240 | 5 |
| | | 40 | 995609 | DS201 K40 A300 | 2CSR255140R3407 | | 0.240 | 5 |

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# RCBOs
## DS201 T series 6000 A type, B, C and K characteristics



DS201 T

### DS201 T A type

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA). DS201 T range is able to meet the most strict requirements for railway application in the rolling stock traction business (classification I2-F3 according to NF F 16-101/102 and R26/ HL3 according to EN 45545-1:2013 and EN 45545-2:2013).

**Application: railway, rolling stock, traction.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



### B characteristic

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 002031 | DS201T B6 A30 | 2CSR255148R1065 | | 0.240 | 1 |
| | | 10 | 001935 | DS201T B10 A30 | 2CSR255148R1105 | | 0.240 | 1 |
| | | 13 | 031437 | DS201T B13 A30 | 2CSR255148R1135 | | 0.240 | 1 |
| | | 16 | 001836 | DS201T B16 A30 | 2CSR255148R1165 | | 0.240 | 1 |
| | | 20 | 001737 | DS201T B20 A30 | 2CSR255148R1205 | | 0.240 | 1 |
| | | 25 | 031338 | DS201T B25 A30 | 2CSR255148R1255 | | 0.240 | 1 |
| | | 32 | 001638 | DS201T B32 A30 | 2CSR255148R1325 | | 0.240 | 1 |
| | | 40 | 001539 | DS201T B40 A30 | 2CSR255148R1405 | | 0.240 | 1 |

### C characteristic

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 001430 | DS201T C6 A30 | 2CSR255148R1064 | | 0.240 | 1 |
| | | 10 | 001331 | DS201T C10 A30 | 2CSR255148R1104 | | 0.240 | 1 |
| | | 13 | 001232 | DS201T C13 A30 | 2CSR255148R1134 | | 0.240 | 1 |
| | | 16 | 629832 | DS201T C16 A30 | 2CSR255148R1164 | | 0.240 | 1 |
| | | 20 | 648437 | DS201T C20 A30 | 2CSR255148R1204 | | 0.240 | 1 |
| | | 25 | 648338 | DS201T C25 A30 | 2CSR255148R1254 | | 0.240 | 1 |
| | | 32 | 297031 | DS201T C32 A30 | 2CSR255148R1324 | | 0.240 | 1 |
| | | 40 | 953234 | DS201T C40 A30 | 2CSR255148R1404 | | 0.240 | 1 |

### K characteristic

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 959434 | DS201T K6 A30 | 2CSR255148R1067 | | 0.240 | 1 |
| | | 10 | 959137 | DS201T K10 A30 | 2CSR255148R1107 | | 0.240 | 1 |
| | | 13 | 958833 | DS201T K13 A30 | 2CSR255148R1137 | | 0.240 | 1 |
| | | 16 | 958536 | DS201T K16 A30 | 2CSR255148R1167 | | 0.240 | 1 |
| | | 20 | 960539 | DS201T K20 A30 | 2CSR255148R1207 | | 0.240 | 1 |
| | | 25 | 960331 | DS201T K25 A30 | 2CSR255148R1257 | | 0.240 | 1 |
| | | 32 | 960133 | DS201T K32 A30 | 2CSR255148R1327 | | 0.240 | 1 |
| | | 40 | 959731 | DS201T K40 A30 | 2CSR255148R1407 | | 0.240 | 1 |

# RCBOs
# DS201 M series 10000 AC type, B characteristic




DS201 M

## DS201 M AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 998907 | DS201 M B6 AC30 | 2CSR275040R1065 | | 0.240 | 5 |
| | | 10 | 999003 | DS201 M B10 AC30 | 2CSR275040R1105 | | 0.240 | 5 |
| | | 13 | 999102 | DS201 M B13 AC30 | 2CSR275040R1135 | | 0.240 | 5 |
| | | 16 | 999201 | DS201 M B16 AC30 | 2CSR275040R1165 | | 0.240 | 5 |
| | | 20 | 999300 | DS201 M B20 AC30 | 2CSR275040R1205 | | 0.240 | 5 |
| | | 25 | 999409 | DS201 M B25 AC30 | 2CSR275040R1255 | | 0.240 | 5 |
| | | 32 | 999508 | DS201 M B32 AC30 | 2CSR275040R1325 | | 0.240 | 5 |
| | | 40 | 999607 | DS201 M B40 AC30 | 2CSR275040R1405 | | 0.240 | 5 |
| | 100 | 6 | 106159 | DS201 M B6 AC100 | 2CSR275040R2065 | | 0.240 | 5 |
| | | 10 | 106258 | DS201 M B10 AC100 | 2CSR275040R2105 | | 0.240 | 5 |
| | | 13 | 106357 | DS201 M B13 AC100 | 2CSR275040R2135 | | 0.240 | 5 |
| | | 16 | 106456 | DS201 M B16 AC100 | 2CSR275040R2165 | | 0.240 | 5 |
| | | 20 | 106555 | DS201 M B20 AC100 | 2CSR275040R2205 | | 0.240 | 5 |
| | | 25 | 106654 | DS201 M B25 AC100 | 2CSR275040R2255 | | 0.240 | 5 |
| | | 32 | 106753 | DS201 M B32 AC100 | 2CSR275040R2325 | | 0.240 | 5 |
| | | 40 | 106852 | DS201 M B40 AC100 | 2CSR275040R2405 | | 0.240 | 5 |
| | 300 | 6 | 107750 | DS201 M B6 AC300 | 2CSR275040R3065 | | 0.240 | 5 |
| | | 10 | 107859 | DS201 M B10 AC300 | 2CSR275040R3105 | | 0.240 | 5 |
| | | 13 | 107958 | DS201 M B13 AC300 | 2CSR275040R3135 | | 0.240 | 5 |
| | | 16 | 108054 | DS201 M B16 AC300 | 2CSR275040R3165 | | 0.240 | 5 |
| | | 20 | 108153 | DS201 M B20 AC300 | 2CSR275040R3205 | | 0.240 | 5 |
| | | 25 | 108252 | DS201 M B25 AC300 | 2CSR275040R3255 | | 0.240 | 5 |
| | | 32 | 108351 | DS201 M B32 AC300 | 2CSR275040R3325 | | 0.240 | 5 |
| | | 40 | 108450 | DS201 M B40 AC300 | 2CSR275040R3405 | | 0.240 | 5 |

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# RCBOs
## DS201 M series 10000 AC type, C characteristic



DS201 M

### DS201 M AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 999706 | DS201 M C6 AC30 | 2CSR275040R1064 | | 0.240 | 5 |
| | | 10 | 999805 | DS201 M C10 AC30 | 2CSR275040R1104 | | 0.240 | 5 |
| | | 13 | 999904 | DS201 M C13 AC30 | 2CSR275040R1134 | | 0.240 | 5 |
| | | 16 | 105657 | DS201 M C16 AC30 | 2CSR275040R1164 | | 0.240 | 5 |
| | | 20 | 105756 | DS201 M C20 AC30 | 2CSR275040R1204 | | 0.240 | 5 |
| | | 25 | 105855 | DS201 M C25 AC30 | 2CSR275040R1254 | | 0.240 | 5 |
| | | 32 | 105954 | DS201 M C32 AC30 | 2CSR275040R1324 | | 0.240 | 5 |
| | | 40 | 106050 | DS201 M C40 AC30 | 2CSR275040R1404 | | 0.240 | 5 |
| | 100 | 6 | 106951 | DS201 M C6 AC100 | 2CSR275040R2064 | | 0.240 | 5 |
| | | 10 | 107057 | DS201 M C10 AC100 | 2CSR275040R2104 | | 0.240 | 5 |
| | | 13 | 107156 | DS201 M C13 AC100 | 2CSR275040R2134 | | 0.240 | 5 |
| | | 16 | 107255 | DS201 M C16 AC100 | 2CSR275040R2164 | | 0.240 | 5 |
| | | 20 | 107354 | DS201 M C20 AC100 | 2CSR275040R2204 | | 0.240 | 5 |
| | | 25 | 107453 | DS201 M C25 AC100 | 2CSR275040R2254 | | 0.240 | 5 |
| | | 32 | 107552 | DS201 M C32 AC100 | 2CSR275040R2324 | | 0.240 | 5 |
| | | 40 | 107651 | DS201 M C40 AC100 | 2CSR275040R2404 | | 0.240 | 5 |
| | 300 | 6 | 108559 | DS201 M C6 AC300 | 2CSR275040R3064 | | 0.240 | 5 |
| | | 10 | 108658 | DS201 M C10 AC300 | 2CSR275040R3104 | | 0.240 | 5 |
| | | 13 | 108757 | DS201 M C13 AC300 | 2CSR275040R3134 | | 0.240 | 5 |
| | | 16 | 108856 | DS201 M C16 AC300 | 2CSR275040R3164 | | 0.240 | 5 |
| | | 20 | 108955 | DS201 M C20 AC300 | 2CSR275040R3204 | | 0.240 | 5 |
| | | 25 | 109051 | DS201 M C25 AC300 | 2CSR275040R3254 | | 0.240 | 5 |
| | | 32 | 109150 | DS201 M C32 AC300 | 2CSR275040R3324 | | 0.240 | 5 |
| | | 40 | 109259 | DS201 M C40 AC300 | 2CSR275040R3404 | | 0.240 | 5 |

# RCBOs
# DS201 M series 10000 APR type, C characteristic




DS201 M

## DS201 M APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: residential, commercial, industrial.**
**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**
**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 114154 | DS201 M C6 APR30 | 2CSR275440R1064 | | 0.240 | 5 |
| | | 10 | 114253 | DS201 M C10 APR30 | 2CSR275440R1104 | | 0.240 | 5 |
| | | 13 | 114352 | DS201 M C13 APR30 | 2CSR275440R1134 | | 0.240 | 5 |
| | | 16 | 114451 | DS201 M C16 APR30 | 2CSR275440R1164 | | 0.240 | 5 |
| | | 20 | 114550 | DS201 M C20 APR30 | 2CSR275440R1204 | | 0.240 | 5 |
| | | 25 | 114659 | DS201 M C25 APR30 | 2CSR275440R1254 | | 0.240 | 5 |
| | | 32 | 114758 | DS201 M C32 APR30 | 2CSR275440R1324 | | 0.240 | 5 |
| | | 40 | 114857 | DS201 M C40 APR30 | 2CSR275440R1404 | | 0.240 | 5 |
| | 100 | 6 | 127253 | DS201 M C6 APR100 | 2CSR275440R2064 | | 0.240 | 5 |
| | | 10 | 127352 | DS201 M C10 APR100 | 2CSR275440R2104 | | 0.240 | 5 |
| | | 13 | 127451 | DS201 M C13 APR100 | 2CSR275440R2134 | | 0.240 | 5 |
| | | 16 | 127550 | DS201 M C16 APR100 | 2CSR275440R2164 | | 0.240 | 5 |
| | | 20 | 127659 | DS201 M C20 APR100 | 2CSR275440R2204 | | 0.240 | 5 |
| | | 25 | 127758 | DS201 M C25 APR100 | 2CSR275440R2254 | | 0.240 | 5 |
| | | 32 | 127857 | DS201 M C32 APR100 | 2CSR275440R2324 | | 0.240 | 5 |
| | | 40 | 127956 | DS201 M C40 APR100 | 2CSR275440R2404 | | 0.240 | 5 |
| | 300 | 6 | 114956 | DS201 M C6 APR300 | 2CSR275440R3064 | | 0.240 | 5 |
| | | 10 | 115052 | DS201 M C10 APR300 | 2CSR275440R3104 | | 0.240 | 5 |
| | | 13 | 115151 | DS201 M C13 APR300 | 2CSR275440R3134 | | 0.240 | 5 |
| | | 16 | 115250 | DS201 M C16 APR300 | 2CSR275440R3164 | | 0.240 | 5 |
| | | 20 | 115359 | DS201 M C20 APR300 | 2CSR275440R3204 | | 0.240 | 5 |
| | | 25 | 115458 | DS201 M C25 APR300 | 2CSR275440R3254 | | 0.240 | 5 |
| | | 32 | 115557 | DS201 M C32 APR300 | 2CSR275440R3324 | | 0.240 | 5 |
| | | 40 | 115656 | DS201 M C40 APR300 | 2CSR275440R3404 | | 0.240 | 5 |

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# RCBOs
## DS201 M series 10000 A type, B characteristic




DS201 M

### DS201 M A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 10 | 124450 | DS201 M B10 A10 | 2CSR275140R0105 | | 0.240 | 5 |
| | | 16 | 124559 | DS201 M B16 A10 | 2CSR275140R0165 | | 0.240 | 5 |
| | 30 | 6 | 109358 | DS201 M B6 A30 | 2CSR275140R1065 | | 0.240 | 5 |
| | | 10 | 109457 | DS201 M B10 A30 | 2CSR275140R1105 | | 0.240 | 5 |
| | | 13 | 109556 | DS201 M B13 A30 | 2CSR275140R1135 | | 0.240 | 5 |
| | | 16 | 109655 | DS201 M B16 A30 | 2CSR275140R1165 | | 0.240 | 5 |
| | | 20 | 109754 | DS201 M B20 A30 | 2CSR275140R1205 | | 0.240 | 5 |
| | | 25 | 109853 | DS201 M B25 A30 | 2CSR275140R1255 | | 0.240 | 5 |
| | | 32 | 109952 | DS201 M B32 A30 | 2CSR275140R1325 | | 0.240 | 5 |
| | | 40 | 110057 | DS201 M B40 A30 | 2CSR275140R1405 | | 0.240 | 5 |
| | 100 | 6 | 111054 | DS201 M B6 A100 | 2CSR275140R2065 | | 0.240 | 5 |
| | | 10 | 111153 | DS201 M B10 A100 | 2CSR275140R2105 | | 0.240 | 5 |
| | | 13 | 111252 | DS201 M B13 A100 | 2CSR275140R2135 | | 0.240 | 5 |
| | | 16 | 111351 | DS201 M B16 A100 | 2CSR275140R2165 | | 0.240 | 5 |
| | | 20 | 111450 | DS201 M B20 A100 | 2CSR275140R2205 | | 0.240 | 5 |
| | | 25 | 111559 | DS201 M B25 A100 | 2CSR275140R2255 | | 0.240 | 5 |
| | | 32 | 111658 | DS201 M B32 A100 | 2CSR275140R2325 | | 0.240 | 5 |
| | | 40 | 111757 | DS201 M B40 A100 | 2CSR275140R2405 | | 0.240 | 5 |
| | 300 | 6 | 112556 | DS201 M B6 A300 | 2CSR275140R3065 | | 0.240 | 5 |
| | | 10 | 112655 | DS201 M B10 A300 | 2CSR275140R3105 | | 0.240 | 5 |
| | | 13 | 112754 | DS201 M B13 A300 | 2CSR275140R3135 | | 0.240 | 5 |
| | | 16 | 112853 | DS201 M B16 A300 | 2CSR275140R3165 | | 0.240 | 5 |
| | | 20 | 112952 | DS201 M B20 A300 | 2CSR275140R3205 | | 0.240 | 5 |
| | | 25 | 113058 | DS201 M B25 A300 | 2CSR275140R3255 | | 0.240 | 5 |
| | | 32 | 113157 | DS201 M B32 A300 | 2CSR275140R3325 | | 0.240 | 5 |
| | | 40 | 113256 | DS201 M B40 A300 | 2CSR275140R3405 | | 0.240 | 5 |

# RCBOs
# DS201 M series 10000 A type, C characteristic




DS201 M

## DS201 M A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 10 | 10 | 124658 | DS201 M C10 A10 | 2CSR275140R0104 | | 0.240 | 5 |
| | | 16 | 124757 | DS201 M C16 A10 | 2CSR275140R0164 | | 0.240 | 5 |
| | 30 | 4 | 110156 | DS201 M C4 A30 | 2CSR275140R1044 | | 0.240 | 5 |
| | | 6 | 110255 | DS201 M C6 A30 | 2CSR275140R1064 | | 0.240 | 5 |
| | | 10 | 110354 | DS201 M C10 A30 | 2CSR275140R1104 | | 0.240 | 5 |
| | | 13 | 110453 | DS201 M C13 A30 | 2CSR275140R1134 | | 0.240 | 5 |
| | | 16 | 110552 | DS201 M C16 A30 | 2CSR275140R1164 | | 0.240 | 5 |
| | | 20 | 110651 | DS201 M C20 A30 | 2CSR275140R1204 | | 0.240 | 5 |
| | | 25 | 110750 | DS201 M C25 A30 | 2CSR275140R1254 | | 0.240 | 5 |
| | | 32 | 110859 | DS201 M C32 A30 | 2CSR275140R1324 | | 0.240 | 5 |
| | | 40 | 110958 | DS201 M C40 A30 | 2CSR275140R1404 | | 0.240 | 5 |
| | 100 | 6 | 111856 | DS201 M C6 A100 | 2CSR275140R2064 | | 0.240 | 5 |
| | | 10 | 111955 | DS201 M C10 A100 | 2CSR275140R2104 | | 0.240 | 5 |
| | | 16 | 112051 | DS201 M C16 A100 | 2CSR275140R2164 | | 0.240 | 5 |
| | | 20 | 112150 | DS201 M C20 A100 | 2CSR275140R2204 | | 0.240 | 5 |
| | | 25 | 112259 | DS201 M C25 A100 | 2CSR275140R2254 | | 0.240 | 5 |
| | | 32 | 112358 | DS201 M C32 A100 | 2CSR275140R2324 | | 0.240 | 5 |
| | | 40 | 112457 | DS201 M C40 A100 | 2CSR275140R2404 | | 0.240 | 5 |
| | 300 | 6 | 113355 | DS201 M C6 A300 | 2CSR275140R3064 | | 0.240 | 5 |
| | | 10 | 113454 | DS201 M C10 A300 | 2CSR275140R3104 | | 0.240 | 5 |
| | | 13 | 113553 | DS201 M C13 A300 | 2CSR275140R3134 | | 0.240 | 5 |
| | | 16 | 113652 | DS201 M C16 A300 | 2CSR275140R3164 | | 0.240 | 5 |
| | | 20 | 113751 | DS201 M C20 A300 | 2CSR275140R3204 | | 0.240 | 5 |
| | | 25 | 113850 | DS201 M C25 A300 | 2CSR275140R3254 | | 0.240 | 5 |
| | | 32 | 113959 | DS201 M C32 A300 | 2CSR275140R3324 | | 0.240 | 5 |
| | | 40 | 114055 | DS201 M C40 A300 | 2CSR275140R3404 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS201 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
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Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCBOs
# DS201 M series 10000 A type, K characteristic



DS201 M

## DS201 M A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1P+N | 100 | 6 | 299455 | DS201 M K6 A100 | 2CSR275140R2067 | | 0.240 | 5 |
| | | 10 | 299554 | DS201 M K10 A100 | 2CSR275140R2107 | | 0.240 | 5 |
| | | 13 | 299653 | DS201 M K13 A100 | 2CSR275140R2137 | | 0.240 | 5 |
| | | 16 | 299752 | DS201 M K16 A100 | 2CSR275140R2167 | | 0.240 | 5 |
| | | 20 | 299851 | DS201 M K20 A100 | 2CSR275140R2207 | | 0.240 | 5 |
| | | 25 | 299950 | DS201 M K25 A100 | 2CSR275140R2257 | | 0.240 | 5 |
| | | 32 | 300052 | DS201 M K32 A100 | 2CSR275140R2327 | | 0.240 | 5 |
| | | 40 | 300151 | DS201 M K40 A100 | 2CSR275140R2407 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS201 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
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# RCBOs
# DS201 M 110V series 10000 A type, B and C characteristic






DS201 M 110V

## DS201 M 110V A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications.

**Application: residential, commercial, industrial.**

**Standard: IEC 61009-1; IEC 61009-2-1**

**Icn=10000 A**

**B characteristic**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 077930 | DS201 M B6 A30 110V | 2CSR275199R1065 | | 0.240 | 5 |
| | | 10 | 077831 | DS201 M B10 A30 110V | 2CSR275199R1105 | | 0.240 | 5 |
| | | 13 | 077732 | DS201 M B13 A30 110V | 2CSR275199R1135 | | 0.240 | 5 |
| | | 16 | 077633 | DS201 M B16 A30 110V | 2CSR275199R1165 | | 0.240 | 5 |
| | | 20 | 080336 | DS201 M B20 A30 110V | 2CSR275199R1205 | | 0.240 | 5 |
| | | 25 | 080237 | DS201 M B25 A30 110V | 2CSR275199R1255 | | 0.240 | 5 |
| | | 32 | 080138 | DS201 M B32 A30 110V | 2CSR275199R1325 | | 0.240 | 5 |
| | | 40 | 080039 | DS201 M B40 A30 110V | 2CSR275199R1405 | | 0.240 | 5 |

**C characteristic**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 30 | 6 | 078739 | DS201 M C6 A30 110V | 2CSR275199R1064 | | 0.240 | 5 |
| | | 10 | 078630 | DS201 M C10 A30 110V | 2CSR275199R1104 | | 0.240 | 5 |
| | | 13 | 078531 | DS201 M C13 A30 110V | 2CSR275199R1134 | | 0.240 | 5 |
| | | 16 | 078432 | DS201 M C16 A30 110V | 2CSR275199R1164 | | 0.240 | 5 |
| | | 20 | 078333 | DS201 M C20 A30 110V | 2CSR275199R1204 | | 0.240 | 5 |
| | | 25 | 078234 | DS201 M C25 A30 110V | 2CSR275199R1254 | | 0.240 | 5 |
| | | 32 | 078135 | DS201 M C32 A30 110V | 2CSR275199R1324 | | 0.240 | 5 |
| | | 40 | 078036 | DS201 M C40 A30 110V | 2CSR275199R1404 | | 0.240 | 5 |

# S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.



Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2, 60898-1 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. **www.abb.com/lowvoltage**





# RCBOs
## DS202C technical features




**DS202 C**

3

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated current In | | A |
| | Rated sensitivity I$\Delta$n | | A |
| | Rated voltage Ue | | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Rated breaking capacity acc. to IEC/EN 61009 | ultimate Icn | A |
| | Rated breaking capacity acc. to IEC/EN 60947-2 | ultimate Icu | kA |
| | 2P @230 VAC | service Ics | kA |
| | Rated residual breaking capacity I$\Delta$m | | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Thermomagnetic release | B: 3 In $\leq$ Im $\leq$ 5 In | |
| | characteristic | C: 5 In $\leq$ Im $\leq$ 10 In | |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Flag indicators | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Reference temperature for setting of thermal element | | °C |
| | Ambient temperature (with daily average $\leq$ +35 °C) | | °C |
| | Storage temperature | | °C |
| Installation | Terminal type | top | |
| | | bottom | |
| | Terminal size top/bottom for cables | | $mm^2$ |
| | Terminal size top/bottom for busabar | | $mm^2$ |
| | Tightening torque top/bottom | | Nm |
| | Mounting | | |
| | Connection | | |
| Dimensions and weight | Dimensions (H x D x W) | | mm |
| | Weight | | g |
| Combination with auxiliary elements | Combinable with: | auxiliary contact | |
| | | signal contact | |
| | | shunt trip | |
| | | undervoltage release | |

| | DS202C | DS202C M | | DS202C M 110V |
|---|---|---|---|---|
| | IEC/EN 61009-1; IEC/EN 61009-2-1 | | | IEC 61009-1; IEC 61009-2-1 |
| | A | A | APR | A |
| | 2P | | | |
| | 6 ≤ In ≤ 32 | | | |
| | 0.03-0.3 | 0.01-0.03-0.3 | 0.03-0.3 | 0.03 |
| | 230-240 | | | |
| | 500 | | | |
| | 254 | | | |
| | 110 | | | 110 |
| | 170 for IΔn = 30 mA | | | |
| | 50…60 | | | |
| | 6000 | 10000 | | 10000 |
| | 10 | 10 | | 10 |
| | 6 | 7.5 | | 7.5 |
| | 6 | 6 | | 6 |
| | 4 | | | |
| | 2.5 | | | |
| | ■ | ■ | ■ | |
| | ■ | ■ | ■ | ■ |
| | 250 (3000 for APR versions) | | | |
| | black sealable in ON-OFF position | | | |
| | differential trip indicator (blue) | | | |
| | contact position indicator (green/red) | | | |
| | 10000 | | | |
| | 20000 | | | |
| | IP4X | | | |
| | IP2X | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | |
| | 30 | | | |
| | -25…+55 | | | |
| | -40…+70 | | | |
| | failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) | | | |
| | failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) | | | |
| | 25/25 | | | |
| | 10/10 | | | |
| | 2.8 | | | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | | | |
| | from top and bottom | | | |
| | 85 x 69 x 35 | | | |
| | 239 | | | |
| | yes | | | |
| | yes | | | |
| | yes | | | |
| | yes | | | |

# RCBOs
# DS202C series 6000 A type, B characteristic




DS202C

## DS202C A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 132257 | DS202C B6 A30 | 2CSR252140R1065 | | 0.240 | 5 |
| | | 10 | 132356 | DS202C B10 A30 | 2CSR252140R1105 | | 0.240 | 5 |
| | | 13 | 132455 | DS202C B13 A30 | 2CSR252140R1135 | | 0.240 | 5 |
| | | 16 | 132554 | DS202C B16 A30 | 2CSR252140R1165 | | 0.240 | 5 |
| | | 20 | 132653 | DS202C B20 A30 | 2CSR252140R1205 | | 0.240 | 5 |
| | | 25 | 132752 | DS202C B25 A30 | 2CSR252140R1255 | | 0.240 | 5 |
| | | 32 | 132851 | DS202C B32 A30 | 2CSR252140R1325 | | 0.240 | 5 |
| | 300 | 6 | 132950 | DS202C B6 A300 | 2CSR252140R3065 | | 0.240 | 5 |
| | | 10 | 133056 | DS202C B10 A300 | 2CSR252140R3105 | | 0.240 | 5 |
| | | 13 | 133155 | DS202C B13 A300 | 2CSR252140R3135 | | 0.240 | 5 |
| | | 16 | 133254 | DS202C B16 A300 | 2CSR252140R3165 | | 0.240 | 5 |
| | | 20 | 133353 | DS202C B20 A300 | 2CSR252140R3205 | | 0.240 | 5 |
| | | 25 | 133452 | DS202C B25 A300 | 2CSR252140R3255 | | 0.240 | 5 |
| | | 32 | 133551 | DS202C B32 A300 | 2CSR252140R3325 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS202C RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
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Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCBOs
# DS202C series 6000 A type, C characteristic



DS202C

## DS202C A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 122357 | DS202C C6 A30 | 2CSR252140R1064 | | 0.240 | 5 |
| | | 10 | 122456 | DS202C C10 A30 | 2CSR252140R1104 | | 0.240 | 5 |
| | | 13 | 122555 | DS202C C13 A30 | 2CSR252140R1134 | | 0.240 | 5 |
| | | 16 | 122654 | DS202C C16 A30 | 2CSR252140R1164 | | 0.240 | 5 |
| | | 20 | 122753 | DS202C C20 A30 | 2CSR252140R1204 | | 0.240 | 5 |
| | | 25 | 122852 | DS202C C25 A30 | 2CSR252140R1254 | | 0.240 | 5 |
| | | 32 | 122951 | DS202C C32 A30 | 2CSR252140R1324 | | 0.240 | 5 |
| | 300 | 6 | 123057 | DS202C C6 A300 | 2CSR252140R3064 | | 0.240 | 5 |
| | | 10 | 123156 | DS202C C10 A300 | 2CSR252140R3104 | | 0.240 | 5 |
| | | 13 | 123255 | DS202C C13 A300 | 2CSR252140R3134 | | 0.240 | 5 |
| | | 16 | 123354 | DS202C C16 A300 | 2CSR252140R3164 | | 0.240 | 5 |
| | | 20 | 123453 | DS202C C20 A300 | 2CSR252140R3204 | | 0.240 | 5 |
| | | 25 | 123552 | DS202C C25 A300 | 2CSR252140R3254 | | 0.240 | 5 |
| | | 32 | 123651 | DS202C C32 A300 | 2CSR252140R3324 | | 0.240 | 5 |

# RCBOs
# DS202C M series 10000 A type, B characteristic






DS202C M

## DS202C M A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 10 | 124856 | DS202C M B10 A10 | 2CSR272140R0105 | | 0.240 | 5 |
| | | 13 | 117759 | DS202C M B13 A10 | 2CSR272140R0135 | | 0.240 | 5 |
| | | 16 | 117858 | DS202C M B16 A10 | 2CSR272140R0165 | | 0.240 | 5 |
| | 30 | 6 | 118152 | DS202C M B6 A30 | 2CSR272140R1065 | | 0.240 | 5 |
| | | 10 | 118251 | DS202C M B10 A30 | 2CSR272140R1105 | | 0.240 | 5 |
| | | 13 | 118350 | DS202C M B13 A30 | 2CSR272140R1135 | | 0.240 | 5 |
| | | 16 | 118459 | DS202C M B16 A30 | 2CSR272140R1165 | | 0.240 | 5 |
| | | 20 | 118558 | DS202C M B20 A30 | 2CSR272140R1205 | | 0.240 | 5 |
| | | 25 | 118657 | DS202C M B25 A30 | 2CSR272140R1255 | | 0.240 | 5 |
| | | 32 | 118756 | DS202C M B32 A30 | 2CSR272140R1325 | | 0.240 | 5 |
| | 300 | 6 | 119555 | DS202C M B6 A300 | 2CSR272140R3065 | | 0.240 | 5 |
| | | 10 | 119654 | DS202C M B10 A300 | 2CSR272140R3105 | | 0.240 | 5 |
| | | 13 | 119753 | DS202C M B13 A300 | 2CSR272140R3135 | | 0.240 | 5 |
| | | 16 | 119852 | DS202C M B16 A300 | 2CSR272140R3165 | | 0.240 | 5 |
| | | 20 | 119951 | DS202C M B20 A300 | 2CSR272140R3205 | | 0.240 | 5 |
| | | 25 | 120056 | DS202C M B25 A300 | 2CSR272140R3255 | | 0.240 | 5 |
| | | 32 | 120155 | DS202C M B32 A300 | 2CSR272140R3325 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS202C RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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Busbar systems p.4/25

# RCBOs
## DS202C M series 10000 A type, C characteristic



DS202C M

### DS202C M A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 13 | 117957 | DS202C M C13 A10 | 2CSR272140R0134 | | 0.240 | 5 |
| | | 16 | 118053 | DS202C M C16 A10 | 2CSR272140R0164 | | 0.240 | 5 |
| | 30 | 6 | 118855 | DS202C M C6 A30 | 2CSR272140R1064 | | 0.240 | 5 |
| | | 10 | 118954 | DS202C M C10 A30 | 2CSR272140R1104 | | 0.240 | 5 |
| | | 13 | 119050 | DS202C M C13 A30 | 2CSR272140R1134 | | 0.240 | 5 |
| | | 16 | 119159 | DS202C M C16 A30 | 2CSR272140R1164 | | 0.240 | 5 |
| | | 20 | 119258 | DS202C M C20 A30 | 2CSR272140R1204 | | 0.240 | 5 |
| | | 25 | 119357 | DS202C M C25 A30 | 2CSR272140R1254 | | 0.240 | 5 |
| | | 32 | 119456 | DS202C M C32 A30 | 2CSR272140R1324 | | 0.240 | 5 |
| | 300 | 6 | 120254 | DS202C M C6 A300 | 2CSR272140R3064 | | 0.240 | 5 |
| | | 10 | 120353 | DS202C M C10 A300 | 2CSR272140R3104 | | 0.240 | 5 |
| | | 13 | 120452 | DS202C M C13 A300 | 2CSR272140R3134 | | 0.240 | 5 |
| | | 16 | 120551 | DS202C M C16 A300 | 2CSR272140R3164 | | 0.240 | 5 |
| | | 20 | 120650 | DS202C M C20 A300 | 2CSR272140R3204 | | 0.240 | 5 |
| | | 25 | 120759 | DS202C M C25 A300 | 2CSR272140R3254 | | 0.240 | 5 |
| | | 32 | 120858 | DS202C M C32 A300 | 2CSR272140R3324 | | 0.240 | 5 |

# RCBOs
# DS202C M series 10000 APR type, B characteristic




DS202C M

## DS202C M APR type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 120957 | DS202C M B6 APR30 | 2CSR272440R1065 | | 0.240 | 5 |
| | | 10 | 121053 | DS202C M B10 APR30 | 2CSR272440R1105 | | 0.240 | 5 |
| | | 13 | 121152 | DS202C M B13 APR30 | 2CSR272440R1135 | | 0.240 | 5 |
| | | 16 | 121251 | DS202C M B16 APR30 | 2CSR272440R1165 | | 0.240 | 5 |
| | | 20 | 121350 | DS202C M B20 APR30 | 2CSR272440R1205 | | 0.240 | 5 |
| | | 25 | 121459 | DS202C M B25 APR30 | 2CSR272440R1255 | | 0.240 | 5 |
| | | 32 | 121558 | DS202C M B32 APR30 | 2CSR272440R1325 | | 0.240 | 5 |
| | 300 | 6 | 124955 | DS202C M B6 APR300 | 2CSR272440R3065 | | 0.240 | 5 |
| | | 10 | 125051 | DS202C M B10 APR300 | 2CSR272440R3105 | | 0.240 | 5 |
| | | 13 | 125150 | DS202C M B13 APR300 | 2CSR272440R3135 | | 0.240 | 5 |
| | | 16 | 125259 | DS202C M B16 APR300 | 2CSR272440R3165 | | 0.240 | 5 |
| | | 20 | 125358 | DS202C M B20 APR300 | 2CSR272440R3205 | | 0.240 | 5 |
| | | 25 | 125457 | DS202C M B25 APR300 | 2CSR272440R3255 | | 0.240 | 5 |
| | | 32 | 125556 | DS202C M B32 APR300 | 2CSR272440R3325 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS202C RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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# RCBOs
## DS202C M series 10000 APR type, C characteristic



DS202C M

### DS202C M APR type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 121657 | DS202C M C6 APR30 | 2CSR272440R1064 | | 0.240 | 5 |
| | | 10 | 121756 | DS202C M C10 APR30 | 2CSR272440R1104 | | 0.240 | 5 |
| | | 13 | 121855 | DS202C M C13 APR30 | 2CSR272440R1134 | | 0.240 | 5 |
| | | 16 | 121954 | DS202C M C16 APR30 | 2CSR272440R1164 | | 0.240 | 5 |
| | | 20 | 122050 | DS202C M C20 APR30 | 2CSR272440R1204 | | 0.240 | 5 |
| | | 25 | 122159 | DS202C M C25 APR30 | 2CSR272440R1254 | | 0.240 | 5 |
| | | 32 | 122258 | DS202C M C32 APR30 | 2CSR272440R1324 | | 0.240 | 5 |

# RCBOs
# DS202C M 110V series 10000 A type, C characteristic






DS202C M 110V

## DS202C M 110V A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications.

**Application: residential, commercial, industrial.**

**Standard: IEC 61009-1; IEC 61009-2-1**

**Icn=10000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 079934 | DS202C M C6 A30 110V | 2CSR272199R1064 | | 0.240 | 5 |
| | | 10 | 079835 | DS202C M C10 A30 110V | 2CSR272199R1104 | | 0.240 | 5 |
| | | 13 | 079330 | DS202C M C13 A30 110V | 2CSR272199R1134 | | 0.240 | 5 |
| | | 16 | 079736 | DS202C M C16 A30 110V | 2CSR272199R1164 | | 0.240 | 5 |
| | | 20 | 079637 | DS202C M C20 A30 110V | 2CSR272199R1204 | | 0.240 | 5 |
| | | 25 | 079538 | DS202C M C25 A30 110V | 2CSR272199R1254 | | 0.240 | 5 |
| | | 32 | 079439 | DS202C M C32 A30 110V | 2CSR272199R1324 | | 0.240 | 5 |

**Where to find more:**
Technical details for DS202C RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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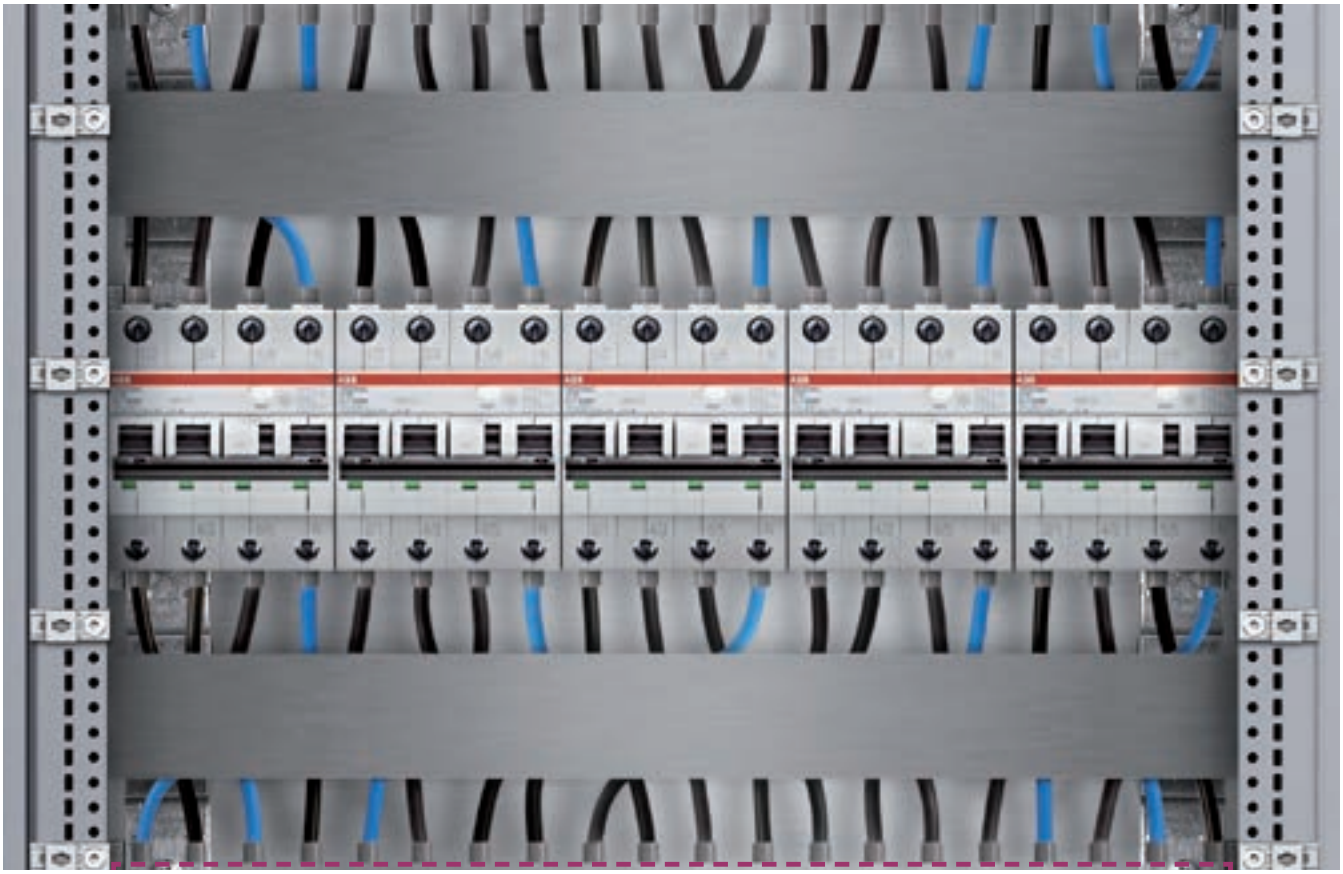
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# Minimum space, maximum protection.
# DS203NC: 3P+NRCBOs in 4 modules.



Designed to be compact, DS203NC SP+N RCBOs are suitable in all those applications where size can be an obstacle. They provide reliable and complete protection from overcurrent and earth fault currents. DS203NC RCBOS are available in two ranges with different breaking capacities to cover all the applications in commercial and industrial installations; DSZOSNC L with 4.5kA and DSZOSNC with 6kA breaking capacity according to IEC/EN 61009.
The range includes types AC, A, APR and S and tripping curves B, C or K. **www.abb.com/lowvoltage**



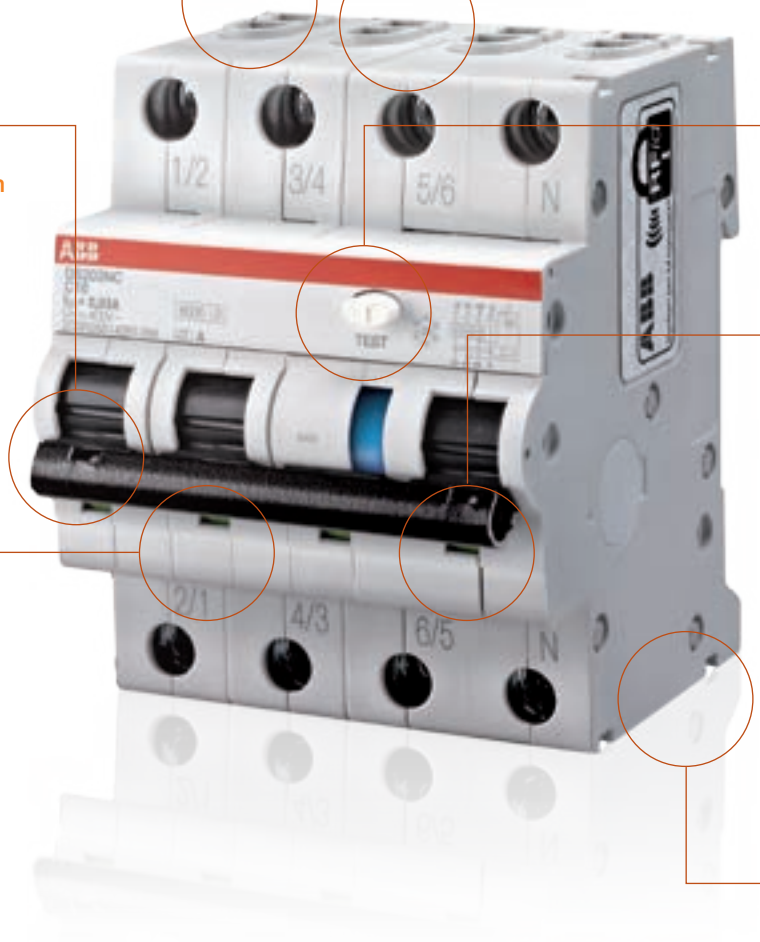


# RCBO DS203NC. The effective choice
## The benefits of a product with the highest quality standards



Compact size for easy installation in small spaces and retrofitting of already existing facilities.

Terminals designed to ease the installation.




Operating toggle can be sealed into on/off position to ensure maintenance in complete safety.

Test pushbutton to verify the correct functioning of the device.

The indication of the status of the contacts is done with a mechanical connection to the mobile contacts and independently from the toggle position.
The contacts position indicator (CPI) allows to exactly know the status of the contacts of the device (green: open contacts, red: closed contacts).

Space for identification labels of the protected line.

Same profile as the System pro *M* compact® range.



### Use with cables and with busbars

Terminals with two slots allow to use different types of conductors: one housing is designed for cables up to 25 $mm^2$, the other for busbars or cables up to 10 $mm^2$.




### RFid

Radio frequency tracking via a radio frequency tag to facilitate logistics and to be assured of the originality of the product.



### Differential trip indicator

In case of tripping due to earth fault, a blue flag appears on the toggle thus immediate showing the cause of trip of the device. This feature helps in troubleshooting on the network and reduces the downtime for maintenance.



### Laser print information

All the necessary technical and installation information are laser printed on the front and side of units ensuring visibility along the time, including order code on front of device for future orders.



### Mounting clip

The mounting clip eases the installation and removal from the DIN rail, even when used in a battery of devices with busbars on bottom terminals (without need of remove other devices).



### Approval stamps

DS203NC residual current circuit breakers with overcurrent protection can meet the different installation habits in the various countries and are approved by the most important certification bodies like IMQ, VDE, EAC, KEMA.

# RCBOs
## DS203NC technical features



| | | | DS203NC L | DS203NC |
|---|---|---|---|---|
| Standards | | | IEC/EN 61009-1; IEC/EN 61009-2-1 | IEC/EN 61009-1; IEC/EN 61009-2-1 |
| Electrical features | | | | |
| Type (wave form of the earth leakage sensed) | | | AC, A, APR | AC, A, APR, S |
| Number of poles | | | 3P+N | 3P+N |
| Rated current In | | A | 6≤ In ≤ 32A | 6≤ In ≤ 32A |
| Rated sensitivity IΔn | | mA | 30-300 | 30-100-300 |
| Rated voltage Ue | | V | 400-415V | 400-415V |
| Insulation voltage Ui | | V | 500 V AC | 500 V AC |
| Overvoltage category | | | III | III |
| Pollution degree | | | 2 | 2 |
| Max operating voltage of circuit test | | V | 440 | 440 |
| Min. operating voltage of circuit test | | V | 30mA: 300; 300mA: 195 | 30mA: 300; 100mA, 300mA: 195 |
| Rated frequency | | Hz | 50/60 | 50/60 |
| Rated breaking capacity acc. to IEC/ EN 61009 | ultimate Icn | A | 4500 | 6000 |
| Rated breaking capacity acc. to IEC/EN 60947-2 | ultimate Icu | kA | 6 | 10 |
| | service Ics | kA | 4,5 | 5 |
| Rated residual breaking capacity IΔm acc. To EN 61009 | | kA | 4,5 | 6 |
| Rated impulse withstand voltage (1.2/50) Uimp | | kV | 4 | 4 |
| Dielectric test voltage at ind. freq. for 1 min. | | kV | 2.5 | 2.5 |
| Thermomagnetic release - characteristic | B: 3 In ≤ Im ≤ 5 In | | | ■ |
| | C: 5 In ≤ Im ≤ 10 In | | ■ | ■ |
| | K: 10 In ≤ Im ≤ 14 In | | | ■ |
| Surge current resistance (wave 8/20) | | A | 250 (3000 for APR versions) | 250 (3000 for APR versions; 5000 for selective type) |
| Mechanical features | | | | |
| Housing | | | Insulation group II, RAL 7035 | Insulation group II, RAL 7035 |
| Toggle | | | black, sealable in ON-OFF positions | black, sealable in ON-OFF positions |
| Flag indicator | | | Differential trip indicator: blue on toggle | Differential trip indicator: blue on toggle |
| Contact position indication | | | CPI on window | CPI on window |
| Electrical life | | operations | 10000 | 10000 |
| Mechanical life | | operations | 20000 | 20000 |
| Protection degree | housing | | IP4X | IP4X |
| | terminals | | IP2X | IP2X |
| Shock resistance acc. to IEC/EN 60068-2-27 | | | 30g - 2 shocks - 13ms | 30g - 2 shocks - 13ms |
| Vibration resistance acc. to IEC/EN 60068-2-6 | | | 0,35mm or 5g - 20 cycles at 5…150…5 Hz without load | 0,35mm or 5g - 20 cycles at 5…150…5 Hz without load |
| Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH | 28 cycles with 55°C/90-96% and 25°C/95-100% | 28 cycles with 55°C/90-96% and 25°C/95-100% |
| Reference temperature for setting of thermal element | | °C | 30 | 30 |
| Ambient temperature (with daily average ≤ +35 °C) | | °C | -25…+55 | -25…+55 |
| Storage temperature | | °C | -40…+70 | -40…+70 |

| | | | DS203NC L | DS203NC |
|---|---|---|---|---|
| Installation | | | | |
| Terminal type | top/ bottom | | failsafe bi-directional cylinder-lift terminal (shock protected) | failsafe bi-directional cylinder-lift terminal (shock protected) |
| Terminal size for cables | top/ bottom | $mm^2$ | 25/25 | 25/25 |
| Terminal size for busbars | top/ bottom | $mm^2$ | 10/10 | 10/10 |
| Tightening torque | top/ bottom | Nm | 2.8 | 2.8 |
| Mounting | | | on DIN rail EN 60715 (35 mm) by means of mounting clip | on DIN rail EN 60715 (35 mm) by means of mounting clip |
| Supply from | | | Top/bottom terminals | Top/bottom terminals |
| Dimensions and weight | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 70.4 | 85 x 69 x 70.4 |
| Weight | | g | 480 | 480 |
| Combination with auxiliary elements | | | | |
| Combinable with accessories and auxiliaries, by means of interface contact SN201-IH | Auxiliary contact | | yes | yes |
| | Signal contact | | yes | yes |
| | Shunt trip | | yes | yes |
| | Undervoltage release | | yes | yes |
| | Overvoltage release | | yes | yes |

# RCBOs
# DS203NC L AC





## DS203NC L - AC type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn = 4500 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 353928 | DS203NC L C6 AC30 | 2CSR246040R1064 | | 0.480 | 1 |
| | | 8 | 343622 | DS203NC L C8 AC30 | 2CSR246040R1084 | | 0.480 | 1 |
| | | 10 | 353829 | DS203NC L C10 AC30 | 2CSR246040R1104 | | 0.480 | 1 |
| | | 13 | 343523 | DS203NC L C13 AC30 | 2CSR246040R1134 | | 0.480 | 1 |
| | | 16 | 353720 | DS203NC L C16 AC30 | 2CSR246040R1164 | | 0.480 | 1 |
| | | 20 | 343424 | DS203NC L C20 AC30 | 2CSR246040R1204 | | 0.480 | 1 |
| | | 25 | 353621 | DS203NC L C25 AC30 | 2CSR246040R1254 | | 0.480 | 1 |
| | | 32 | 343325 | DS203NC L C32 AC30 | 2CSR246040R1324 | | 0.480 | 1 |
| | 300 | 6 | 343226 | DS203NC L C6 AC300 | 2CSR246040R3064 | | 0.480 | 1 |
| | | 8 | 343127 | DS203NC L C8 AC300 | 2CSR246040R3084 | | 0.480 | 1 |
| | | 10 | 343028 | DS203NC L C10 AC300 | 2CSR246040R3104 | | 0.480 | 1 |
| | | 13 | 342922 | DS203NC L C13 AC300 | 2CSR246040R3134 | | 0.480 | 1 |
| | | 16 | 776727 | DS203NC L C16 AC300 | 2CSR246040R3164 | | 0.480 | 1 |
| | | 20 | 342823 | DS203NC L C20 AC300 | 2CSR246040R3204 | | 0.480 | 1 |
| | | 25 | 342724 | DS203NC L C25 AC300 | 2CSR246040R3254 | | 0.480 | 1 |
| | | 32 | 358428 | DS203NC L C32 AC300 | 2CSR246040R3324 | | 0.480 | 1 |

**Where to find more:**
Technical details for DS203NC RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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# RCBOs
# DS203NC L A type



## DS203NC L - A type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=4500 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 354628 | DS203NC L C6 A30 | 2CSR246140R1064 | | 0.480 | 1 |
| | | 8 | 344322 | DS203NC L C8 A30 | 2CSR246140R1084 | | 0.480 | 1 |
| | | 10 | 354529 | DS203NC L C10 A30 | 2CSR246140R1104 | | 0.480 | 1 |
| | | 13 | 344223 | DS203NC L C13 A30 | 2CSR246140R1134 | | 0.480 | 1 |
| | | 16 | 354420 | DS203NC L C16 A30 | 2CSR246140R1164 | | 0.480 | 1 |
| | | 20 | 344124 | DS203NC L C20 A30 | 2CSR246140R1204 | | 0.480 | 1 |
| | | 25 | 354321 | DS203NC L C25 A30 | 2CSR246140R1254 | | 0.480 | 1 |
| | | 32 | 498025 | DS203NC L C32 A30 | 2CSR246140R1324 | | 0.480 | 1 |
| | 300 | 6 | 499220 | DS203NC L C6 A300 | 2CSR246140R3064 | | 0.480 | 1 |
| | | 8 | 344025 | DS203NC L C8 A300 | 2CSR246140R3084 | | 0.480 | 1 |
| | | 10 | 354222 | DS203NC L C10 A300 | 2CSR246140R3104 | | 0.480 | 1 |
| | | 13 | 343929 | DS203NC L C13 A300 | 2CSR246140R3134 | | 0.480 | 1 |
| | | 16 | 354123 | DS203NC L C16 A300 | 2CSR246140R3164 | | 0.480 | 1 |
| | | 20 | 343820 | DS203NC L C20 A300 | 2CSR246140R3204 | | 0.480 | 1 |
| | | 25 | 354024 | DS203NC L C25 A300 | 2CSR246140R3254 | | 0.480 | 1 |
| | | 32 | 343721 | DS203NC L C32 A300 | 2CSR246140R3324 | | 0.480 | 1 |

# RCBOs
# DS203NC L APR type





## DS203NC L - APR type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn =4500 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 079125 | DS203NC L C6 APR30 | 2CSR246440R1064 | | 0.480 | 1 |
| | | 8 | 079026 | DS203NC L C8 APR30 | 2CSR246440R1084 | | 0.480 | 1 |
| | | 10 | 078920 | DS203NC L C10 APR30 | 2CSR246440R1104 | | 0.480 | 1 |
| | | 13 | 078821 | DS203NC L C13 APR30 | 2CSR246440R1134 | | 0.480 | 1 |
| | | 16 | 078722 | DS203NC L C16 APR30 | 2CSR246440R1164 | | 0.480 | 1 |
| | | 20 | 078623 | DS203NC L C20 APR30 | 2CSR246440R1204 | | 0.480 | 1 |
| | | 25 | 078524 | DS203NC L C25 APR30 | 2CSR246440R1254 | | 0.480 | 1 |
| | | 32 | 078425 | DS203NC L C32 APR30 | 2CSR246440R1324 | | 0.480 | 1 |

**Where to find more:**
Technical details for DS203NC RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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# RCBOs
# DS203NC AC ~ type



## DS203NC - AC type - B curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn = 6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 077428 | DS203NC B6 AC30 | 2CSR256040R1065 | | 0.480 | 1 |
| | | 8 | 077329 | DS203NC B8 AC30 | 2CSR256040R1085 | | 0.480 | 1 |
| | | 10 | 077220 | DS203NC B10 AC30 | 2CSR256040R1105 | | 0.480 | 1 |
| | | 13 | 077121 | DS203NC B13 AC30 | 2CSR256040R1135 | | 0.480 | 1 |
| | | 16 | 077022 | DS203NC B16 AC30 | 2CSR256040R1165 | | 0.480 | 1 |
| | | 20 | 076926 | DS203NC B20 AC30 | 2CSR256040R1205 | | 0.480 | 1 |
| | | 25 | 790525 | DS203NC B25 AC30 | 2CSR256040R1255 | | 0.480 | 1 |
| | | 32 | 076827 | DS203NC B32 AC30 | 2CSR256040R1325 | | 0.480 | 1 |
| | 100 | 6 | 076728 | DS203NC B6 AC100 | 2CSR256040R2065 | | 0.480 | 1 |
| | | 8 | 076629 | DS203NC B8 AC100 | 2CSR256040R2085 | | 0.480 | 1 |
| | | 10 | 076520 | DS203NC B10 AC100 | 2CSR256040R2105 | | 0.480 | 1 |
| | | 13 | 076421 | DS203NC B13 AC100 | 2CSR256040R2135 | | 0.480 | 1 |
| | | 16 | 076322 | DS203NC B16 AC100 | 2CSR256040R2165 | | 0.480 | 1 |
| | | 20 | 076223 | DS203NC B20 AC100 | 2CSR256040R2205 | | 0.480 | 1 |
| | | 25 | 076124 | DS203NC B25 AC100 | 2CSR256040R2255 | | 0.480 | 1 |
| | | 32 | 076025 | DS203NC B32 AC100 | 2CSR256040R2325 | | 0.480 | 1 |
| | 300 | 6 | 353423 | DS203NC B6 AC300 | 2CSR256040R3065 | | 0.480 | 1 |
| | | 8 | 353324 | DS203NC B8 AC300 | 2CSR256040R3085 | | 0.480 | 1 |
| | | 10 | 266327 | DS203NC B10 AC300 | 2CSR256040R3105 | | 0.480 | 1 |
| | | 13 | 266228 | DS203NC B13 AC300 | 2CSR256040R3135 | | 0.480 | 1 |
| | | 16 | 266129 | DS203NC B16 AC300 | 2CSR256040R3165 | | 0.480 | 1 |
| | | 20 | 266020 | DS203NC B20 AC300 | 2CSR256040R3205 | | 0.480 | 1 |
| | | 25 | 265924 | DS203NC B25 AC300 | 2CSR256040R3255 | | 0.480 | 1 |
| | | 32 | 790822 | DS203NC B32 AC300 | 2CSR256040R3325 | | 0.480 | 1 |

# RCBOs
# DS203NC AC ∿ type





## DS203NC - AC type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn = 6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 265825 | DS203NC C6 AC30 | 2CSR256040R1064 | | 0.480 | 1 |
| | | 8 | 353225 | DS203NC C8 AC30 | 2CSR256040R1084 | | 0.480 | 1 |
| | | 10 | 518228 | DS203NC C10 AC30 | 2CSR256040R1104 | | 0.480 | 1 |
| | | 13 | 186823 | DS203NC C13 AC30 | 2CSR256040R1134 | | 0.480 | 1 |
| | | 16 | 352228 | DS203NC C16 AC30 | 2CSR256040R1164 | | 0.480 | 1 |
| | | 20 | 186724 | DS203NC C20 AC30 | 2CSR256040R1204 | | 0.480 | 1 |
| | | 25 | 352129 | DS203NC C25 AC30 | 2CSR256040R1254 | | 0.480 | 1 |
| | | 32 | 263920 | DS203NC C32 AC30 | 2CSR256040R1324 | | 0.480 | 1 |
| | 100 | 6 | 263821 | DS203NC C6 AC100 | 2CSR256040R2064 | | 0.480 | 1 |
| | | 8 | 263722 | DS203NC C8 AC100 | 2CSR256040R2084 | | 0.480 | 1 |
| | | 10 | 263623 | DS203NC C10 AC100 | 2CSR256040R2104 | | 0.480 | 1 |
| | | 13 | 263524 | DS203NC C13 AC100 | 2CSR256040R2134 | | 0.480 | 1 |
| | | 16 | 518327 | DS203NC C16 AC100 | 2CSR256040R2164 | | 0.480 | 1 |
| | | 20 | 263425 | DS203NC C20 AC100 | 2CSR256040R2204 | | 0.480 | 1 |
| | | 25 | 186021 | DS203NC C25 AC100 | 2CSR256040R2254 | | 0.480 | 1 |
| | | 32 | 352020 | DS203NC C32 AC100 | 2CSR256040R2324 | | 0.480 | 1 |
| | 300 | 6 | 185925 | DS203NC C6 AC300 | 2CSR256040R3064 | | 0.480 | 1 |
| | | 8 | 185826 | DS203NC C8 AC300 | 2CSR256040R3084 | | 0.480 | 1 |
| | | 10 | 185727 | DS203NC C10 AC300 | 2CSR256040R3104 | | 0.480 | 1 |
| | | 13 | 185628 | DS203NC C13 AC300 | 2CSR256040R3134 | | 0.480 | 1 |
| | | 16 | 185529 | DS203NC C16 AC300 | 2CSR256040R3164 | | 0.480 | 1 |
| | | 20 | 185420 | DS203NC C20 AC300 | 2CSR256040R3204 | | 0.480 | 1 |
| | | 25 | 517825 | DS203NC C25 AC300 | 2CSR256040R3254 | | 0.480 | 1 |
| | | 32 | 180821 | DS203NC C32 AC300 | 2CSR256040R3324 | | 0.480 | 1 |

**Where to find more:**
Technical details for DS203NC RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
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Busbar systems p.4/25

# RCBOs
# DS203NC A type



## DS203NC - A type - B curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 078326 | DS203NC B6 A30 | 2CSR256140R1065 | | 0.480 | 1 |
| | | 8 | 078227 | DS203NC B8 A30 | 2CSR256140R1085 | | 0.480 | 1 |
| | | 10 | 078128 | DS203NC B10 A30 | 2CSR256140R1105 | | 0.480 | 1 |
| | | 13 | 078029 | DS203NC B13 A30 | 2CSR256140R1135 | | 0.480 | 1 |
| | | 16 | 077923 | DS203NC B16 A30 | 2CSR256140R1165 | | 0.480 | 1 |
| | | 20 | 077824 | DS203NC B20 A30 | 2CSR256140R1205 | | 0.480 | 1 |
| | | 25 | 077725 | DS203NC B25 A30 | 2CSR256140R1255 | | 0.480 | 1 |
| | | 32 | 077626 | DS203NC B32 A30 | 2CSR256140R1325 | | 0.480 | 1 |
| | 100 | 6 | 080329 | DS203NC B6 A100 | 2CSR256140R2065 | | 0.480 | 1 |
| | | 8 | 080220 | DS203NC B8 A100 | 2CSR256140R2085 | | 0.480 | 1 |
| | | 10 | 080121 | DS203NC B10 A100 | 2CSR256140R2105 | | 0.480 | 1 |
| | | 13 | 080022 | DS203NC B13 A100 | 2CSR256140R2135 | | 0.480 | 1 |
| | | 16 | 079927 | DS203NC B16 A100 | 2CSR256140R2165 | | 0.480 | 1 |
| | | 20 | 079828 | DS203NC B20 A100 | 2CSR256140R2205 | | 0.480 | 1 |
| | | 25 | 079729 | DS203NC B25 A100 | 2CSR256140R2255 | | 0.480 | 1 |
| | | 32 | 079620 | DS203NC B32 A100 | 2CSR256140R2325 | | 0.480 | 1 |
| | 300 | 6 | 079521 | DS203NC B6 A300 | 2CSR256140R3065 | | 0.480 | 1 |
| | | 8 | 079422 | DS203NC B8 A300 | 2CSR256140R3085 | | 0.480 | 1 |
| | | 10 | 079323 | DS203NC B10 A300 | 2CSR256140R3105 | | 0.480 | 1 |
| | | 13 | 079224 | DS203NC B13 A300 | 2CSR256140R3135 | | 0.480 | 1 |
| | | 16 | 305026 | DS203NC B16 A300 | 2CSR256140R3165 | | 0.480 | 1 |
| | | 20 | 305125 | DS203NC B20 A300 | 2CSR256140R3205 | | 0.480 | 1 |
| | | 25 | 400226 | DS203NC B25 A300 | 2CSR256140R3255 | | 0.480 | 1 |
| | | 32 | 400028 | DS203NC B32 A300 | 2CSR256140R3325 | | 0.480 | 1 |

# RCBOs
# DS203NC A type





## DS203NC - A type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 400127 | DS203NC C6 A30 | 2CSR256140R1064 | | 0.480 | 1 |
| | | 8 | 058823 | DS203NC C8 A30 | 2CSR256140R1084 | | 0.480 | 1 |
| | | 10 | 896524 | DS203NC C10 A30 | 2CSR256140R1104 | | 0.480 | 1 |
| | | 13 | 768227 | DS203NC C13 A30 | 2CSR256140R1134 | | 0.480 | 1 |
| | | 16 | 830924 | DS203NC C16 A30 | 2CSR256140R1164 | | 0.480 | 1 |
| | | 20 | 839927 | DS203NC C20 A30 | 2CSR256140R1204 | | 0.480 | 1 |
| | | 25 | 768524 | DS203NC C25 A30 | 2CSR256140R1254 | | 0.480 | 1 |
| | | 32 | 831228 | DS203NC C32 A30 | 2CSR256140R1324 | | 0.480 | 1 |
| | 100 | 6 | 840220 | DS203NC C6 A100 | 2CSR256140R2064 | | 0.480 | 1 |
| | | 8 | 896425 | DS203NC C8 A100 | 2CSR256140R2084 | | 0.480 | 1 |
| | | 10 | 768128 | DS203NC C10 A100 | 2CSR256140R2104 | | 0.480 | 1 |
| | | 13 | 830825 | DS203NC C13 A100 | 2CSR256140R2134 | | 0.480 | 1 |
| | | 16 | 839828 | DS203NC C16 A100 | 2CSR256140R2164 | | 0.480 | 1 |
| | | 20 | 896722 | DS203NC C20 A100 | 2CSR256140R2204 | | 0.480 | 1 |
| | | 25 | 768425 | DS203NC C25 A100 | 2CSR256140R2254 | | 0.480 | 1 |
| | | 32 | 831129 | DS203NC C32 A100 | 2CSR256140R2324 | | 0.480 | 1 |
| | 300 | 6 | 840121 | DS203NC C6 A300 | 2CSR256140R3064 | | 0.480 | 1 |
| | | 8 | 830726 | DS203NC C8 A300 | 2CSR256140R3084 | | 0.480 | 1 |
| | | 10 | 839729 | DS203NC C10 A300 | 2CSR256140R3104 | | 0.480 | 1 |
| | | 13 | 896623 | DS203NC C13 A300 | 2CSR256140R3134 | | 0.480 | 1 |
| | | 16 | 768326 | DS203NC C16 A300 | 2CSR256140R3164 | | 0.480 | 1 |
| | | 20 | 831020 | DS203NC C20 A300 | 2CSR256140R3204 | | 0.480 | 1 |
| | | 25 | 840022 | DS203NC C25 A300 | 2CSR256140R3254 | | 0.480 | 1 |
| | | 32 | 631620 | DS203NC C32 A300 | 2CSR256140R3324 | | 0.480 | 1 |

**Where to find more:**
Technical details for DS203NC RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25



## DS203NC - A type - K curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 376026 | DS203NC K6 A30 | 2CSR256140R1067 | | 0.480 | 1 |
| | | 8 | 629726 | DS203NC K8 A30 | 2CSR256140R1087 | | 0.480 | 1 |
| | | 10 | 375920 | DS203NC K10 A30 | 2CSR256140R1107 | | 0.480 | 1 |
| | | 13 | 779322 | DS203NC K13 A30 | 2CSR256140R1137 | | 0.480 | 1 |
| | | 16 | 769323 | DS203NC K16 A30 | 2CSR256140R1167 | | 0.480 | 1 |
| | | 20 | 631521 | DS203NC K20 A30 | 2CSR256140R1207 | | 0.480 | 1 |
| | | 25 | 375821 | DS203NC K25 A30 | 2CSR256140R1257 | | 0.480 | 1 |
| | | 32 | 779223 | DS203NC K32 A30 | 2CSR256140R1327 | | 0.480 | 1 |
| | 100 | 6 | 593423 | DS203NC K6 A100 | 2CSR256140R2067 | | 0.480 | 1 |
| | | 8 | 581628 | DS203NC K8 A100 | 2CSR256140R2087 | | 0.480 | 1 |
| | | 10 | 569824 | DS203NC K10 A100 | 2CSR256140R2107 | | 0.480 | 1 |
| | | 13 | 594727 | DS203NC K13 A100 | 2CSR256140R2137 | | 0.480 | 1 |
| | | 16 | 582922 | DS203NC K16 A100 | 2CSR256140R2167 | | 0.480 | 1 |
| | | 20 | 571124 | DS203NC K20 A100 | 2CSR256140R2207 | | 0.480 | 1 |
| | | 25 | 592426 | DS203NC K25 A100 | 2CSR256140R2257 | | 0.480 | 1 |
| | | 32 | 580621 | DS203NC K32 A100 | 2CSR256140R2327 | | 0.480 | 1 |

# RCBOs
# DS203NC APR type



3

## DS203NC - APR type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn =6000 A**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 30 | 6 | 349822 | DS203NC C6 APR30 | 2CSR256440R1064 | | 0.480 | 1 |
| | | 8 | 180722 | DS203NC C8 APR30 | 2CSR256440R1084 | | 0.480 | 1 |
| | | 10 | 349723 | DS203NC C10 APR30 | 2CSR256440R1104 | | 0.480 | 1 |
| | | 13 | 261520 | DS203NC C13 APR30 | 2CSR256440R1134 | | 0.480 | 1 |
| | | 16 | 261421 | DS203NC C16 APR30 | 2CSR256440R1164 | | 0.480 | 1 |
| | | 20 | 261322 | DS203NC C20 APR30 | 2CSR256440R1204 | | 0.480 | 1 |
| | | 25 | 261223 | DS203NC C25 APR30 | 2CSR256440R1254 | | 0.480 | 1 |
| | | 32 | 261124 | DS203NC C32 APR30 | 2CSR256440R1324 | | 0.480 | 1 |
| | 100 | 6 | 274223 | DS203NC C6 APR100 | 2CSR256440R2064 | | 0.480 | 1 |
| | | 8 | 517924 | DS203NC C8 APR100 | 2CSR256440R2084 | | 0.480 | 1 |
| | | 10 | 261025 | DS203NC C10 APR100 | 2CSR256440R2104 | | 0.480 | 1 |
| | | 13 | 180029 | DS203NC C13 APR100 | 2CSR256440R2134 | | 0.480 | 1 |
| | | 16 | 349624 | DS203NC C16 APR100 | 2CSR256440R2164 | | 0.480 | 1 |
| | | 20 | 179924 | DS203NC C20 APR100 | 2CSR256440R2204 | | 0.480 | 1 |
| | | 25 | 179825 | DS203NC C25 APR100 | 2CSR256440R2254 | | 0.480 | 1 |
| | | 32 | 179726 | DS203NC C32 APR100 | 2CSR256440R2324 | | 0.480 | 1 |
| | 300 | 6 | 179627 | DS203NC C6 APR300 | 2CSR256440R3064 | | 0.480 | 1 |
| | | 8 | 179528 | DS203NC C8 APR300 | 2CSR256440R3084 | | 0.480 | 1 |
| | | 10 | 179429 | DS203NC C10 APR300 | 2CSR256440R3104 | | 0.480 | 1 |
| | | 13 | 518020 | DS203NC C13 APR300 | 2CSR256440R3134 | | 0.480 | 1 |
| | | 16 | 176329 | DS203NC C16 APR300 | 2CSR256440R3164 | | 0.480 | 1 |
| | | 20 | 351023 | DS203NC C20 APR300 | 2CSR256440R3204 | | 0.480 | 1 |
| | | 25 | 176220 | DS203NC C25 APR300 | 2CSR256440R3254 | | 0.480 | 1 |
| | | 32 | 350927 | DS203NC C32 APR300 | 2CSR256440R3324 | | 0.480 | 1 |

**Where to find more:**
Technical details for DS203NC RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCBOs
# DS203NC A S type



## DS203NC - A S type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA). Selective type.

**Application: commercial, industrial.**

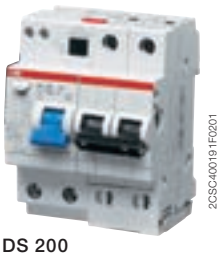
**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=6000 A**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3P+N | 100 | 16 | 021827 | DS203NC C16 A S100 | 2CSR256240R2164 | | 0.480 | 1 |
| | | 20 | 021728 | DS203NC C20 A S100 | 2CSR256240R2204 | | 0.480 | 1 |
| | | 25 | 021629 | DS203NC C25 A S100 | 2CSR256240R2254 | | 0.480 | 1 |
| | | 32 | 021520 | DS203NC C32 A S100 | 2CSR256240R2324 | | 0.480 | 1 |
| | 300 | 16 | 297727 | DS203NC C16 A S300 | 2CSR256240R3164 | | 0.480 | 1 |
| | | 20 | 373223 | DS203NC C20 A S300 | 2CSR256240R3204 | | 0.480 | 1 |
| | | 25 | 373124 | DS203NC C25 A S300 | 2CSR256240R3254 | | 0.480 | 1 |
| | | 32 | 077527 | DS203NC C32 A S300 | 2CSR256240R3324 | | 0.480 | 1 |

# RCBOs
## DS 200 technical features



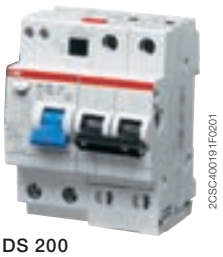

DS 200

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Operating characteristic: type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated sensitivity IΔn | | A |
| | Rated current In | | A |
| | Rated voltage Ue | 2P | V |
| | | 3P, 4P | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Rated breaking capacity acc. to IEC/EN 61009 | ultimate Icn | A |
| | Rated breaking capacity | ultimate Icu | kA |
| | acc. to IEC/EN 60947-2 1P+N @230 VAC, 2P, 3P, 4P @400 VAC | service Ics | kA |
| | Rated residual breaking capacity IΔm | | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Overvoltage category | | |
| | Thermomagnetic release characteristic | B: 3 In ≤ Im ≤ 5 In | |
| | | C: 5 In ≤ Im ≤ 10 In | |
| | | K: 10 In ≤ Im ≤ 14 In | |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | 2P, 3P, 4P | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Reference temperature for setting of thermal element | | °C |
| | Ambient temperature (with daily average ≤ +35 °C) | | °C |
| | Storage temperature | | °C |
| Installation | Terminal type | top | |
| | | bottom 2P | |
| | | 3P/4P In ≤ 40 A | |
| | | 3P/4P 50 A ≤ In ≤ 63 A | |
| | Terminal size top/bottom per cable | 2P | $mm^2$ |
| | | 3P/4P In ≤ 40 A | $mm^2$ |
| | | 3P/4P 50 A ≤ In ≤ 63 A | $mm^2$ |
| | Tightening torque top/bottom | 2P | Nm |
| | | 3P/4P In ≤ 40 A | Nm |
| | | 3P/4P 50 A ≤ In ≤ 63 A | Nm |
| | Mounting | | |
| | Connection | | |

① Available depending on type and characteristic curve. For 2P RCBOs A type B-C curves up to 32 A, refer to DS202C 2 protected poles RCBOs in only two modules
② Prior to connection of aluminium conductors (≥ 4 $mm^2$) ensure that their contact points are cleaned, brushed and coated with grease

| | DS 200 AC | DS 200 A | DS 200 M AC | DS 200 M A |
|---|---|---|---|---|
| | IEC/EN 61009-1; IEC/EN 61009-2-1; IEC/EN 60947-2 | | | |
| | AC | A | AC | A |
| | 2P, 3P, 4P | | | |
| | 0.03 | | | |
| | 6 ≤In ≤ 63 ① | | | |
| | 230-240 | | | |
| | 230/400 - 240/415 | | | |
| | 500 | | | |
| | 254 (440 for 3P and 4P) | | | |
| | 110 (195 for 3P and 4P) | | | |
| | 170 (300 for 3P and 4P) for 30mA | | | |
| | 50…60 | | | |
| | 6000 | 6000 | 10000 | 10000 |
| | 10 | 10 | 15 | 15 |
| | 7.5 | 7.5 | 11.2 | 11.2 |
| | 6 | 6 | 10 | 10 |
| | 6 | | | |
| | 2.5 | | | |
| | III, disconnector abilities | | | |
| | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ |
| | | ■ | | |
| | 250 | | | |
| | black (MCB) sealable in ON-OFF position + blue (RCD) | | | |
| | 10000 | | | |
| | 20000 | | | |
| | IP4X | | | |
| | IP2X | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | |
| | 30 | | | |
| | -25…+55 | | | |
| | -40…+70 | | | |
| | failsafe bidirectional cylinder-lift terminal (shock protected) ② | | | |
| | failsafe bidirectional cylinder-lift terminal (shock protected) ② | | | |
| | cage (shock protected) | | | |
| | failsafe bidirectional cylinder-lift terminal (shock protected) ② | | | |
| | (rigid and flexible) up to 25/25 | | | |
| | (rigid and flexible) up to 25/16 | | | |
| | (rigid and flexible) up to 25/25 | | | |
| | 2.8/2.8 | | | |
| | 2.8/1.2 | | | |
| | 2.8/2.8 | | | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | | | |
| | 715 (35 mm) by means of fast clip devicefrom top and bottom | | | |

# RCBOs
## DS 200 technical features




DS 200

| | | | |
|---|---|---|---|
| Dimensions and weight | Dimensions (H x D x W) | 2P | mm |
| | | 3P In ≤ 40 A | mm |
| | | 4P In ≤ 40 A | mm |
| | | 3P 50 A ≤ In ≤ 63 A | mm |
| | | 4P 50 A ≤ In ≤ 63 A | mm |
| | Weight | 2P | g |
| | | 3P In ≤ 40 A | g |
| | | 4P In ≤ 40 A | g |
| | | 3P 50 A ≤ In ≤ 63 A | g |
| | | 4P 50 A ≤ In ≤ 63 A | g |
| Combination with auxiliary elements | Combinable with: | auxiliary contact | |
| | | signal contact/auxiliary switch | |
| | | shunt trip | |
| | | undervoltage release | |

| | DS 200 AC | DS 200 A | DS 200 M AC | DS 200 M A |
|---|---|---|---|---|
| | 85 x 69 x 70 | | | |
| | 85 x 69 x 87.5 | | | |
| | 85 x 69 x 105 | | | |
| | 85 x 69 x 122.5 | | | |
| | 85 x 69 x 140 | | | |
| | 475 | | | |
| | 625 | | | |
| | 775 | | | |
| | 775 | | | |
| | 925 | | | |
| | yes | | | |
| | yes | | | |
| | yes | | | |
| | yes | | | |

# RCBOs
# DS 200 series 6000 - AC type, B characteristic




DS 202




DS 203




DS 204



## DS 200 AC type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1, IEC/EN 61009-2-1 and IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 863502 | DS202 AC-B6/0.03 | 2CSR252001R1065 | | 0.440 | 1 |
| | | 10 | 863601 | DS202 AC-B10/0.03 | 2CSR252001R1105 | | 0.440 | 1 |
| | | 13 | 863700 | DS202 AC-B13/0.03 | 2CSR252001R1135 | | 0.440 | 1 |
| | | 16 | 863809 | DS202 AC-B16/0.03 | 2CSR252001R1165 | | 0.440 | 1 |
| | | 20 | 863908 | DS202 AC-B20/0.03 | 2CSR252001R1205 | | 0.440 | 1 |
| | | 25 | 864004 | DS202 AC-B25/0.03 | 2CSR252001R1255 | | 0.440 | 1 |
| | | 32 | 864103 | DS202 AC-B32/0.03 | 2CSR252001R1325 | | 0.440 | 1 |
| | | 40 | 864202 | DS202 AC-B40/0.03 | 2CSR252001R1405 | | 0.440 | 1 |
| | | 50 ① | 864301 | DS202 AC-B50/0.03 | 2CSR252001R1505 | | 0.440 | 1 |
| | | 63 ① | 864400 | DS202 AC-B63/0.03 | 2CSR252001R1635 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 865506 | DS203 AC-B6/0.03 | 2CSR253001R1065 | | 0.610 | 1 |
| | | 10 | 865605 | DS203 AC-B10/0.03 | 2CSR253001R1105 | | 0.610 | 1 |
| | | 13 | 865704 | DS203 AC-B13/0.03 | 2CSR253001R1135 | | 0.610 | 1 |
| | | 16 | 865803 | DS203 AC-B16/0.03 | 2CSR253001R1165 | | 0.610 | 1 |
| | | 20 | 865902 | DS203 AC-B20/0.03 | 2CSR253001R1205 | | 0.610 | 1 |
| | | 25 | 866008 | DS203 AC-B25/0.03 | 2CSR253001R1255 | | 0.610 | 1 |
| | | 32 | 866107 | DS203 AC-B32/0.03 | 2CSR253001R1325 | | 0.610 | 1 |
| | | 40 | 866206 | DS203 AC-B40/0.03 | 2CSR253001R1405 | | 0.610 | 1 |
| | | 50 ① | 866305 | DS203 AC-B50/0.03 | 2CSR253001R1505 | | 0.650 | 1 |
| | | 63 ① | 866404 | DS203 AC-B63/0.03 | 2CSR253001R1635 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 867500 | DS204 AC-B6/0.03 | 2CSR254001R1065 | | 0.780 | 1 |
| | | 10 | 867609 | DS204 AC-B10/0.03 | 2CSR254001R1105 | | 0.780 | 1 |
| | | 13 | 867708 | DS204 AC-B13/0.03 | 2CSR254001R1135 | | 0.780 | 1 |
| | | 16 | 867807 | DS204 AC-B16/0.03 | 2CSR254001R1165 | | 0.780 | 1 |
| | | 20 | 867906 | DS204 AC-B20/0.03 | 2CSR254001R1205 | | 0.780 | 1 |
| | | 25 | 868002 | DS204 AC-B25/0.03 | 2CSR254001R1255 | | 0.780 | 1 |
| | | 32 | 868101 | DS204 AC-B32/0.03 | 2CSR254001R1325 | | 0.780 | 1 |
| | | 40 | 868200 | DS204 AC-B40/0.03 | 2CSR254001R1405 | | 0.780 | 1 |
| | | 50 ① | 868309 | DS204 AC-B50/0.03 | 2CSR254001R1505 | | 0.825 | 1 |
| | | 63 ① | 868408 | DS204 AC-B63/0.03 | 2CSR254001R1635 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
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Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCBOs
# DS 200 series 6000 - AC type, C characteristic




DS 202




DS 203




DS 204

## DS 200 AC type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2**

**Icn=6 kA**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 869504 | DS202 AC-C6/0.03 | 2CSR252001R1064 | | 0.440 | 1 |
| | | 10 | 869603 | DS202 AC-C10/0.03 | 2CSR252001R1104 | | 0.440 | 1 |
| | | 13 | 869702 | DS202 AC-C13/0.03 | 2CSR252001R1134 | | 0.440 | 1 |
| | | 16 | 869801 | DS202 AC-C16/0.03 | 2CSR252001R1164 | | 0.440 | 1 |
| | | 20 | 869900 | DS202 AC-C20/0.03 | 2CSR252001R1204 | | 0.440 | 1 |
| | | 25 | 870005 | DS202 AC-C25/0.03 | 2CSR252001R1254 | | 0.440 | 1 |
| | | 32 | 870104 | DS202 AC-C32/0.03 | 2CSR252001R1324 | | 0.440 | 1 |
| | | 40 | 870203 | DS202 AC-C40/0.03 | 2CSR252001R1404 | | 0.440 | 1 |
| | | 50 ① | 870302 | DS202 AC-C50/0.03 | 2CSR252001R1504 | | 0.440 | 1 |
| | | 63 ① | 870401 | DS202 AC-C63/0.03 | 2CSR252001R1634 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 871507 | DS203 AC-C6/0.03 | 2CSR253001R1064 | | 0.610 | 1 |
| | | 10 | 871606 | DS203 AC-C10/0.03 | 2CSR253001R1104 | | 0.610 | 1 |
| | | 13 | 871705 | DS203 AC-C13/0.03 | 2CSR253001R1134 | | 0.610 | 1 |
| | | 16 | 871804 | DS203 AC-C16/0.03 | 2CSR253001R1164 | | 0.610 | 1 |
| | | 20 | 871903 | DS203 AC-C20/0.03 | 2CSR253001R1204 | | 0.610 | 1 |
| | | 25 | 872009 | DS203 AC-C25/0.03 | 2CSR253001R1254 | | 0.610 | 1 |
| | | 32 | 872108 | DS203 AC-C32/0.03 | 2CSR253001R1324 | | 0.610 | 1 |
| | | 40 | 872207 | DS203 AC-C40/0.03 | 2CSR253001R1404 | | 0.610 | 1 |
| | | 50 ① | 872306 | DS203 AC-C50/0.03 | 2CSR253001R1504 | | 0.650 | 1 |
| | | 63 ① | 872405 | DS203 AC-C63/0.03 | 2CSR253001R1634 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 873501 | DS204 AC-C6/0.03 | 2CSR254001R1064 | | 0.780 | 1 |
| | | 10 | 873600 | DS204 AC-C10/0.03 | 2CSR254001R1104 | | 0.780 | 1 |
| | | 13 | 873709 | DS204 AC-C13/0.03 | 2CSR254001R1134 | | 0.780 | 1 |
| | | 16 | 873808 | DS204 AC-C16/0.03 | 2CSR254001R1164 | | 0.780 | 1 |
| | | 20 | 873907 | DS204 AC-C20/0.03 | 2CSR254001R1204 | | 0.780 | 1 |
| | | 25 | 874003 | DS204 AC-C25/0.03 | 2CSR254001R1254 | | 0.780 | 1 |
| | | 32 | 874102 | DS204 AC-C32/0.03 | 2CSR254001R1324 | | 0.780 | 1 |
| | | 40 | 874201 | DS204 AC-C40/0.03 | 2CSR254001R1404 | | 0.780 | 1 |
| | | 50 ① | 874300 | DS204 AC-C50/0.03 | 2CSR254001R1504 | | 0.825 | 1 |
| | | 63 ① | 874409 | DS204 AC-C63/0.03 | 2CSR254001R1634 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

# RCBOs
# DS 200 series 6000 - A type, B characteristic






DS 202




DS 203




DS 204

## DS 200 A type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 40 | 858201 | DS202 A-B40/0.03 | 2CSR252101R1405 | | 0.440 | 1 |
| | | 50 ① | 858300 | DS202 A-B50/0.03 | 2CSR252101R1505 | | 0.440 | 1 |
| | | 63 ① | 858409 | DS202 A-B63/0.03 | 2CSR252101R1635 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 858508 | DS203 A-B6/0.03 | 2CSR253101R1065 | | 0.610 | 1 |
| | | 10 | 858607 | DS203 A-B10/0.03 | 2CSR253101R1105 | | 0.610 | 1 |
| | | 13 | 858706 | DS203 A-B13/0.03 | 2CSR253101R1135 | | 0.610 | 1 |
| | | 16 | 858805 | DS203 A-B16/0.03 | 2CSR253101R1165 | | 0.610 | 1 |
| | | 20 | 858904 | DS203 A-B20/0.03 | 2CSR253101R1205 | | 0.610 | 1 |
| | | 25 | 859000 | DS203 A-B25/0.03 | 2CSR253101R1255 | | 0.610 | 1 |
| | | 32 | 859109 | DS203 A-B32/0.03 | 2CSR253101R1325 | | 0.610 | 1 |
| | | 40 | 859208 | DS203 A-B40/0.03 | 2CSR253101R1405 | | 0.610 | 1 |
| | | 50 ① | 859307 | DS203 A-B50/0.03 | 2CSR253101R1505 | | 0.650 | 1 |
| | | 63 ① | 859406 | DS203 A-B63/0.03 | 2CSR253101R1635 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 859505 | DS204 A-B6/0.03 | 2CSR254101R1065 | | 0.780 | 1 |
| | | 10 | 859604 | DS204 A-B10/0.03 | 2CSR254101R1105 | | 0.780 | 1 |
| | | 13 | 859703 | DS204 A-B13/0.03 | 2CSR254101R1135 | | 0.780 | 1 |
| | | 16 | 859802 | DS204 A-B16/0.03 | 2CSR254101R1165 | | 0.780 | 1 |
| | | 20 | 859901 | DS204 A-B20/0.03 | 2CSR254101R1205 | | 0.780 | 1 |
| | | 25 | 860006 | DS204 A-B25/0.03 | 2CSR254101R1255 | | 0.780 | 1 |
| | | 32 | 860105 | DS204 A-B32/0.03 | 2CSR254101R1325 | | 0.780 | 1 |
| | | 40 | 860204 | DS204 A-B40/0.03 | 2CSR254101R1405 | | 0.780 | 1 |
| | | 50 ① | 860303 | DS204 A-B50/0.03 | 2CSR254101R1505 | | 0.825 | 1 |
| | | 63 ① | 860402 | DS204 A-B63/0.03 | 2CSR254101R1635 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

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Busbar systems p.4/25

# RCBOs
# DS 200 series 6000 - A type, C characteristic




DS 202




DS 203




DS 204

## DS 200 A type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2**

**Icn=6 kA**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 40 | 861201 | DS202 A-C40/0.03 | 2CSR252101R1404 | | 0.440 | 1 |
| | | 50 ① | 861300 | DS202 A-C50/0.03 | 2CSR252101R1504 | | 0.440 | 1 |
| | | 63 ① | 861409 | DS202 A-C63/0.03 | 2CSR252101R1634 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 861508 | DS203 A-C6/0.03 | 2CSR253101R1064 | | 0.610 | 1 |
| | | 10 | 861607 | DS203 A-C10/0.03 | 2CSR253101R1104 | | 0.610 | 1 |
| | | 13 | 861706 | DS203 A-C13/0.03 | 2CSR253101R1134 | | 0.610 | 1 |
| | | 16 | 861805 | DS203 A-C16/0.03 | 2CSR253101R1164 | | 0.610 | 1 |
| | | 20 | 861904 | DS203 A-C20/0.03 | 2CSR253101R1204 | | 0.610 | 1 |
| | | 25 | 862000 | DS203 A-C25/0.03 | 2CSR253101R1254 | | 0.610 | 1 |
| | | 32 | 862109 | DS203 A-C32/0.03 | 2CSR253101R1324 | | 0.610 | 1 |
| | | 40 | 862208 | DS203 A-C40/0.03 | 2CSR253101R1404 | | 0.610 | 1 |
| | | 50 ① | 862307 | DS203 A-C50/0.03 | 2CSR253101R1504 | | 0.650 | 1 |
| | | 63 ① | 862406 | DS203 A-C63/0.03 | 2CSR253101R1634 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 862505 | DS204 A-C6/0.03 | 2CSR254101R1064 | | 0.780 | 1 |
| | | 10 | 862604 | DS204 A-C10/0.03 | 2CSR254101R1104 | | 0.780 | 1 |
| | | 13 | 862703 | DS204 A-C13/0.03 | 2CSR254101R1134 | | 0.780 | 1 |
| | | 16 | 862802 | DS204 A-C16/0.03 | 2CSR254101R1164 | | 0.780 | 1 |
| | | 20 | 862901 | DS204 A-C20/0.03 | 2CSR254101R1204 | | 0.780 | 1 |
| | | 25 | 863007 | DS204 A-C25/0.03 | 2CSR254101R1254 | | 0.780 | 1 |
| | | 32 | 863106 | DS204 A-C32/0.03 | 2CSR254101R1324 | | 0.780 | 1 |
| | | 40 | 863205 | DS204 A-C40/0.03 | 2CSR254101R1404 | | 0.780 | 1 |
| | | 50 ① | 863304 | DS204 A-C50/0.03 | 2CSR254101R1504 | | 0.825 | 1 |
| | | 63 ① | 863403 | DS204 A-C63/0.03 | 2CSR254101R1634 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

# RCBOs
# DS 200 series 6000 - A type, K characteristic






DS 202




DS 203




DS 204

## DS 200 A type, K characteristic

Function: protection and control against overloads and short-circuit in systems where motors, transformers and auxiliary circuits are present. Advantages: no unwanted release in case of currents peak up to 8 x In, according to the series; thanks to the high sensibility bimetal, the K curve switches offer protection of the sensible elements from overcurrents; they also allow the best protection of cables and lines.

**Application: commercial, industrial.**

**Standard: IEC/EN 60947-2**

**Icn=6 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 930303 | DS202 A-K6/0.03 | 2CSR252101R1067 | | 0.475 | 1 |
| | | 10 | 900702 | DS202 A-K10/0.03 | 2CSR252101R1107 | | 0.475 | 1 |
| | | 13 | 930402 | DS202 A-K13/0.03 | 2CSR252101R1137 | | 0.475 | 1 |
| | | 16 | 930501 | DS202 A-K16/0.03 | 2CSR252101R1167 | | 0.475 | 1 |
| | | 20 | 930600 | DS202 A-K20/0.03 | 2CSR252101R1207 | | 0.475 | 1 |
| | | 25 | 930709 | DS202 A-K25/0.03 | 2CSR252101R1257 | | 0.475 | 1 |
| | | 32 | 930808 | DS202 A-K32/0.03 | 2CSR252101R1327 | | 0.475 | 1 |
| | | 40 | 930907 | DS202 A-K40/0.03 | 2CSR252101R1407 | | 0.475 | 1 |
| | | 50 ① | 931003 | DS202 A-K50/0.03 | 2CSR252101R1507 | | 0.475 | 1 |
| | | 63 ① | 931102 | DS202 A-K63/0.03 | 2CSR252101R1637 | | 0.475 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 931201 | DS204 A-K6/0.03 | 2CSR254101R1067 | | 0.775 | 1 |
| | | 10 | 931300 | DS204 A-K10/0.03 | 2CSR254101R1107 | | 0.775 | 1 |
| | | 13 | 931409 | DS204 A-K13/0.03 | 2CSR254101R1137 | | 0.775 | 1 |
| | | 16 | 931508 | DS204 A-K16/0.03 | 2CSR254101R1167 | | 0.775 | 1 |
| | | 20 | 931607 | DS204 A-K20/0.03 | 2CSR254101R1207 | | 0.775 | 1 |
| | | 25 | 931706 | DS204 A-K25/0.03 | 2CSR254101R1257 | | 0.775 | 1 |
| | | 32 | 931805 | DS204 A-K32/0.03 | 2CSR254101R1327 | | 0.775 | 1 |
| | | 40 | 931904 | DS204 A-K40/0.03 | 2CSR254101R1407 | | 0.775 | 1 |
| | | 50 ① | 932000 | DS204 A-K50/0.03 | 2CSR254101R1507 | | 0.775 | 1 |
| | | 63 ① | 932109 | DS204 A-K63/0.03 | 2CSR254101R1637 | | 0.775 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

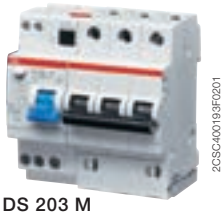
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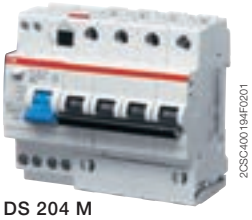
# RCBOs
# DS 200 M series 10000 - AC type, B characteristic




DS 202 M




DS 203 M




DS 204 M



## DS 200 M AC type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 932208 | DS202 M AC-B6/0.03 | 2CSR272001R1065 | | 0.440 | 1 |
| | | 10 | 932307 | DS202 M AC-B10/0.03 | 2CSR272001R1105 | | 0.440 | 1 |
| | | 13 | 932406 | DS202 M AC-B13/0.03 | 2CSR272001R1135 | | 0.440 | 1 |
| | | 16 | 932505 | DS202 M AC-B16/0.03 | 2CSR272001R1165 | | 0.440 | 1 |
| | | 20 | 932604 | DS202 M AC-B20/0.03 | 2CSR272001R1205 | | 0.440 | 1 |
| | | 25 | 932703 | DS202 M AC-B25/0.03 | 2CSR272001R1255 | | 0.440 | 1 |
| | | 32 | 932802 | DS202 M AC-B32/0.03 | 2CSR272001R1325 | | 0.440 | 1 |
| | | 40 | 932901 | DS202 M AC-B40/0.03 | 2CSR272001R1405 | | 0.440 | 1 |
| | | 50 ① | 933007 | DS202 M AC-B50/0.03 | 2CSR272001R1505 | | 0.440 | 1 |
| | | 63 ① | 933106 | DS202 M AC-B63/0.03 | 2CSR272001R1635 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 933205 | DS203 M AC-B6/0.03 | 2CSR273001R1065 | | 0.610 | 1 |
| | | 10 | 933304 | DS203 M AC-B10/0.03 | 2CSR273001R1105 | | 0.610 | 1 |
| | | 13 | 933403 | DS203 M AC-B13/0.03 | 2CSR273001R1135 | | 0.610 | 1 |
| | | 16 | 933502 | DS203 M AC-B16/0.03 | 2CSR273001R1165 | | 0.610 | 1 |
| | | 20 | 933601 | DS203 M AC-B20/0.03 | 2CSR273001R1205 | | 0.610 | 1 |
| | | 25 | 933700 | DS203 M AC-B25/0.03 | 2CSR273001R1255 | | 0.610 | 1 |
| | | 32 | 933809 | DS203 M AC-B32/0.03 | 2CSR273001R1325 | | 0.610 | 1 |
| | | 40 | 933908 | DS203 M AC-B40/0.03 | 2CSR273001R1405 | | 0.610 | 1 |
| | | 50 ① | 934004 | DS203 M AC-B50/0.03 | 2CSR273001R1505 | | 0.650 | 1 |
| | | 63 ① | 934103 | DS203 M AC-B63/0.03 | 2CSR273001R1635 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 934202 | DS204 M AC-B6/0.03 | 2CSR274001R1065 | | 0.780 | 1 |
| | | 10 | 934301 | DS204 M AC-B10/0.03 | 2CSR274001R1105 | | 0.780 | 1 |
| | | 13 | 934400 | DS204 M AC-B13/0.03 | 2CSR274001R1135 | | 0.780 | 1 |
| | | 16 | 934509 | DS204 M AC-B16/0.03 | 2CSR274001R1165 | | 0.780 | 1 |
| | | 20 | 934608 | DS204 M AC-B20/0.03 | 2CSR274001R1205 | | 0.780 | 1 |
| | | 25 | 934707 | DS204 M AC-B25/0.03 | 2CSR274001R1255 | | 0.780 | 1 |
| | | 32 | 934806 | DS204 M AC-B32/0.03 | 2CSR274001R1325 | | 0.780 | 1 |
| | | 40 | 934905 | DS204 M AC-B40/0.03 | 2CSR274001R1405 | | 0.780 | 1 |
| | | 50 ① | 935001 | DS204 M AC-B50/0.03 | 2CSR274001R1505 | | 0.825 | 1 |
| | | 63 ① | 935100 | DS204 M AC-B63/0.03 | 2CSR274001R1635 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 M RCCBs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

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# RCBOs
# DS 200 M series 10000 - AC ∿ type, C characteristic

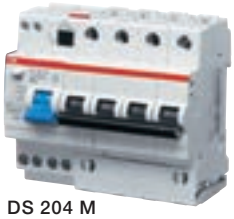



DS 202 M






DS 203 M




DS 204 M

## DS 200 M AC type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 6 | 851509 | DS202 M AC-C6/0.03 | 2CSR272001R1064 | | 0.440 | 1 |
| | | 10 | 851608 | DS202 M AC-C10/0.03 | 2CSR272001R1104 | | 0.440 | 1 |
| | | 13 | 851707 | DS202 M AC-C13/0.03 | 2CSR272001R1134 | | 0.440 | 1 |
| | | 16 | 851806 | DS202 M AC-C16/0.03 | 2CSR272001R1164 | | 0.440 | 1 |
| | | 20 | 851905 | DS202 M AC-C20/0.03 | 2CSR272001R1204 | | 0.440 | 1 |
| | | 25 | 852001 | DS202 M AC-C25/0.03 | 2CSR272001R1254 | | 0.440 | 1 |
| | | 32 | 852100 | DS202 M AC-C32/0.03 | 2CSR272001R1324 | | 0.440 | 1 |
| | | 40 | 852209 | DS202 M AC-C40/0.03 | 2CSR272001R1404 | | 0.440 | 1 |
| | | 50 ① | 852308 | DS202 M AC-C50/0.03 | 2CSR272001R1504 | | 0.440 | 1 |
| | | 63 ① | 852407 | DS202 M AC-C63/0.03 | 2CSR272001R1634 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 852506 | DS203 M AC-C6/0.03 | 2CSR273001R1064 | | 0.610 | 1 |
| | | 10 | 852605 | DS203 M AC-C10/0.03 | 2CSR273001R1104 | | 0.610 | 1 |
| | | 13 | 852704 | DS203 M AC-C13/0.03 | 2CSR273001R1134 | | 0.610 | 1 |
| | | 16 | 852803 | DS203 M AC-C16/0.03 | 2CSR273001R1164 | | 0.610 | 1 |
| | | 20 | 852902 | DS203 M AC-C20/0.03 | 2CSR273001R1204 | | 0.610 | 1 |
| | | 25 | 853008 | DS203 M AC-C25/0.03 | 2CSR273001R1254 | | 0.610 | 1 |
| | | 32 | 853107 | DS203 M AC-C32/0.03 | 2CSR273001R1324 | | 0.610 | 1 |
| | | 40 | 853206 | DS203 M AC-C40/0.03 | 2CSR273001R1404 | | 0.610 | 1 |
| | | 50 ① | 853305 | DS203 M AC-C50/0.03 | 2CSR273001R1504 | | 0.650 | 1 |
| | | 63 ① | 853404 | DS203 M AC-C63/0.03 | 2CSR273001R1634 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 853503 | DS204 M AC-C6/0.03 | 2CSR274001R1064 | | 0.780 | 1 |
| | | 10 | 853602 | DS204 M AC-C10/0.03 | 2CSR274001R1104 | | 0.780 | 1 |
| | | 13 | 853701 | DS204 M AC-C13/0.03 | 2CSR274001R1134 | | 0.780 | 1 |
| | | 16 | 853800 | DS204 M AC-C16/0.03 | 2CSR274001R1164 | | 0.780 | 1 |
| | | 20 | 853909 | DS204 M AC-C20/0.03 | 2CSR274001R1204 | | 0.780 | 1 |
| | | 25 | 854005 | DS204 M AC-C25/0.03 | 2CSR274001R1254 | | 0.780 | 1 |
| | | 32 | 854104 | DS204 M AC-C32/0.03 | 2CSR274001R1324 | | 0.780 | 1 |
| | | 40 | 854203 | DS204 M AC-C40/0.03 | 2CSR274001R1404 | | 0.780 | 1 |
| | | 50 ① | 854302 | DS204 M AC-C50/0.03 | 2CSR274001R1504 | | 0.825 | 1 |
| | | 63 ① | 854401 | DS204 M AC-C63/0.03 | 2CSR274001R1634 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 M RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# RCBOs
## DS 200 M series 10000 - A type, B characteristic



DS 202 M



DS 203 M



DS 204 M

### DS 200 M A type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10 kA**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 40 | 846208 | DS202 M A-B40/0.03 | 2CSR272101R1405 | | 0.440 | 1 |
| | | 50 ① | 846307 | DS202 M A-B50/0.03 | 2CSR272101R1505 | | 0.440 | 1 |
| | | 63 ① | 846406 | DS202 M A-B63/0.03 | 2CSR272101R1635 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 846505 | DS203 M A-B6/0.03 | 2CSR273101R1065 | | 0.610 | 1 |
| | | 10 | 846604 | DS203 M A-B10/0.03 | 2CSR273101R1105 | | 0.610 | 1 |
| | | 13 | 846703 | DS203 M A-B13/0.03 | 2CSR273101R1135 | | 0.610 | 1 |
| | | 16 | 846802 | DS203 M A-B16/0.03 | 2CSR273101R1165 | | 0.610 | 1 |
| | | 20 | 846901 | DS203 M A-B20/0.03 | 2CSR273101R1205 | | 0.610 | 1 |
| | | 25 | 847007 | DS203 M A-B25/0.03 | 2CSR273101R1255 | | 0.610 | 1 |
| | | 32 | 847106 | DS203 M A-B32/0.03 | 2CSR273101R1325 | | 0.610 | 1 |
| | | 40 | 847205 | DS203 M A-B40/0.03 | 2CSR273101R1405 | | 0.610 | 1 |
| | | 50 ① | 847304 | DS203 M A-B50/0.03 | 2CSR273101R1505 | | 0.650 | 1 |
| | | 63 ① | 847403 | DS203 M A-B63/0.03 | 2CSR273101R1635 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 847502 | DS204 M A-B6/0.03 | 2CSR274101R1065 | | 0.780 | 1 |
| | | 10 | 847601 | DS204 M A-B10/0.03 | 2CSR274101R1105 | | 0.780 | 1 |
| | | 13 | 847700 | DS204 M A-B13/0.03 | 2CSR274101R1135 | | 0.780 | 1 |
| | | 16 | 847809 | DS204 M A-B16/0.03 | 2CSR274101R1165 | | 0.780 | 1 |
| | | 20 | 847908 | DS204 M A-B20/0.03 | 2CSR274101R1205 | | 0.780 | 1 |
| | | 25 | 848004 | DS204 M A-B25/0.03 | 2CSR274101R1255 | | 0.780 | 1 |
| | | 32 | 848103 | DS204 M A-B32/0.03 | 2CSR274101R1325 | | 0.780 | 1 |
| | | 40 | 848202 | DS204 M A-B40/0.03 | 2CSR274101R1405 | | 0.780 | 1 |
| | | 50 ① | 848301 | DS204 M A-B50/0.03 | 2CSR274101R1505 | | 0.825 | 1 |
| | | 63 ① | 848400 | DS204 M A-B63/0.03 | 2CSR274101R1635 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

# RCBOs
## DS 200 M series 10000 - A type, C characteristic

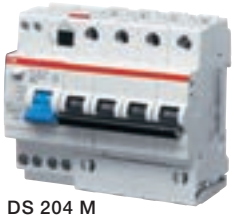





DS 202 M




DS 203 M




DS 204 M

### DS 200 M A type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61009-1; IEC/EN 61009-2-1**

**Icn=10 kA**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 40 | 849209 | DS202 M A-C40/0.03 | 2CSR272101R1404 | | 0.440 | 1 |
| | | 50 ① | 849308 | DS202 M A-C50/0.03 | 2CSR272101R1504 | | 0.440 | 1 |
| | | 63 ① | 849407 | DS202 M A-C63/0.03 | 2CSR272101R1634 | | 0.440 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 6 | 849506 | DS203 M A-C6/0.03 | 2CSR273101R1064 | | 0.610 | 1 |
| | | 10 | 849605 | DS203 M A-C10/0.03 | 2CSR273101R1104 | | 0.610 | 1 |
| | | 13 | 849704 | DS203 M A-C13/0.03 | 2CSR273101R1134 | | 0.610 | 1 |
| | | 16 | 849803 | DS203 M A-C16/0.03 | 2CSR273101R1164 | | 0.610 | 1 |
| | | 20 | 849902 | DS203 M A-C20/0.03 | 2CSR273101R1204 | | 0.610 | 1 |
| | | 25 | 850007 | DS203 M A-C25/0.03 | 2CSR273101R1254 | | 0.610 | 1 |
| | | 32 | 850106 | DS203 M A-C32/0.03 | 2CSR273101R1324 | | 0.610 | 1 |
| | | 40 | 850205 | DS203 M A-C40/0.03 | 2CSR273101R1404 | | 0.610 | 1 |
| | | 50 ① | 850304 | DS203 M A-C50/0.03 | 2CSR273101R1504 | | 0.650 | 1 |
| | | 63 ① | 850403 | DS203 M A-C63/0.03 | 2CSR273101R1634 | | 0.650 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 850502 | DS204 M A-C6/0.03 | 2CSR274101R1064 | | 0.780 | 1 |
| | | 10 | 850601 | DS204 M A-C10/0.03 | 2CSR274101R1104 | | 0.780 | 1 |
| | | 13 | 850700 | DS204 M A-C13/0.03 | 2CSR274101R1134 | | 0.780 | 1 |
| | | 16 | 850809 | DS204 M A-C16/0.03 | 2CSR274101R1164 | | 0.780 | 1 |
| | | 20 | 850908 | DS204 M A-C20/0.03 | 2CSR274101R1204 | | 0.780 | 1 |
| | | 25 | 851004 | DS204 M A-C25/0.03 | 2CSR274101R1254 | | 0.780 | 1 |
| | | 32 | 851103 | DS204 M A-C32/0.03 | 2CSR274101R1324 | | 0.780 | 1 |
| | | 40 | 851202 | DS204 M A-C40/0.03 | 2CSR274101R1404 | | 0.780 | 1 |
| | | 50 ① | 851301 | DS204 M A-C50/0.03 | 2CSR274101R1504 | | 0.825 | 1 |
| | | 63 ① | 851400 | DS204 M A-C63/0.03 | 2CSR274101R1634 | | 0.825 | 1 |

① provided with additional terminals for remote tripping

**Where to find more:**
Technical details for DS 200 M RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals p.15/162

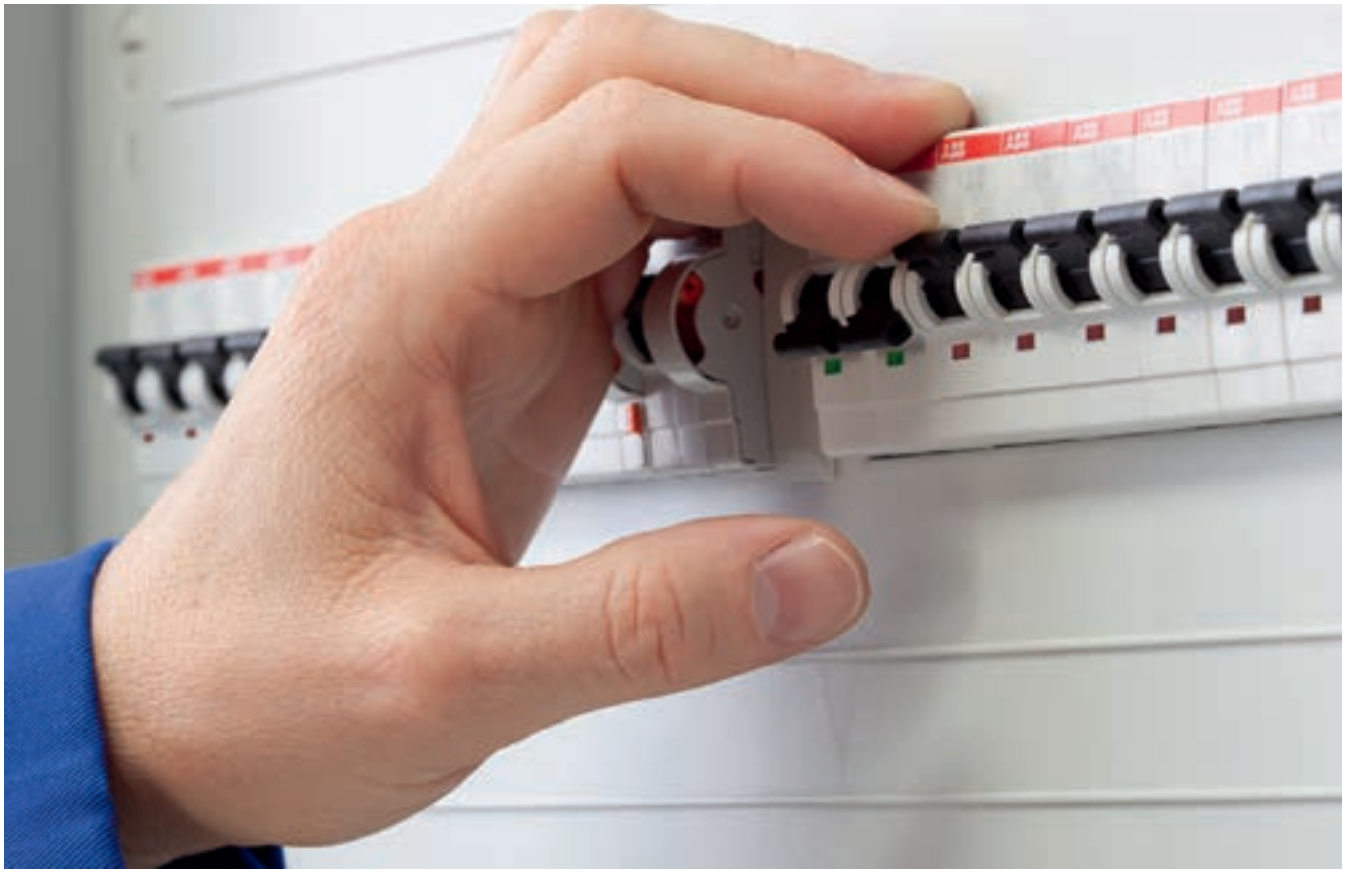
**Maybe you are also interested in:**
Auxiliary elements for RCDs p.4/2
Accessories for RCDs p.4/20 - 4/40
Busbar systems p.4/25

# Is it possible to switch off AC/DC? Certainly.



The S 200 M UC impresses with its performance range and the accordingly large amount of approvals. Its high inbuilt short circuit breaking capacity across the entire model line, its flexible application for both direct and alternating currents and its approval and compliance in accordance with all major international and local standards make it truly unique. The miniature circuit breaker is a valuable addition to the existing System pro *M* compact® range which allows all known components to be combined effortlessly with the new model line. Whether warehousing and project engineering, planning and installation or maintaining your equipment, the S 200 M UC is a simple and flexible solution.
For more information, see **www.abb.com**





# RCD-blocks
## DDA 800 technical features




**DDA 800**

3

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated current In | | A |
| | Rated sensitivity IΔn | | A |
| | Rated voltage Ue | | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Rated breaking capacity (Icn) acc. to IEC /EN 60947-2 | | A |
| | Rated residual breaking capacity IΔm | with S 800 C | kA |
| | | with S 800 N | kA |
| | | with S 800 S | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Ambient temperature (with daily average ≤ +35 °C) | | °C |
| | Storage temperature | | °C |
| | Terminal size for cables | flexible | $mm^2$ |
| | | rigid | $mm^2$ |
| | Tightening torque | | Nm |
| | Mounting | | |
| Dimensions and weight | Dimensions (H x D x W) | 2P | mm |
| | | 3P | mm |
| | | 4P | mm |
| | Weight | 2P | g |
| | | 3P | g |
| | | 4P | g |
| Combination with MCBs | Combinable with: | S 800 N | |
| | | S 800 S | |

* only on 3P and 4P versions

| | DDA 800 AC | DDA 800 A | | DDA 800 A AP-R | DDA 800 A S | |
|---|---|---|---|---|---|---|
| | IEC/EN 60947-2 Ann. B | | | | | |
| | AC | A | | A | A | |
| | 2P, 3P, 4P | | | | | |
| | 63 | 63 | 100 | 63-100 | 63 | 100 |
| | 0.03-0.3 | 0.03-0.3-0.5 | 0.3-0.5 | 0.03 | 0.3-1 | 0.3-0.5*-1 |
| | 230/400 - 240/415 - 400/690 | | | | | |
| | 690 | | | | | |
| | 690 | | | | | |
| | 195 | | | | | |
| | 50...60 | | | | | |
| | according to the breaking capacity of the associated MCB | | | | | |
| | according to the Icu of the associated MCB | | | | | |
| | according to the Icu of the associated MCB | | | | | |
| | according to the Icu of the associated MCB | | | | | |
| | 6 | | | | | |
| | 2.5 | | | | | |
| | 250 | | | 3000 | 5000 | |
| | blue operating just from OFF position | | | | | |
| | 10000 | | | | | |
| | 20000 | | | | | |
| | IP4X | | | | | |
| | IP2X | | | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | | | |
| | -25...+60 | | | | | |
| | -40...+70 | | | | | |
| | 6...50 | | | | | |
| | 6...70 | | | | | |
| | min. 3 / max. 4 | | | | | |
| | on DIN rail EN 60715 (35 mm) by means of rapid fixing device | | | | | |
| | 108.2 x 82.3 x 81 | | | | | |
| | 108.2 x 82.3 x 117 | | | | | |
| | 108.2 x 82.3 x 117 | | | | | |
| | 300 for 63 A - 415 for 100 A | | | | | |
| | 400 for 63 A - 640 for 100 A | | | | | |
| | 460 for 63 A - 765 for 100 A | | | | | |
| | yes | | | | | |
| | yes | | | | | |

# RCD-blocks
# DDA 800 AC type for MCBs S800

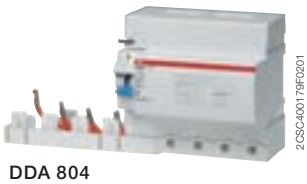



DDA 802






DDA 803




DDA 804

## DDA 800 AC type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 series up to 63 A. Protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 60947-2 Ann. B**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 | 919704 | DDA802AC-63/0.03 | 2CSB802001R1630 | | 0.300 | 1 |
| | 300 | 63 | 919902 | DDA802AC-63/0.3 | 2CSB802001R3630 | | 0.300 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 63 | 922001 | DDA803AC-63/0.03 | 2CSB803001R1630 | | 0.400 | 1 |
| | 300 | 63 | 922209 | DDA803AC-63/0.3 | 2CSB803001R3630 | | 0.400 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 924401 | DDA804AC-63/0.03 | 2CSB804001R1630 | | 0.460 | 1 |
| | 300 | 63 | 924609 | DDA804AC-63/0.3 | 2CSB804001R3630 | | 0.460 | 1 |

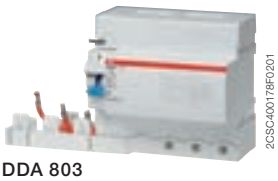
**Where to find more:**
Technical details for DDA 800:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

**Maybe you are also interested in:**
Auxiliary elements and accessories for S800 and DDA 800 p.4/56

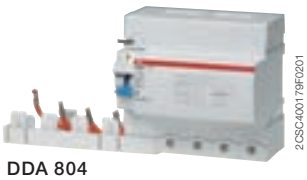
# RCD-blocks
# DDA 800 A type for MCBs S800




DDA 802




DDA 803




DDA 804

## DDA 800 A type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with In=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 60947-2 Ann. B**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 | 920007 | DDA802 A-63/0.03 | 2CSB802101R1630 | | 0.300 | 1 |
| | 300 | 63 | 920205 | DDA802 A-63/0.3 | 2CSB802101R3630 | | 0.300 | 1 |
| | | 100 | 545033 | DDA802 A-100/0.3 | 2CSB802101R3000 | | 0.415 | 1 |
| | 500 | 63 | 920403 | DDA802 A-63/0.5 | 2CSB802101R4630 | | 0.300 | 1 |
| | | 100 | 542636 | DDA802 A-100/0.5 | 2CSB802101R4000 | | 0.415 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 63 | 922308 | DDA803 A-63/0.03 | 2CSB803101R1630 | | 0.400 | 1 |
| | 300 | 63 | 922506 | DDA803 A-63/0.3 | 2CSB803101R3630 | | 0.400 | 1 |
| | | 100 | 544135 | DDA803 A-100/0.3 | 2CSB803101R3000 | | 0.640 | 1 |
| | 500 | 63 | 922704 | DDA803 A-63/0.5 | 2CSB803101R4630 | | 0.400 | 1 |
| | | 100 | 541738 | DDA803 A-100/0.5 | 2CSB803101R4000 | | 0.640 | 1 |

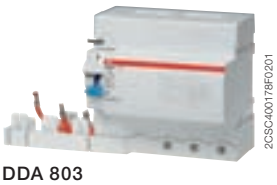
| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 924807 | DDA804 A-63/0.03 | 2CSB804101R1630 | | 0.460 | 1 |
| | 300 | 63 | 925002 | DDA804 A-63/0.3 | 2CSB804101R3630 | | 0.460 | 1 |
| | | 100 | 547532 | DDA804 A-100/0.3 | 2CSB804101R3000 | | 0.765 | 1 |
| | 500 | 63 | 925200 | DDA804 A-63/0.5 | 2CSB804101R4630 | | 0.460 | 1 |
| | | 100 | 544937 | DDA804 A-100/0.5 | 2CSB804101R4000 | | 0.765 | 1 |

# RCD-blocks
## DDA 800 A type AP-R (high immunity) for MCBs S800

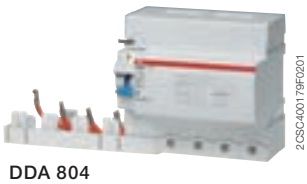



DDA 802






DDA 803




DDA 804

### DDA 800 A AP-R type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (with IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC/EN 60947-2 Ann. B**

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 63 | 921400 | DDA802 A-63/0.03 AP-R | 2CSB802401R1630 | | 0.300 | 1 |
| | | 100 | 544630 | DDA802 A-100/0.03 AP-R | 2CSB802401R1000 | | 0.415 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 30 | 63 | 923800 | DDA803 A-63/0.03 AP-R | 2CSB803401R1630 | | 0.400 | 1 |
| | | 100 | 542230 | DDA803 A-100/0.03 AP-R | 2CSB803401R1000 | | 0.640 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 927709 | DDA804 A-63/0.03 AP-R | 2CSB804401R1630 | | 0.460 | 1 |
| | | 100 | 547136 | DDA804 A-100/0.03 AP-R | 2CSB804401R1000 | | 0.765 | 1 |

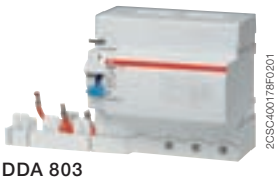
**Where to find more:**
Technical details for DDA 800:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

**Maybe you are also interested in:**
Auxiliary elements and accessories for S800 and DDA 800 p.4/56

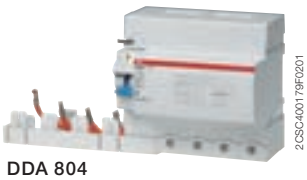
# RCD-blocks
# DDA 800 A type selective for MCBs S800



DDA 802



DDA 803



DDA 804

## DDA 800 A selective type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 series up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide).

**Application: commercial, industrial.**

**Standard: IEC/EN 60947-2 Ann. B**



| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 63 | 920601 | DDA802 A S-63/0.3 | 2CSB802201R3630 | | 0.300 | 1 |
| | | 100 | 542537 | DDA802 A S-100/0.3 | 2CSB802201R3000 | | 0.415 | 1 |
| | 1000 | 63 | 920809 | DDA802 A S-63/1 | 2CSB802201R5630 | | 0.300 | 1 |
| | | 100 | 547433 | DDA802 A S-100/1 | 2CSB802201R5000 | | 0.415 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 3 | 300 | 63 | 922902 | DDA803 A S-63/0.3 | 2CSB803201R3630 | | 0.400 | 1 |
| | | 100 | 544838 | DDA803 A S-100/0.3 | 2CSB803201R3000 | | 0.640 | 1 |
| | 500 | 100 | 542438 | DDA803 A S-100/0.5 | 2CSB803201R4000 | | 0.640 | 1 |
| | 1000 | 63 | 923206 | DDA803 A S-63/1 | 2CSB803201R5630 | | 0.400 | 1 |
| | | 100 | 547334 | DDA803 A S-100/1 | 2CSB803201R5000 | | 0.640 | 1 |

| Number of poles | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 300 | 63 | 926207 | DDA804 A S-63/0.3 | 2CSB804201R3630 | | 0.460 | 1 |
| | | 100 | 544739 | DDA804 A S-100/0.3 | 2CSB804201R3000 | | 0.765 | 1 |
| | 500 | 100 | 542339 | DDA804 A S-100/0.5 | 2CSB804201R4000 | | 0.765 | 1 |
| | 1000 | 63 | 926504 | DDA804 A S-63/1 | 2CSB804201R5630 | | 0.460 | 1 |
| | | 100 | 547235 | DDA804 A S-100/1 | 2CSB804201R5000 | | 0.765 | 1 |

# RCBOs
## DS800S technical features




**DS800S**

3

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Operating characteristic: type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated sensitivity IΔn | | A |
| | Rated current In | | A |
| | Rated voltage Ue | | V |
| | Insulation voltage Ui | | V |
| | Max. operating voltage of circuit test | | V |
| | Min. operating voltage of circuit test | | V |
| | Rated frequency | | Hz |
| | Short-circuit breaking capacity | 240/415 V | kA |
| | ultimate Icu | 254/440 V | kA |
| | acc. to IEC/EN 60947-2 | 289/500 V | kA |
| | (AC) 50/60 Hz | 400/690 V | kA |
| | Short-circuit breaking capacity | 240/415 V | kA |
| | service Ics | 254/440 V | kA |
| | acc. to IEC/EN 60947-2 | 289/500 V | kA |
| | (AC) 50/60 Hz | 400/690 V | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Thermomagnetic release characteristic | B: 3 In ≤ Im ≤ 5 In | |
| | | C: 5 In ≤ Im ≤ 10 In | |
| | | D: 10 In ≤ Im ≤ 20 In | |
| | | K: 8 In ≤ Im ≤ 14 In | |
| | Surge current resistance acc. to VDE 0432 Part 2 (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Ambient temperature (with daily average ≤ + 35 °C) | | °C |
| | Storage temperature | | °C |
| Installation | Terminal size for cables | flexible | $mm^2$ |
| | | rigid | $mm^2$ |
| | Tightening torque | | Nm |
| | Mounting | | |
| Dimensions and weight | Dimensions (H x D x W) | 2P | mm |
| | | 3P | mm |
| | | 4P | mm |
| | Weight | 2P | g |
| | | 3P | g |
| | | 4P | g |
| Combination with auxiliary elements | Combinable with: | auxiliary contact | |
| | | signal contact/auxiliary switch | |
| | | shunt trip | |
| | | undervoltage release | |

(*) 1A on 2P and 4P versions, while 0.3A only on 4P ones.

| | DS800S A | DS800N A | DS800S A S | DS800N A S | DS800S A AP-R | DS800N A AP-R |
|---|---|---|---|---|---|---|
| | IEC/EN 60947-2 | | | | | |
| | A | | A | | A | |
| | 2P, 3P, 4P | | 2P,4P | | 2P, 3P, 4P | |
| | 0.3 | | 0.3-1(*) | | 0.03 | |
| | 125 | | | | | |
| | 230/400-240/415-400/690 | | | | | |
| | 690 | | | | | |
| | 690 | | | | | |
| | 195 | | | | | |
| | 50…60 | | | | | |
| | 50 | 36 | 50 | 36 | 50 | 36 |
| | 30 | 20 | 30 | 20 | 30 | 20 |
| | 10 | 10 | 10 | 10 | 10 | 10 |
| | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| | 40 | 30 | 40 | 30 | 40 | 30 |
| | 15 | 10 | 15 | 10 | 15 | 10 |
| | 5 | 5 | 5 | 5 | 5 | 5 |
| | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | | | | | |
| | 2.5 | | | | | |
| | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | | ■ | | ■ | |
| | 250 | 250 | 5000 | 5000 | 3000 | 3000 |
| | black (MCB) sealable in ON-OFF position + blue (RCD) operating just from OFF position | | | | | |
| | 10000 | | | | | |
| | 20000 | | | | | |
| | IP4X | | | | | |
| | IP2X | | | | | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | | | | | |
| | -25…+60 | | | | | |
| | -40…+70 | | | | | |
| | 6…50 | | | | | |
| | 6…70 | | | | | |
| | min. 3 / max. 4 | | | | | |
| | on DIN rail EN 60715 (35 mm) by means of rapid fixing device | | | | | |
| | 108,2 x 82,3 x 133.5 | | | | | |
| | 108,2 x 82,3 x 196 | | | | | |
| | 108,2 x 82,3 x 223 | | | | | |
| | 790 | | | | | |
| | 1140 | | | | | |
| | 1440 | | | | | |
| | yes | | | | | |
| | yes | | | | | |
| | yes | | | | | |
| | yes | | | | | |

# RCBOs
## DS800S series 50000 A type B, C, D and K characteristics

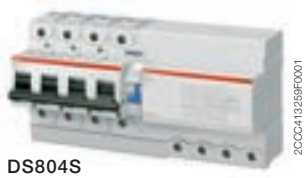



DS802S






DS803S




DS804S

### DS800S, A type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts; command and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 300 | 125 | 211721 | DS802S-B125/0.3A | 2CCA862005R0845 | | 0.790 | 1 |
| | C | 300 | 125 | 211738 | DS802S-C125/0.3A | 2CCA862005R0844 | | 0.790 | 1 |
| | D | 300 | 125 | 211745 | DS802S-D125/0.3A | 2CCA862005R0841 | | 0.790 | 1 |
| | K | 300 | 125 | 211752 | DS802S-K125/0.3A | 2CCA862005R0647 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | B | 300 | 125 | 211769 | DS803S-B125/0.3A | 2CCA863005R0845 | | 1.14 | 1 |
| | C | 300 | 125 | 211776 | DS803S-C125/0.3A | 2CCA863005R0844 | | 1.14 | 1 |
| | D | 300 | 125 | 211783 | DS803S-D125/0.3A | 2CCA863005R0841 | | 1.14 | 1 |
| | K | 300 | 125 | 211790 | DS803S-K125/0.3A | 2CCA863005R0647 | | 1.14 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 300 | 125 | 211806 | DS804S-B125/0.3A | 2CCA864005R0845 | | 1.44 | 1 |
| | C | 300 | 125 | 211813 | DS804S-C125/0.3A | 2CCA864005R0844 | | 1.44 | 1 |
| | D | 300 | 125 | 211820 | DS804S-D125/0.3A | 2CCA864005R0841 | | 1.44 | 1 |
| | K | 300 | 125 | 211837 | DS804S-K125/0.3A | 2CCA864005R0647 | | 1.44 | 1 |

**Where to find more:**
Technical details for DS 800 RCBOs:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

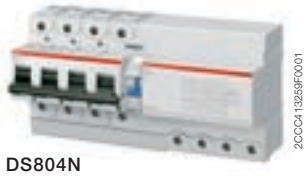
# RCBOs
## DS800N series 36000 A type B, C and D characteristics




DS802N




DS803N




DS804N

### DS800N, A type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts; command and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=36 kA**



| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 300 | 125 | 211844 | DS802N-B125/0.3A | 2CCA892005R0845 | | 0.790 | 1 |
| | C | 300 | 125 | 211851 | DS802N-C125/0.3A | 2CCA892005R0844 | | 0.790 | 1 |
| | D | 300 | 125 | 211868 | DS802N-D125/0.3A | 2CCA892005R0841 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | B | 300 | 125 | 211875 | DS803N-B125/0.3A | 2CCA893005R0845 | | 1.14 | 1 |
| | C | 300 | 125 | 211882 | DS803N-C125/0.3A | 2CCA893005R0844 | | 1.14 | 1 |
| | D | 300 | 125 | 211899 | DS803N-D125/0.3A | 2CCA893005R0841 | | 1.14 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 300 | 125 | 211905 | DS804N-B125/0.3A | 2CCA894005R0845 | | 1.44 | 1 |
| | C | 300 | 125 | 211912 | DS804N-C125/0.3A | 2CCA894005R0844 | | 1.44 | 1 |
| | D | 300 | 125 | 211929 | DS804N-D125/0.3A | 2CCA894005R0841 | | 1.44 | 1 |

# RCBOs
## DS800S series 50000 A type selective B, C, D and K characteristics

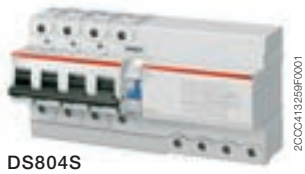





DS802S




DS803S




DS804S

### DS800S, A selective type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents with an intentional tripping delay, which allows to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 1000 | 125 | 211516 | DS802S-B125/1AS | 2CCC862006R0845 | | 0.790 | 1 |
| | C | 1000 | 125 | 211523 | DS802S-C125/1AS | 2CCC862006R0844 | | 0.790 | 1 |
| | D | 1000 | 125 | 211530 | DS802S-D125/1AS | 2CCC862006R0841 | | 0.790 | 1 |
| | K | 1000 | 125 | 211547 | DS802S-K125/1AS | 2CCC862006R0647 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 300 | 125 | 211554 | DS804S-B125/0.3AS | 2CCC864005R0845 | | 1.44 | 1 |
| | | 1000 | 125 | 211592 | DS804S-B125/1AS | 2CCC864006R0845 | | 1.44 | 1 |
| | C | 300 | 125 | 211561 | DS804S-C125/0.3AS | 2CCC864005R0844 | | 1.44 | 1 |
| | | 1000 | 125 | 211608 | DS804S-C125/1AS | 2CCC864006R0844 | | 1.44 | 1 |
| | D | 300 | 125 | 211578 | DS804S-D125/0.3AS | 2CCC864005R0841 | | 1.44 | 1 |
| | | 1000 | 125 | 211615 | DS804S-D125/1AS | 2CCC864006R0841 | | 1.44 | 1 |
| | K | 300 | 125 | 211685 | DS804S-K125/0.3AS | 2CCC864005R0647 | | 1.44 | 1 |
| | | 1000 | 125 | 211622 | DS804S-K125/1AS | 2CCC864006R0647 | | 1:44 | 1 |

**Where to find more:**
Technical details for DS 800 RCBOs:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

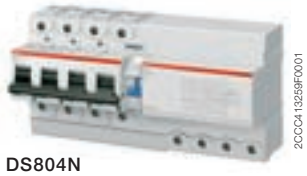
# RCBOs
## DS800N series 36000 A type selective B, C and D characteristics




DS802N




DS803N




DS804N

### DS800N, A selective type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents with an intentional tripping delay, which allows to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=36 kA**



| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 1000 | 125 | 211639 | DS802N-B125/1AS | 2CCC892006R0845 | | 0.790 | 1 |
| | C | 1000 | 125 | 211646 | DS802N-C125/1AS | 2CCC892006R0844 | | 0.790 | 1 |
| | D | 1000 | 125 | 211653 | DS802N-D125/1AS | 2CCC892006R0841 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 300 | 125 | 211660 | DS804N-B125/0.3AS | 2CCC894005R0845 | | 1.44 | 1 |
| | | 1000 | 125 | 211691 | DS804N-B125/1AS | 2CCC894006R0845 | | 1.44 | 1 |
| | C | 300 | 125 | 211677 | DS804N-C125/0.3AS | 2CCC894005R0844 | | 1.44 | 1 |
| | | 1000 | 125 | 211707 | DS804N-C125/1AS | 2CCC894006R0844 | | 1.44 | 1 |
| | D | 300 | 125 | 211684 | DS804N-D125/0.3AS | 2CCC894005R0841 | | 1.44 | 1 |
| | | 1000 | 125 | 211714 | DS804N-D125/1AS | 2CCC894006R0841 | | 1.44 | 1 |

# RCBOs
## DS800S series 50000 A type, AP-R (high immunity) B, C, D and K characteristics




DS802S






DS803S




DS804S

### DS800S AP-R, A type

Function: protection against the effects of sinusoidal alternating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=50 kA**

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 30 | 125 | 211301 | DS802SB125/.03AP-R | 2CCB862004R0845 | | 0.790 | 1 |
| | C | 30 | 125 | 211318 | DS802SC125/.03AP-R | 2CCB862004R0844 | | 0.790 | 1 |
| | D | 30 | 125 | 211325 | DS802SD125/.03AP-R | 2CCB862004R0841 | | 0.790 | 1 |
| | K | 30 | 125 | 211332 | DS802SK125/.03AP-R | 2CCB862004R0647 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | B | 30 | 125 | 211349 | DS803SB125/.03AP-R | 2CCB863004R0845 | | 1.14 | 1 |
| | C | 30 | 125 | 211356 | DS803SC125/.03AP-R | 2CCB863004R0844 | | 1.14 | 1 |
| | D | 30 | 125 | 211363 | DS803SD125/.03AP-R | 2CCB863004R0841 | | 1.14 | 1 |
| | K | 30 | 125 | 211370 | DS803SK125/.03AP-R | 2CCB863004R0647 | | 1.14 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 30 | 125 | 211387 | DS804SB125/.03AP-R | 2CCB864004R0845 | | 1.44 | 1 |
| | C | 30 | 125 | 211394 | DS804SC125/.03AP-R | 2CCB864004R0844 | | 1.44 | 1 |
| | D | 30 | 125 | 211400 | DS804SD125/.03AP-R | 2CCB864004R0841 | | 1.44 | 1 |
| | K | 30 | 125 | 211417 | DS804SK125/.03AP-R | 2CCB864004R0647 | | 1,44 | 1 |

**Where to find more:**
Technical details for DS 800 RCBOs:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

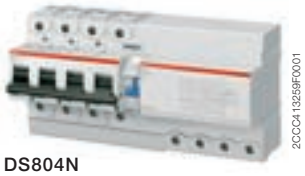
# RCBOs
# DS800N series 36000 A type, AP-R (high immunity) B, C and D characteristics




DS802N




DS803N




DS804N

## DS800N AP-R, A type

Function: protection against the effects of sinusoidal alternating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (IΔn=30 mA); protection and isolation of resistive and inductive loads.

**Application: industrial.**

**Standard: IEC/EN 60947-2**

**Icu=36 kA**



| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 | B | 30 | 125 | 211424 | DS802NB125/.03AP-R | 2CCB892004R0845 | | 0.790 | 1 |
| | C | 30 | 125 | 211431 | DS802NC125/.03AP-R | 2CCB892004R0844 | | 0.790 | 1 |
| | D | 30 | 125 | 211448 | DS802ND125/.03AP-R | 2CCB892004R0841 | | 0.790 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | B | 30 | 125 | 211455 | DS803NB125/.03AP-R | 2CCB893004R0845 | | 1.14 | 1 |
| | C | 30 | 125 | 211462 | DS803NC125/.03AP-R | 2CCB893004R0844 | | 1.14 | 1 |
| | D | 30 | 125 | 211479 | DS803ND125/.03AP-R | 2CCB893004R0841 | | 1.14 | 1 |

| Number of poles | Curve | Rated residual current IΔn mA | Rated current In A | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | B | 30 | 125 | 211486 | DS804NB125/.03AP-R | 2CCB894004R0845 | | 1.44 | 1 |
| | C | 30 | 125 | 211493 | DS804NC125/.03AP-R | 2CCB894004R0844 | | 1.44 | 1 |
| | D | 30 | 125 | 211509 | DS804ND125/.03AP-R | 2CCB894004R0841 | | 1.44 | 1 |

# RCBOs
## DS 271 technical features






DS 271

| | | | |
|---|---|---|---|
| | Standards | | |
| Electrical features | Type (wave form of the earth leakage sensed) | | |
| | Poles | | |
| | Rated current In | | A |
| | Rated sensitivity IΔn | | A |
| | Rated voltage Ue | | V |
| | Insulation voltage Ui | | |
| | Max. operating voltage | | V |
| | Min. operating voltage | | V |
| | Rated frequency | | Hz |
| | Rated breaking capacity acc. to IEC/EN 61009 | ultimate Icn | A |
| | Rated breaking capacity | ultimate Icu | kA |
| | acc. to IEC/EN 60947-2 1P+N @230 VAC, 2P, 3P, 4P @400 VAC | service Ics | kA |
| | Rated residual breaking capacity IΔm | | kA |
| | Rated impulse withstand voltage (1.2/50) Uimp | | kV |
| | Dielectric test voltage at ind. freq. for 1 min. | | kV |
| | Thermomagnetic release | B: 3 In ≤ Im ≤ 5 In | |
| | characteristic | C: 5 In ≤ Im ≤ 10 In | |
| | Surge current resistance (wave 8/20) | | A |
| Mechanical features | Toggle | | |
| | Electrical life | | |
| | Mechanical life | | |
| | Protection degree | housing | |
| | | terminals | |
| | Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | | °C/RH |
| | Reference temperature for setting of thermal element | | °C |
| | Ambient temperature (with daily average ≤ +35 °C) | | °C |
| | Storage temperature | | °C |
| Installation | Terminal type | top | |
| | | bottom | |
| | Terminal size top/bottom for cables | 1P+N | $mm^2$ |
| | | line side | $mm^2$ |
| | | load side | $mm^2$ |
| | Tightening torque top/bottom | 1P+N | Nm |
| | Mounting | | |
| Dimensions and weight | Dimensions (H x D x W) | 1P+N | mm |
| | Weight | 1P+N | g |
| Combination-with auxiliary-elements | Combinable with: | auxiliary contact | |
| | | signal contact | |
| | | shunt trip | |
| | | undervoltage release | |

| | DS 271 AC | DS 271 A |
|---|---|---|
| | IEC 61009-1; IEC 61009-2-2 | |
| | AC | A |
| | 1P+N | |
| | 6 ≤ In ≤ 40 | |
| | 0.01-0.03-0.1-0.3 | |
| | 230-240 | |
| | 500 | |
| | 254 | |
| | 85 | |
| | 50…60 | |
| | 10000 | |
| | - | |
| | 7.5 | |
| | 6 | |
| | 5 | |
| | 2.5 | |
| | ■ | ■ |
| | ■ | ■ |
| | 250 | |
| | black sealable in on-off position | |
| | 10000 | |
| | 20000 | |
| | IP4X | |
| | IP2X | |
| | 28 cycles with 55°C/90-96% and 25°C/95-100% | |
| | 30 | |
| | -25…+55 | |
| | -25…+70 | |
| | cage (shock protected) | |
| | cage (shock protected) | |
| | - | |
| | L1: 1up to 25; N: flexible 4; FE: flexible 0.75 | |
| | L1 and N: 1 up to 10 | |
| | 2 top; 1.2 bottom | |
| | on DIN rail EN 60715 (35 mm) by means of fast clip device | |
| | 120 x 67.6 x 17.5 | |
| | 205 | |
| | no | |
| | no | |
| | no | |
| | no | |

# RCBOs
# DS 271 series 10000 AC type B and C characteristics






DS 271

## DS 271 AC type, B and C characteristics

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC 61009-1; IEC 61009-2-2**

**Icn=10000 A**

| Charac-teristics/ curve | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| B | 10 | 6 | 036753 | DS271 AC-B6/0.01 ELN | 2CSR175092R0065 | | 0.205 | 1 |
| | | 10 | 036852 | DS271 AC-B10/0.01 ELN | 2CSR175092R0105 | | 0.205 | 1 |
| | | 16 | 036951 | DS271 AC-B16/0.01 ELN | 2CSR175092R0165 | | 0.205 | 1 |
| | | 20 | 037057 | DS271 AC-B20/0.01 ELN | 2CSR175092R0205 | | 0.205 | 1 |
| | | 25 | 037156 | DS271 AC-B25/0.01 ELN | 2CSR175092R0255 | | 0.205 | 1 |
| | | 32 | 037255 | DS271 AC-B32/0.01 ELN | 2CSR175092R0325 | | 0.205 | 1 |
| | 30 | 6 | 037354 | DS271 AC-B6/0.03 ELN | 2CSR175092R1065 | | 0.205 | 1 |
| | | 10 | 037453 | DS271 AC-B10/0.03 ELN | 2CSR175092R1105 | | 0.205 | 1 |
| | | 16 | 037552 | DS271 AC-B16/0.03 ELN | 2CSR175092R1165 | | 0.205 | 1 |
| | | 20 | 037651 | DS271 AC-B20/0.03 ELN | 2CSR175092R1205 | | 0.205 | 1 |
| | | 25 | 037750 | DS271 AC-B25/0.03 ELN | 2CSR175092R1255 | | 0.205 | 1 |
| | | 32 | 037859 | DS271 AC-B32/0.03 ELN | 2CSR175092R1325 | | 0.205 | 1/20 |

| Charac-teristics/ curve | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| C | 10 | 6 | 038559 | DS271 AC-C6/0.01 ELN | 2CSR175092R0064 | | 0.205 | 1 |
| | | 10 | 038658 | DS271 AC-C10/0.01 ELN | 2CSR175092R0104 | | 0.205 | 1 |
| | | 16 | 038757 | DS271 AC-C16/0.01 ELN | 2CSR175092R0164 | | 0.205 | 1/20 |
| | | 20 | 038856 | DS271 AC-C20/0.01 ELN | 2CSR175092R0204 | | 0.205 | 1 |
| | | 25 | 038955 | DS271 AC-C25/0.01 ELN | 2CSR175092R0254 | | 0.205 | 1 |
| | | 32 | 039051 | DS271 AC-C32/0.01 ELN | 2CSR175092R0324 | | 0.205 | 1/20 |
| | 30 | 6 | 039150 | DS271 AC-C6/0.03 ELN | 2CSR175092R1064 | | 0.205 | 1 |
| | | 10 | 039259 | DS271 AC-C10/0.03 ELN | 2CSR175092R1104 | | 0.205 | 1 |
| | | 16 | 039358 | DS271 AC-C16/0.03 ELN | 2CSR175092R1164 | | 0.205 | 1 |
| | | 20 | 039457 | DS271 AC-C20/0.03 ELN | 2CSR175092R1204 | | 0.205 | 1 |
| | | 25 | 039556 | DS271 AC-C25/0.03 ELN | 2CSR175092R1254 | | 0.205 | 1 |
| | | 32 | 039655 | DS271 AC-C32/0.03 ELN | 2CSR175092R1324 | | 0.205 | 1 |
| | | 40 | 128755 | DS271 AC-C40/0.03 ELN | 2CSR175092R1404 | | 0.205 | 1 |
| | 100 | 6 | 039754 | DS271 AC-C6/0.1 ELN | 2CSR175092R2064 | | 0.205 | 1 |
| | | 10 | 039853 | DS271 AC-C10/0.1 ELN | 2CSR175092R2104 | | 0.205 | 1/20 |
| | | 16 | 039952 | DS271 AC-C16/0.1 ELN | 2CSR175092R2164 | | 0.205 | 1/20 |
| | | 20 | 040057 | DS271 AC-C20/0.1 ELN | 2CSR175092R2204 | | 0.205 | 1/20 |
| | | 25 | 040156 | DS271 AC-C25/0.1 ELN | 2CSR175092R2254 | | 0.205 | 1 |
| | | 32 | 040255 | DS271 AC-C32/0.1 ELN | 2CSR175092R2324 | | 0.205 | 1 |
| | 300 | 6 | 040354 | DS271 AC-C6/0.3 ELN | 2CSR175092R3064 | | 0.205 | 1 |
| | | 10 | 040453 | DS271 AC-C10/0.3 ELN | 2CSR175092R3104 | | 0.205 | 1 |
| | | 16 | 040552 | DS271 AC-C16/0.3 ELN | 2CSR175092R3164 | | 0.205 | 1 |
| | | 20 | 040651 | DS271 AC-C20/0.3 ELN | 2CSR175092R3204 | | 0.205 | 1 |
| | | 25 | 040750 | DS271 AC-C25/0.3 ELN | 2CSR175092R3254 | | 0.205 | 1 |
| | | 32 | 040859 | DS271 AC-C32/0.3 ELN | 2CSR175092R3324 | | 0.205 | 1 |
| | | 40 | 128854 | DS271 AC-C40/0.3 ELN | 2CSR175092R3404 | | 0.205 | 1 |

**Where to find more:**
Technical details for DS 271 RCBOs: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of RCDs p.15/162

# RCBOs
# DS 271 series 10000 A type B and C characteristics



DS 271



## DS 271 A type, B and C characteristics

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (IΔn=30 mA).

**Application: commercial, industrial.**

**Standard: IEC 61009-1; IEC 61009-2-2**

**Icn=10000 A**

| Charac-teristics/ curve | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| B | 10 | 6 | 032557 | DS271 A-B6/0.01 ELN | 2CSR175192R0065 | | 0.205 | 1 |
| | | 10 | 032656 | DS271 A-B10/0.01 ELN | 2CSR175192R0105 | | 0.205 | 1 |
| | | 16 | 032755 | DS271 A-B16/0.01 ELN | 2CSR175192R0165 | | 0.205 | 1 |
| | | 20 | 032854 | DS271 A-B20/0.01 ELN | 2CSR175192R0205 | | 0.205 | 1 |
| | | 25 | 032953 | DS271 A-B25/0.01 ELN | 2CSR175192R0255 | | 0.205 | 1 |
| | | 32 | 033059 | DS271 A-B32/0.01 ELN | 2CSR175192R0325 | | 0.205 | 1 |
| | 30 | 6 | 033158 | DS271 A-B6/0.03 ELN | 2CSR175192R1065 | | 0.205 | 1 |
| | | 10 | 033257 | DS271 A-B10/0.03 ELN | 2CSR175192R1105 | | 0.205 | 1 |
| | | 16 | 033356 | DS271 A-B16/0.03 ELN | 2CSR175192R1165 | | 0.205 | 1 |
| | | 20 | 033455 | DS271 A-B20/0.03 ELN | 2CSR175192R1205 | | 0.205 | 1 |
| | | 25 | 033554 | DS271 A-B25/0.03 ELN | 2CSR175192R1255 | | 0.205 | 1 |
| | | 32 | 033653 | DS271 A-B32/0.03 ELN | 2CSR175192R1325 | | 0.205 | 1 |

| Charac-teristics/ curve | Rated residual current IΔn mA | Rated current In A | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| C | 10 | 6 | 034353 | DS271 A-C6/0.01 ELN | 2CSR175192R0064 | | 0.205 | 1 |
| | | 10 | 034452 | DS271 A-C10/0.01 ELN | 2CSR175192R0104 | | 0.205 | 1 |
| | | 16 | 034551 | DS271 A-C16/0.01 ELN | 2CSR175192R0164 | | 0.205 | 1 |
| | | 20 | 034650 | DS271 A-C20/0.01 ELN | 2CSR175192R0204 | | 0.205 | 1 |
| | | 25 | 034759 | DS271 A-C25/0.01 ELN | 2CSR175192R0254 | | 0.205 | 1 |
| | | 32 | 034858 | DS271 A-C32/0.01 ELN | 2CSR175192R0324 | | 0.205 | 1 |
| | 30 | 6 | 034957 | DS271 A-C6/0.03 ELN | 2CSR175192R1064 | | 0.205 | 1 |
| | | 10 | 035053 | DS271 A-C10/0.03 ELN | 2CSR175192R1104 | | 0.205 | 1/20 |
| | | 16 | 035152 | DS271 A-C16/0.03 ELN | 2CSR175192R1164 | | 0.205 | 1/20 |
| | | 20 | 035251 | DS271 A-C20/0.03 ELN | 2CSR175192R1204 | | 0.205 | 1/20 |
| | | 25 | 035350 | DS271 A-C25/0.03 ELN | 2CSR175192R1254 | | 0.205 | 1 |
| | | 32 | 035459 | DS271 A-C32/0.03 ELN | 2CSR175192R1324 | | 0.205 | 1 |
| | | 40 | 128557 | DS271 A-C40/0.03 ELN | 2CSR175192R1404 | | 0.205 | 1 |
| | 100 | 6 | 035558 | DS271 A-C6/0.1 ELN | 2CSR175192R2064 | | 0.205 | 1 |
| | | 10 | 035657 | DS271 A-C10/0.1 ELN | 2CSR175192R2104 | | 0.205 | 1 |
| | | 16 | 035756 | DS271 A-C16/0.1 ELN | 2CSR175192R2164 | | 0.205 | 1 |
| | | 20 | 035855 | DS271 A-C20/0.1 ELN | 2CSR175192R2204 | | 0.205 | 1 |
| | | 25 | 035954 | DS271 A-C25/0.1 ELN | 2CSR175192R2254 | | 0.205 | 1 |
| | | 32 | 036050 | DS271 A-C32/0.1 ELN | 2CSR175192R2324 | | 0.205 | 1 |
| | 300 | 6 | 036159 | DS271 A-C6/0.3 ELN | 2CSR175192R3064 | | 0.205 | 1 |
| | | 10 | 036258 | DS271 A-C10/0.3 ELN | 2CSR175192R3104 | | 0.205 | 1 |
| | | 16 | 036357 | DS271 A-C16/0.3 ELN | 2CSR175192R3164 | | 0.205 | 1 |
| | | 20 | 036456 | DS271 A-C20/0.3 ELN | 2CSR175192R3204 | | 0.205 | 1 |
| | | 25 | 036555 | DS271 A-C25/0.3 ELN | 2CSR175192R3254 | | 0.205 | 1 |
| | | 32 | 036654 | DS271 A-C32/0.3 ELN | 2CSR175192R3324 | | 0.205 | 1 |
| | | 40 | 128656 | DS271 A-C40/0.3 ELN | 2CSR175192R3404 | | 0.205 | 1 |

# Residual current relays
## RD2



RD2

3

| Technical features | | |
|---|---|---|
| Operating voltage | [V] | 230÷400 a.c. (RD2) and<br>48÷150 a.c./d.c. (RD2-48) |
| Frequency | [Hz] | 50÷60 |
| Type | | A |
| Operating temperature | [°C] | -5…+40 |
| Power consumption | [W] | <3.4, 230 V a.c. |
| Sensitivity settings IΔn | [A] | 0.03; 0.1; 0.3; 0.5; 1; 2 |
| Tripping time settings | [s] | Fast (instantaneous); 0.3; 0.5; 1; 2; 5 |
| Contact capacity | [A] | 10 at 250 V a.c. (ohmic) |
| Contact type | | NC-C-NO |
| Modules | [No.] | 2 |
| Protection degree | | IP20 |
| Standards | | IEC/EN 62020 |

### RD2 residual current relays

Residual current relays with external toroidal transformer can detect leakage currents. Through minidip it is possible to set sensitivity and intervention time.

| Operating voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| V | EAN | Type code | Order code | | kg | pc. |
| 230…400 a.c. | 058007 | RD2 | 2CSM142120R1201 | | 0.125 | 1 |
| 48…150 a.c./d.c. | 537809 | RD2-48 | 2CSM242120R1201 | | 0.125 | 1 |

**Where to find more:**
Technical details for RD2:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Wiring diagrams for RD2 p.15/8

**Maybe you are also interested in:**
Toroidal transformers p.3/122

# Residual current relays
## RD3



RD3



RD3M



RD3P

| Technical features | RD3/RD3-48 | RD3M/RD3M-48 | RD3P/RD3P-48 |
|---|---|---|---|
| Operating voltage | RD3: 230-400 Vac +10% / -15%<br>RD3-48: 12-48 Vac/ Vdc +10% / -15% | RD3M: 230-400 Vac +10% / -15%<br>RD3M-48: 12-48 Vac/ Vdc +10% / -15% | RD3P: 230-400 Vac +10% / -15%<br>RD3P-48: 12-48 Vac/ Vdc +10% / -15% |
| Auxiliary supply frequency | 50-60 Hz | | |
| Frequency filter | - | Yes | Yes |
| Type | A (up to IΔn=5 A)<br>AC (for higher current) | | |
| Operating temperature | -25....+70 °C | | |
| Power consumption | <3.6 W (RD3, RD3M, RD3P),<br><600 mW RD3-48, RD3M-48, RD3P-48) | | |
| Sensitivity settings IΔn | 0.03-0.1-0.3-0.5-1-2-3-5-10-30 A | | |
| Tripping time settings Δt | 0-0.06-0.2-0.3-0.5-1-2-3-5-10 s | | |
| Pre-alarm threshold | - | 60% | 60% |
| Max. resistance connection between toroidal transformer and relay | 3 Ω | | |
| Max. length connection of remote reset button | 15 m | | |
| Output Contact capacity (7-8-9); (10-11-12) | 8 A, 250 V a.c. | | |
| Led bar indicator | - | - | Yes |
| Max. cable terminals section | 2.5 mm² | | |
| Modules | 3 | | |
| Dimensions | 52.8 × 85 × 64.7 mm | | |
| Protection degree | IP20 | | |
| Standards | IEC/EN 60947-2 annex. M; IEC/EN 62020 | | |

### RD3 residual current relays

The RD3 family of electronic residual current relays provides residual current protection and monitoring functions according to IEC/EN 60947-2:2006 annex M and can be used in conjunction with all S 200 automatic devices and Tmax range moulded case devices up to T5, for industrial installations.
The RD3 residual current relays can provide status indications through two output contacts.

| Operating voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| V | EAN | Type code | Order code | | kg | pc. |
| 12-48 a.c./d.c. | 748236 | RD3-48 | 2CSJ201001R0001 | | 0.13 | 1 |
| 230-400 a.c. | 734833 | RD3 | 2CSJ201001R0002 | | 0.25 | 1 |
| 12-48 a.c./d.c. | 733935 | RD3M-48 | 2CSJ202001R0001 | | 0.13 | 1 |
| 230-400 a.c. | 747031 | RD3M | 2CSJ202001R0002 | | 0.25 | 1 |
| 12-48 a.c./d.c. | 734734 | RD3P-48 | 2CSJ203001R0001 | | 0.13 | 1 |
| 230-400 a.c. | 733836 | RD3P | 2CSJ203001R0002 | | 0.25 | 1 |

**Where to find more:**
Tripping time, cumulative time, non intervention time for RD3:
Chapter 3 of
Solutions for electrical distribution in buildings - technical details

Wiring Diagrams for RD3 p.15/8

**Maybe you are also interested in:**
Toroidal transformers p.3/122

# Front panel residual current relays
## ELR



| Technical features | | ELR48P | ELR72 | ELR72P | ELR96 | ELR96P | ELR96PF | ELR96PD |
|---|---|---|---|---|---|---|---|---|
| Operating voltage | [V] | 24, 48, 110, 230 a.c./ 24, 48, 115 d.c. | 24, 48, 110, 230 a.c./ 24, 48, 110 d.c. | 24, 48, 110 230, 400 a.c./ 24, 48 d.c. | 24, 48, 110, 230, 400 a.c./ 24, 48 d.c. | 24, 48, 110, 230, 400 a.c./ 24, 48 d.c. | 110, 230, 400 a.c. | 110, 230, 400 a.c. |
| Frequency | [Hz] | 50 – 60 | | | | | | |
| Frequency filter | | - | - | - | - | - | Yes | Yes |
| Type | | A | | | | | | |
| Operating temperature | [°C] | -10…+60 | | | | | | |
| Power consumption | [W] | <7 | | | | | | |
| Sensitivity setting IΔn | [A] | from 0,03 to 30 | | | | | | |
| Tripping time setting Dt | [s] | from 0 to 5 | | | | | | |
| Contacts | [no.] | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| Contact capacity | [A] | 5 (250 V a.c.) | | | | | | |
| Dimensions | [mm] | 48 x 48 | 72 x 72 | 72 x 72 | 96 x 96 | 96 x 96 | 96x96 | 96 x 96 |
| Digital display | | - | - | - | - | - | - | Yes |
| Protection degree (with cover) | | IP52 | | | | | | |
| Protection degree (without cover) | | IP40 | | | | | | |
| Protection degree (terminals) | | IP20 | | | | | | |
| Standards | | IEC EN 60947-2 Annex M | | | | | | |

**Where to find more:**
Tripping time, cumulative time, non intervention time for ELR: Chapter 3 of Solutions for electrical distribution in buildings - technical details

Wiring diagrams for ELR p.15/9

**Maybe you are also interested in:**
Toroidal transformers p.3/122




ELR48P




ELR72




ELR96




ELR96PD

## ELR front panel residual current relay

Front panel residual current relays are electronic devices used in combination with an external toroidal transformer. They are according to the protection standard IEC/EN 60947-2 Annex-M.
The sensitivity can be set from 0.03 A to 30 A, while the tripping time from 0 to 5 seconds.
Residual current relays are available in versions 48x48 mm, 72x72 mm, and 96x96 mm.
The Fail Safe function is available for versions ELR48P, ELR72P and ELR96P: the contacts switch when there is no auxiliary power.
The ELR96PF version is equipped with Fail Safe function, fault memory LED, and a frequency filter, that ensure continuity of service in the presence of harmonics.
ELR96PD has (in addition to these functions) a digital display for an instantaneous view of the residual current IΔn.

| Operating voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| V | EAN | Type code | Order code | | kg | pc. |
| 110 V a.c./d.c. - 230 V a.c. | 748229 | ELR48P | 2CSG252211R1202 | | 0.112 | 1 |
| 24-48 V a.c./d.c. | 734826 | ELR48V24P | 2CSG452211R1202 | | 0.112 | 1 |
| 110 V a.c./d.c. - 230 V a.c. | 733928 | ELR72 | 2CSG252120R1202 | | 0.322 | 1 |
| 24-48 V a.c./d.c. | 747024 | ELR72V24 | 2CSG452120R1202 | | 0.322 | 1 |
| 110-230-400 V a.c. | 734727 | ELR72P | 2CSG152424R1202 | | 0.322 | 1 |
| 24-48 V a.c./d.c. | 733829 | ELR72V24P | 2CSG452424R1202 | | 0.322 | 1 |
| 110-230-400 V a.c. | 734628 | ELR96 | 2CSG152130R1202 | | 0.383 | 1 |
| 24-48 V a.c./d.c. | 733720 | ELR96V24 | 2CSG452130R1202 | | 0.383 | 1 |
| 110-230-400 V a.c. | 734529 | ELR96P | 2CSG152434R1202 | | 0.383 | 1 |
| 24-48 V a.c./d.c. | 733621 | ELR96V24P | 2CSG452434R1202 | | 0.383 | 1 |
| 110-230-400 V a.c. | 734420 | ELR96PF | 2CSG152435R1202 | | 0.383 | 1 |
| 110-230-400 V a.c. | 733522 | ELR96PD | 2CSG152436R1202 | | 0.383 | 1 |

# Toroidal transformers
# TR






TR

## Toroidal transformers

| Dimension Ø | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| mm | EAN | Type code | Order code | | kg | pc. |
| 29 (modular version) | 020707 | TRM | 2CSM029000R1211 | | 0.170 | 1 |
| 35 | 020301 | TR1 | 2CSG035100R1211 | | 0.212 | 1 |
| 60 | 020400 | TR2 | 2CSG060100R1211 | | 0.274 | 1 |
| 80 | 020509 | TR3 | 2CSG080100R1211 | | 0.454 | 1 |
| 110 | 020608 | TR4 | 2CSG110100R1211 | | 0.530 | 1 |
| 110 (openable version) | 743408 | TR4/A | 2CSG110200R1211 | | 0.600 | 1 |
| 160 | 743507 | TR160 | 2CSG160100R1211 | | 1.350 | 1 |
| 160 (openable version) | 743606 | TR160A | 2CSG160200R1211 | | 1.600 | 1 |
| 210 | 024804 | TR5 | 2CSG210100R1211 | | 1.534 | 1 |
| 210 (openable version) | 065708 | TR5/A | 2CSG210200R1211 | | 1.856 | 1 |

**Where to find more:**
Technical details for toroidal transformers: Chapter 3 of Solutions for electrical distribution in buildings - technical details

**Maybe you are also interested in:**
RD2 residual current relays p.3/118
RD3 residual current relays p.3/119
ELR residual current relays p.3/121

# Solutions for electrical distribution in buildings
## Auxiliary elements and accessories for System pro *M*® products

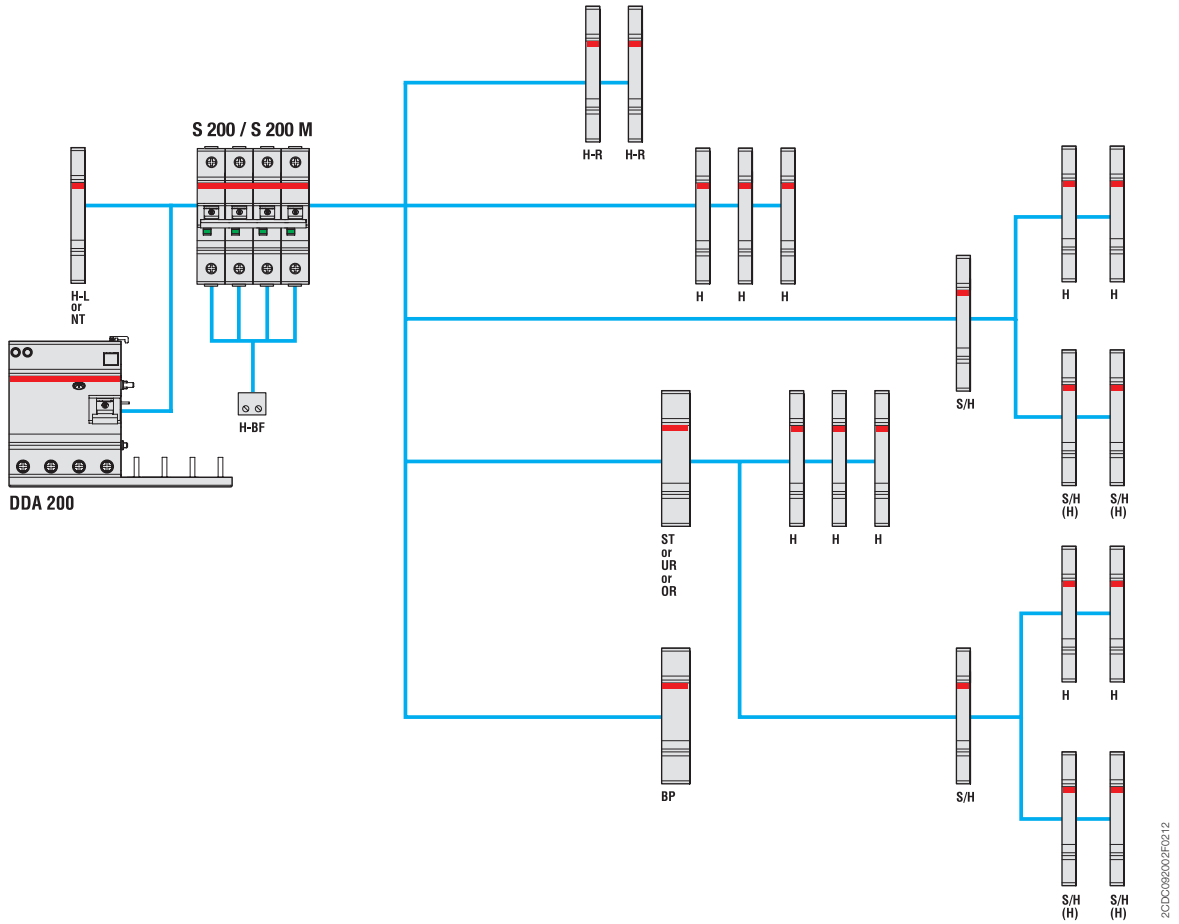
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# Auxiliary elements and accessories for MCBs and RCDs
## Selection tables



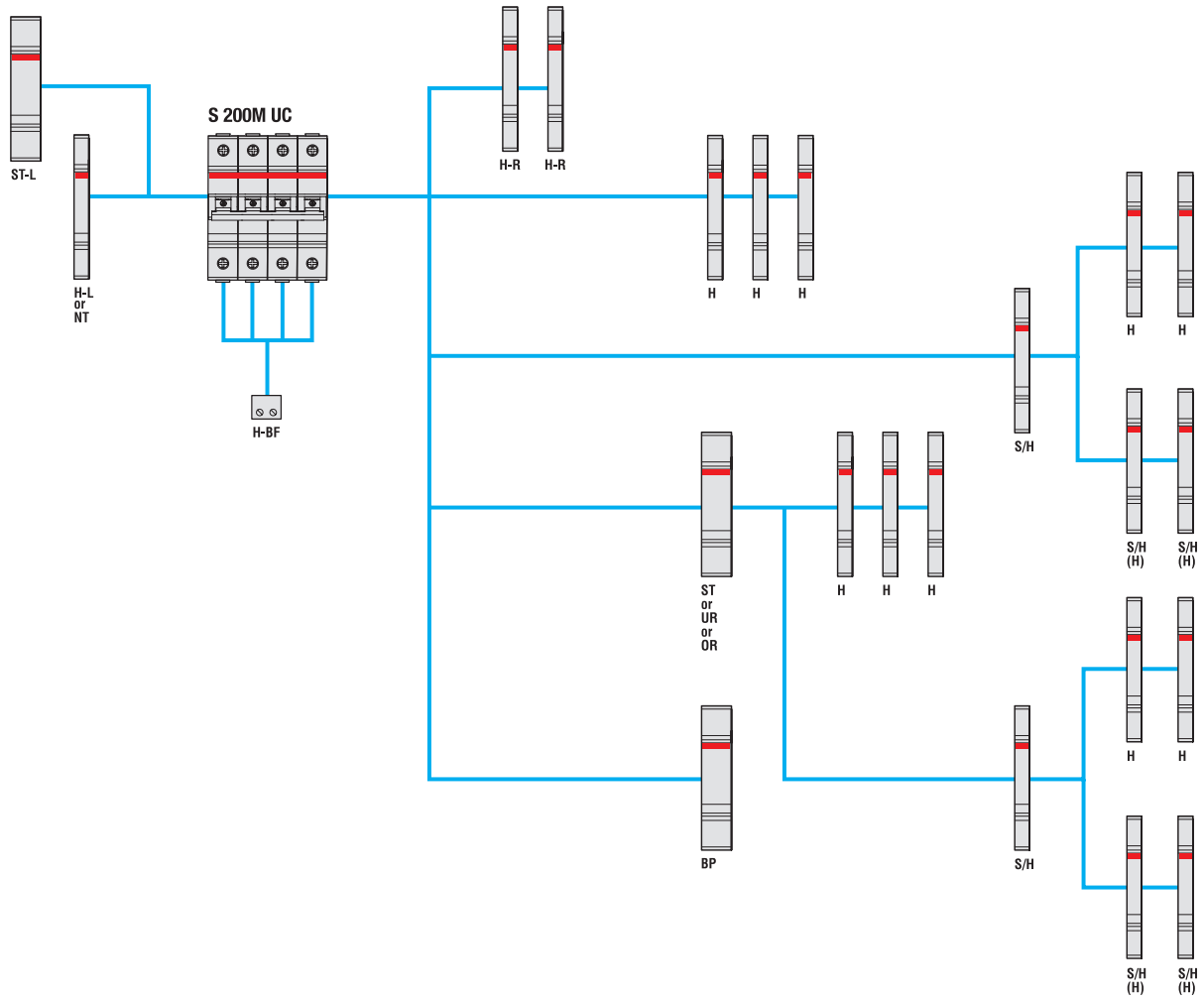
### Combination of auxiliary elements with S200, S200M, S200P, DDA200 + S200 or DS200 (for S200 80-100A no combination with DDA)




| | | |
|---|---|---|
| **H** | Auxiliary contact | S2C-H6R |
| **H-R** | Auxiliary contact | S2C-H6-...R |
| **S/H** | Signal/Auxiliary contact | S2C-S/H6R |
| **S/H (H)** | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| **ST** | Shunt trip for S 200 MCB | S2C-A... |
| **UR** | Undervoltage release | S2C-UA |
| **OR** | Overvoltage release | S2C-OVP |
| **H-L** | Auxiliary contact for S 200 MCBs to be mounted on the left | S2C-H...L |
| **H-BF** | Auxiliary contact for MCBs bottom fitting (1 for each pole of MCB) | S2C-H01/S2C-H10 |
| **BP** | Mechanical tripping device | S2C-BP |
| **NT** | Switched neutral | S2C-Nt |

In case of using rotary operating mechanism S2C-DH (only right side mountable) the auxiliary devices left side and bottom fitting auxiliary contact could be used.

## Combination of auxiliary elements with S200M, S200MUC

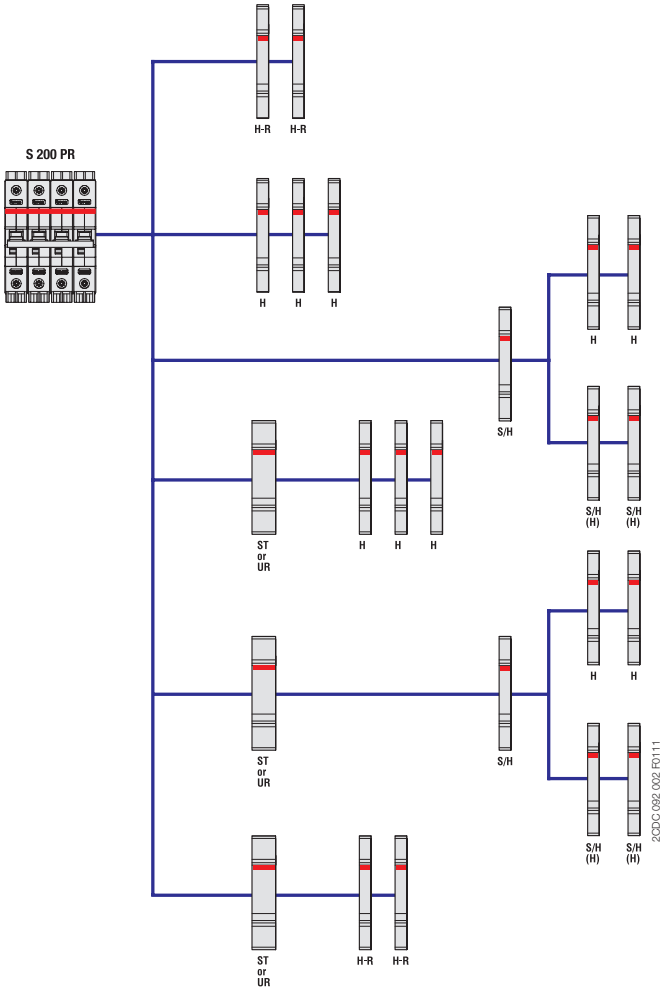



| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| H-R | Auxiliary contact | S2C-H6-...R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| ST | Shunt trip for S 200 MCB | S2C-A... |
| ST-L | Shunt trip to be mounted on the left | |
| UR | Undervoltage release | S2C-UA |
| OR | Overvoltage release | S2C-OVP |
| H-L | Auxiliary contact for S 200 MCBs to be mounted on the left | S2C-H...L |
| H-BF | Auxiliary contact for MCBs bottom fitting (1 for each pole of MCB) | S2C-H01/S2C-H10 |
| BP | Mechanical tripping device | S2C-BP |
| NT | Switched neutral | S2C-Nt |

# Auxiliary elements and accessories for MCBs and RCDs
## Selection tables

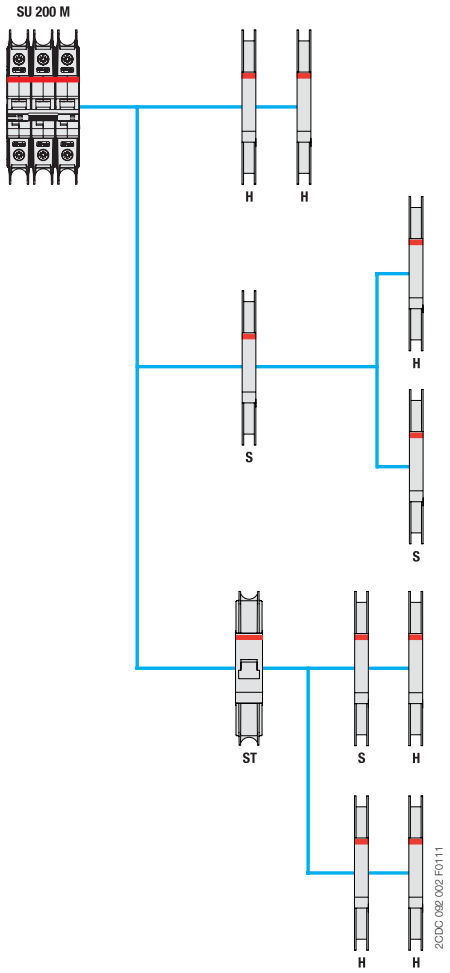


### Combination of auxiliary elements with S200PR



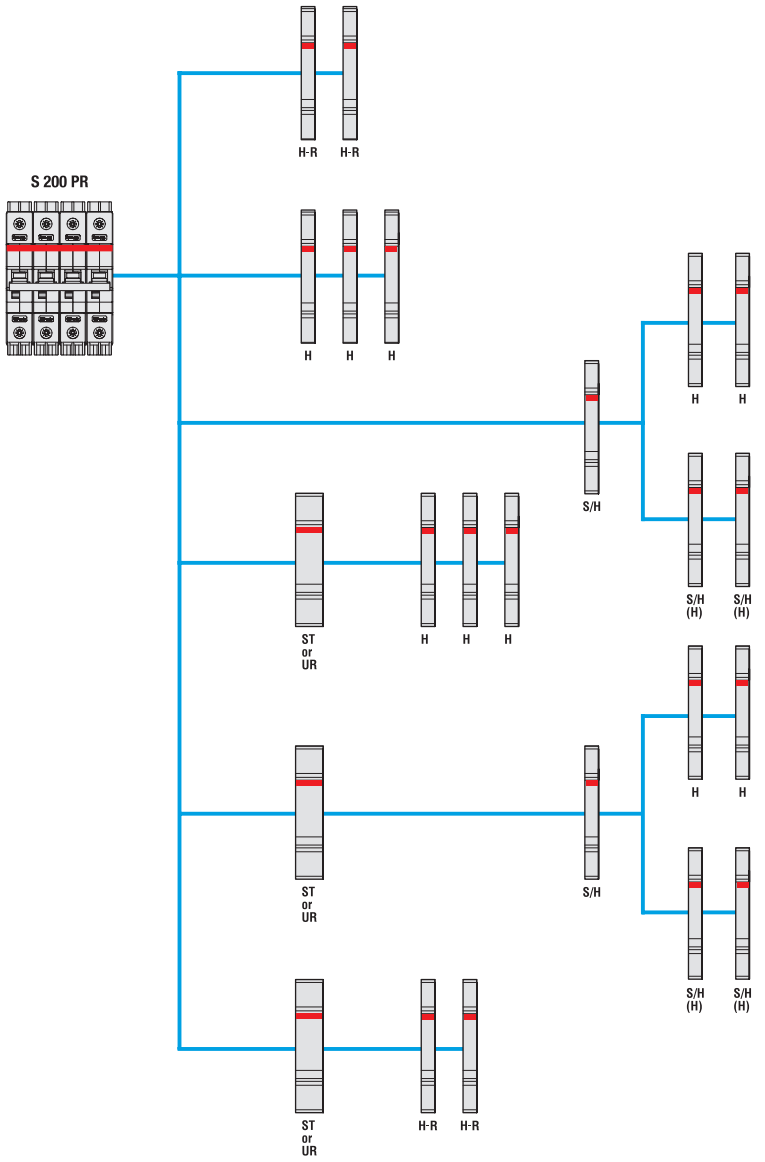

| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| H-R | Auxiliary contact | S2C-H6-...R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| ST | Shunt trip | S2C-A... |
| UR | Undervoltage release | S2C-UA |

### Combination of auxiliary elements with SU200M and S200UDC, SU200PR




| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6RU |
| S | Signal contact | S2C-S6RU |
| ST | Shunt trip | S2C-A...U |

## Combination of auxiliary elements with S200P

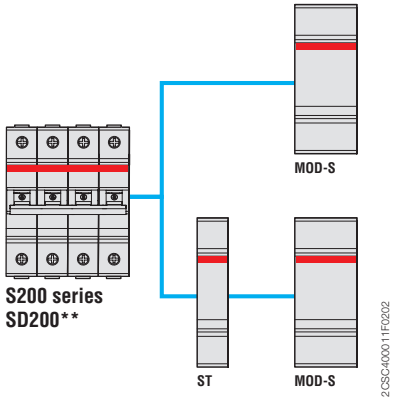



| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| H-R | Auxiliary contact | S2C-H6-...R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| ST | Shunt trip | S2C-A... |
| UR | Undervoltage release | S2C-UA |

# Auxiliary elements and accessories for MCBs and RCDs
## Selection tables



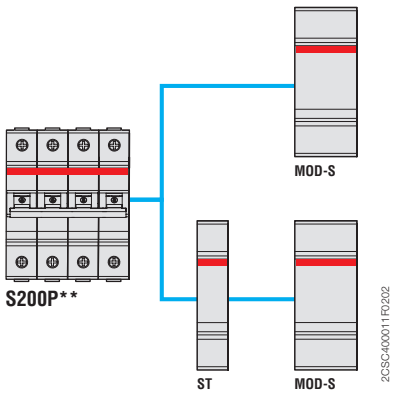
### Combination of S200/SD200 with motor operating device




| | | |
|---|---|---|
| ST | Shunt trip for S 200 MCB | S2C-A... |
| MOD-S* | Motor operating device | S2C-CM... |

* in case of using S 200 coupled with DDA 200, MOD-S doesn't operate in case of earth-leakage fault
For S200 80-100A no combination with MOD
** S200 series MCBs and SD200 switch disconnectors up to 3P or 2P+ST can be coupled with MOD-S

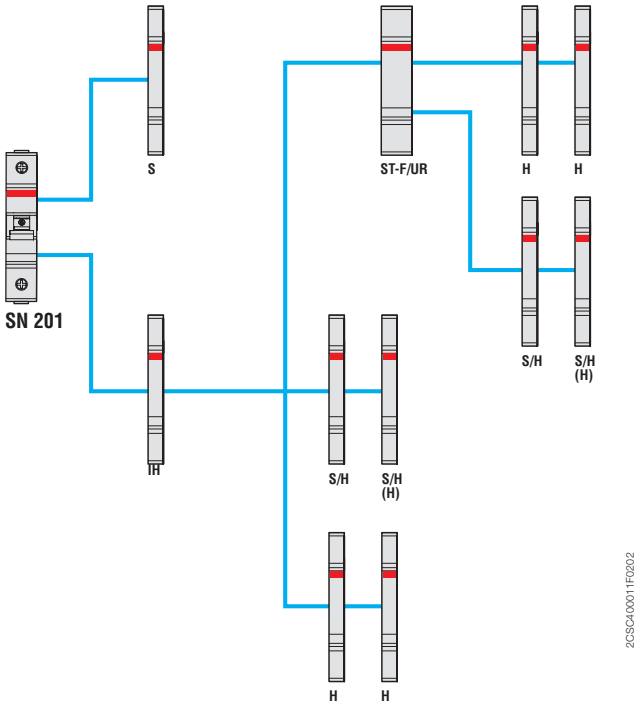
### Combination of S200P with motor operating device




| | | |
|---|---|---|
| ST | Shunt trip for S 200 MCB S | S2C-A... |
| MOD-S* | Motor operating device | S2C-CM... |

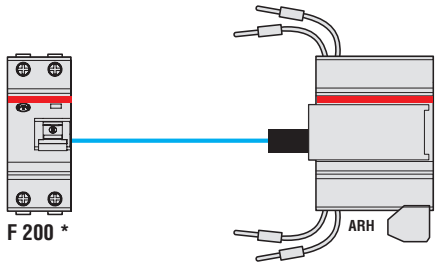
* in case of using S 200 coupled with DDA 200, MOD-S doesn't operate in case of earth-leakage fault
** S200P MCBs in all poles variants can be coupled with MOD-S

### Combination of auxiliary elements with SN201




| | | |
|---|---|---|
| IH | Coupling interface/ auxiliary contact | SN201-IH |
| S | Signal contact | SN201-S |
| H | Auxiliary contact | S2C-H6R |
| S/H | Signal/auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/auxiliary contact used as auxiliary contact | S2C-S/H6R |
| ST-F | Shunt trip of F200 RCD | F2C-A |
| UR | Undervoltage release | S2C-UA |

## Combination of home automatic resetting unit with F200

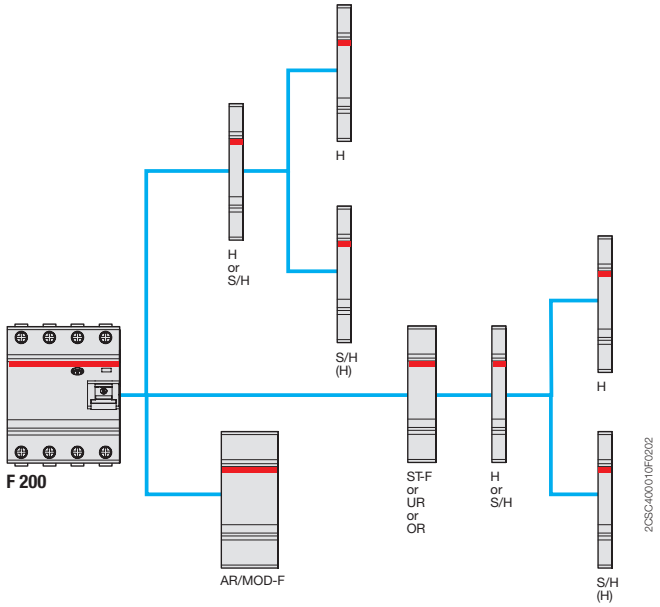



2CSC400011F0202

| | | |
|---|---|---|
| ARH | Home automatic resetting unit | F2C-ARH |

* F 202 30 mA or 100 mA (depending on ARH model), max 63 A

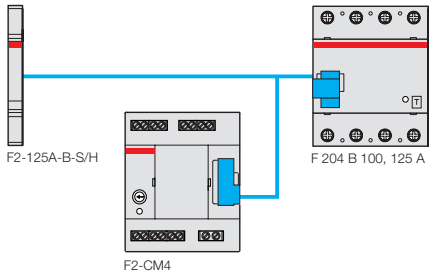
## Combination of auxiliary elements with F200




2CSC400010F0202

| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| UR | Undervoltage release | S2C-UA |
| OR | Overvoltage release | S2C-OVP |
| AR | Auto reclosing unit | F2C-ARI |
| MOD-F | Motor operating device | F2C-CM |
| ST-F | Shunt trip for F 200 RCCB | F2C-A |

## F200 B high ratings

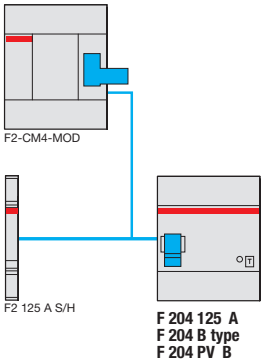



| | |
|---|---|
| F2-125A-B-S/H | Signal/Auxiliary contact |
| F2-CM4-MOD | |

# Auxiliary elements and accessories for MCBs and RCDs
## Selection tables

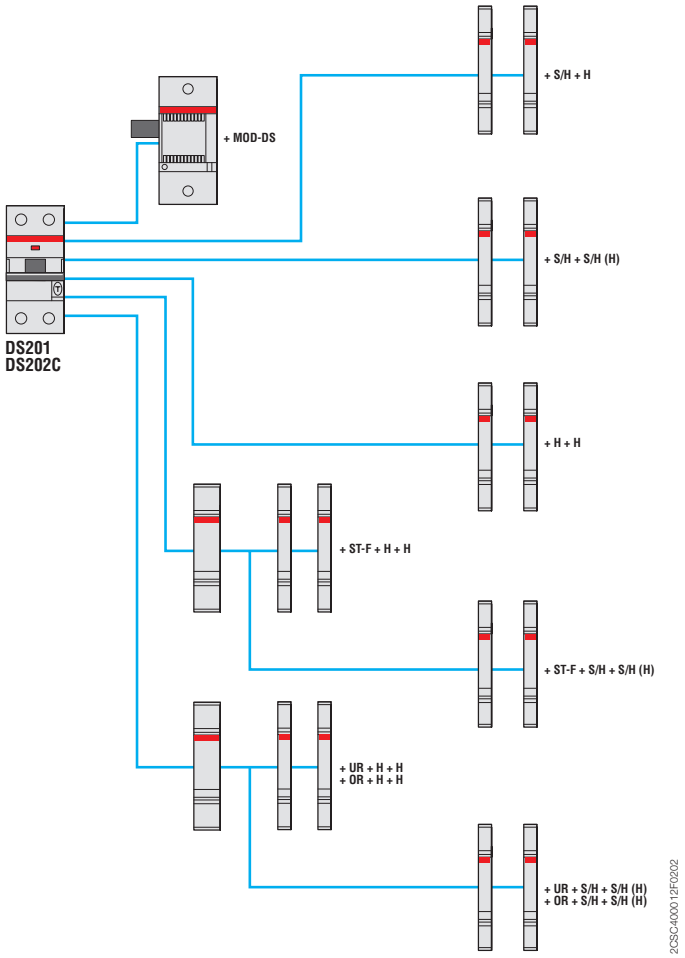


### Combination of auxiliary elements with F204 125 A, B type, PV B




| | |
|---|---|
| F2-125A-B-S/H | Signal/Auxiliary contact |
| F2-CM4-MOD | Motor operating device |

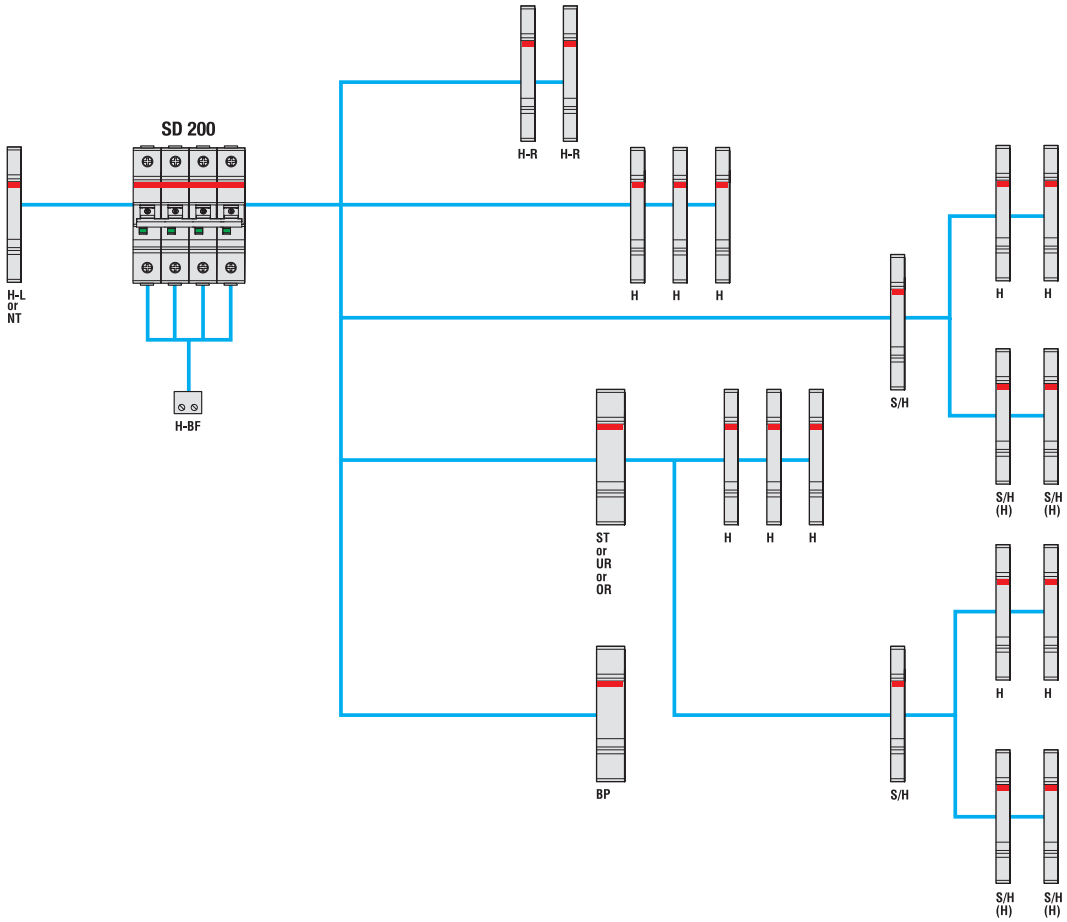
### Combination of auxiliary elements with DS201, DS202C




| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| ST-F | Shunt trip for F 200 RCCB | F2C-A |
| UR | Undervoltage release | S2C-UA |
| OR | Overvoltage release | S2C-OVP |
| MOD-DS | Motor operating device | DS2C-CM |

# Auxiliary elements and accessories for Switch Disconnectors SD 200
## Selection tables

### Combination of auxiliary elements with SD200




| | | |
|---|---|---|
| H | Auxiliary contact | S2C-H6R |
| H-R | Auxiliary contact | S2C-H6-...R |
| S/H | Signal/Auxiliary contact | S2C-S/H6R |
| S/H (H) | Signal/Auxiliary contact used as auxiliary contact | S2C-S/H6R |
| NT | Switched neutral | S2C-Nt |
| MOD-S | Motor operating device | S2C-CM |
| OR | Overvoltage release | S2C-OVP |
| BP | Mechanical tripping device | S2C-BP |
| ST | Shunt trip | S2C-A... |
| UR | Undervoltage release | S2C-UA |

# Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200 and Switch Disconnectors SD 200 series




**Auxiliary elements**

4

| Auxiliary contact and signal/auxiliary contact | | |
|---|---|---|
| | | **S2C-S/H6R, S2C-H6R, S2C-H11L, S2C-H20L and S2C-H02L** |
| Utilization category | | AC14 1A/400V, 2A/230V - DC12 1A/220V, 1,5A/110V - DC13 2A/60V, 4A/24V |
| Conventional free air thermal current | A | 10 |
| Min. operational current/voltage* | | 10 mA at 12 V; 5 mA at 24 V |
| Rated conditional short-circuit current | V | 230 V AC 1,000 A with S201 K4 |
| Overvoltage category | | III |
| Rated impuls withstand voltage (1.2/50µs) | kV | 4 |
| Cross-section of conductors | $mm^2$ | 0.75…2.5 (up to 2 x 1.5 $mm^2$ for S2C-H11L, S2C-H20L and S2C-H02L) |
| Tightening torque | Nm | 1.2 (max. 0.8 for S2C-H11L, S2C-H20L and S2C-H02L) |
| Contact stability in vibration test according to IEC/EN 60 068-2-6 | | 5g, 20 sweep cycles 5…150…5 Hz at 24 V AC/DC, 5 mA automatic reclosing < 10 ms |
| Mechanical service life | | 10000 operations |
| Dimensions (H x D x W) | mm | 85 x 69 x 8.8 |

| Auxiliary contact and signal/auxiliary contact | | |
|---|---|---|
| | | **S2C-H6-11R, S2C-H6-20R, S2C-H6-02R** |
| Utilization category | | AC14: 1A/400V, 2A/230V<br>DC12/DC13: 1A/50V, 2A/30V |
| Conventional free air thermal current | A | 10 |
| Min. rated operational current/voltage* | | 10 mA at 12 V; 5 mA at 24 V |
| Rated conditional short-circuit current | V | 230 V AC 1,000 A with S201 K4 |
| Overvoltage category | | III |
| Rated impuls withstand voltage (1.2/50µs) | kV | 4 |
| Cross-section of conductors | $mm^2$ | 0.75…2.5 |
| Tightening torque | Nm | 1.2 |
| Contact stability in vibration test according to IEC/EN 60068-2-6 | | 5g. 20 sweep cycles 5...150...5 Hz at 24 V AC/DC. 5mA automatic reclosing < 10 ms |
| Mechanical service life | | 10000 operations |
| Dimensions (H x D x W) | mm | 85 x 69 x 8.8 |

* ensures safe contacting without current interruption by pollution layer



S2C-S/H6R



S2C-H6-...

## Signal/auxiliary contacts

Signal contacts indicate if a device tripped due to a failure (overcurrent/short-circuit for MCBs and RCBOs; earth fault for RCCBs and RCBOs).
Auxiliary contacts indicate the position of the contacts, independent if a failure occurred or the device was operated manually.

**S2C-S/H6R**: choice through a selector between signal and auxiliary contact.

**S2C-H6R and S2C-HxxR:** Auxiliary contacts with contact configuration according the following table.
All right-side mounted contacts are suitable for MCBs, RCDs and switch disconnectors SD200 according the “Selection tables” which are displayed in the beginning of chapter 4.

**S2C-HxxL:** Auxiliary contacts with contact configuration according the following table. These contacts are left-side mounted and fit to S200 MCBs and switch disconnertors SD200 according the “Selection tables” which are displayed in the beginning of chapter 4. Especially when using a motor operating device this is a possibility to add a contact as the right side mounted ones do not fit within this combination.

**S2C-Hxx:** Unique bottom-fitting contact for the S200 compact range and SD200 switch disconnectors. Simple and space-saving solution. Also intended for retrofitting.

| Description | Bbn 4016779<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Signal contact/ auxiliary switch 1CO | 563819 | S2C-S/H6R | 2CDS200922R0001 | | 0.04 | 1 |
| Auxiliary contact 1CO | 563826 | S2C-H6R | 2CDS200912R0001 | | 0.04 | 1 |
| Auxiliary contact 1NO/1NC | 697941 | S2C-H6-11R | 2CDS200946R0001 | | 0.04 | 1 |
| Auxiliary contact 2NO | 697958 | S2C-H6-20R | 2CDS200946R0002 | | 0.04 | 1 |
| Auxiliary contact 2NC | 697965 | S2C-H6-02R | 2CDS200946R0003 | | 0.04 | 1 |

## Auxiliary contacts mounting on the left side

| Description | Bbn 4016779<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Auxiliary contact 1 NO/1NC | 648820 | S2C-H11L | 2CDS200936R0001 | | 0.04 | 1 |
| Auxiliary contact 2 NO | 648837 | S2C-H20L | 2CDS200936R0002 | | 0.04 | 1 |
| Auxiliary contact 2 NC | 648844 | S2C-H02L | 2CDS200936R0003 | | 0.04 | 1 |

# Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200 and Switch Disconnectors SD 200 series




S2C-H

4

| Bottom-fitting auxiliary contact | | |
|---|---|---|
| | | **S2C-H10 and S2C-H01** |
| Conventional free air thermal current | A | 7.5 |
| Utilization category | | AC14 2A/230V - DC 12 identical DC13 1A /50V, 2A/30V |
| Min. operational current/voltage* | V | 10 mA at 12 V AC/DC |
| Rated conditional short-circuit current | | 230 VAC 1000 A, fault protection with S 201-K2 or Z2 |
| Tightening torque | Nm | 0.5 |
| Cross-section of conductors | $mm^2$ | 0.75 to 2.5 |
| Mechanical service life | | 10000 operations |
| Dimensions (HxDxW) | | 19 x 17 x 17.5 |

* ensures safe contacting without current interruption by pollution layer

## Bottom-fitting auxiliary contacts for S 200, S 200 M, S 200 P, S 200 S, SD 200

| Description | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 NC | 64551 5 | S 2C-H01 | 2CDS 200 970 R0001 | | 0.01 | 1 |
| 1 NO | 64552 2 | S 2C-H10 | 2CDS 200 970 R0002 | | 0.01 | 1 |

| packing unit 15 parts | | | | | | |
|---|---|---|---|---|---|---|
| **Description** | **Bbn 4016779 EAN** | **Order details Type code** | **Order code** | **Price 1 piece** | **Weight 1 piece kg** | **Pack unit pc.** |
| 1 NC | 64677 2 | S 2C-H01 15x | 2CDS 200 970 R0011 | | 0.01 | 15 |
| 1 NO | 64681 9 | S 2C-H10 15x | 2CDS 200 970 R0012 | | 0.01 | 15 |

## Auxiliary contact bridge for bottom-fitting auxiliary contacts

Wire jumper for integrated auxiliary contact S2C-H01/S2C-H10 for series connections (HKB) or parallel connections (HKB1).

| Description | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1/2 mod. | 523134 | HKB | GH V036 0504 R0100 | | 0.001 | 1000 |
| 1 mod. | 524209 | HKB 1 | GH V036 0504 R0101 | | 0.001 | 1000 |

| Signal and auxiliary contacts | | | |
|---|---|---|---|
| | | **SN201-S** | **SN201-IH** |
| Terminals | $mm^2$ | 2x1,5 | |
| Tightening torque | N | 1.2 | |
| Dimensions | mm | H: 85 x D: 68 x W: 8.9 | H: 85 x D: 68,7 x W: 8.9 |
| Rated voltage | V | 230 | |
| Rated current | A | 2 | |




SN201-S

| Utilization category / contact capacity | | | | |
|---|---|---|---|---|
| | SN201-S, SN201-IH | | | |
| AC14 | Ue | V | 400 | 230 |
| | Ie | A | 1 | 2 |
| DC12 | Ue | V | 220 | 110 |
| | Ie | A | 1 | 1,5 |
| DC13 | Ue | V | 60 | 24 |
| | Ie | A | 2 | 4 |






SN201-IH

## Signal contact for SN201 MCBs

Function: indication of the device contact positions only after the automatic release of the MCBs due to overcurrent.

| Description | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Signal contact 1CO | 104957 | SN201-S | 2CSS200924R0001 | | 0.040 | 1 |

## Auxiliary contact / interface module for SN201 MCBs

Function: indication of the device contact positions. The auxiliary contact can be used as an interface module between SN201 and other compact auxiliary elements.

| Description | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Interface module/Aux. Contact 1CO | 104858 | SN201-IH | 2CSS200923R0001 | | 0.050 | 1 |

| Signal and auxiliary contacts for F 200 125A and F 200 B | | | |
|---|---|---|---|
| | | | F2 125A-S/H |
| Rated current | AC | A | 6 |
| | DC | A | 1 |
| Min. rated voltage Ub min | AC | V | 230 |
| | DC | V | 110 |
| Connection cross section | | $mm^2$ | 1...1.5 |
| Tightening torque | | Nm | 0.8 |
| Dimensions (H x D x W) | | mm | 85 x 69 x 8.8 |



F2-125A-B-S/H

## Auxiliary/Signal contact for F 200 125A and F 200 B

Function: choice through a selector between indication of the position of the device's contacts and signalling of the earth fault. Suitable for RCCBs F 200 125A and F 200 B series

| Description | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Auxiliary/Signal contact 1CO+1NC | 600527 | F2-125A-B-S/H | 2CSF200922R0001 | | 0.04 | 1 |

## Clamping cover for F200 125A-F200 B type

| Description | Bbn 4016779 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 999638 | CPV B | 2CSF200988R0001 | | | 1 |

# Auxiliary elements for
# MCBs S 200, SN 201, RCDs F 200, DS 200 and Switch Disconnectors SD 200 series




S2C-A

4

| Shunt trip for S 200 MCBs | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | **S2C-A1** | | | | | | |
| Rated voltage | AC | V | 12…60 | | | | | | |
| | DC | V | 12…60 | | | | | | |
| Max release duration | | ms | <10 | | | | | | |
| Min. release voltage | AC | V | 7 | | | | | | |
| | DC | V | 10 | | | | | | |
| Power consumption | Ub | V | 12 DC | 12 AC | 24 DC | 24 AC | 60 DC | 60 AC | |
| | Ib max | A | 2.2 | 2.5 | 4.5 | 5 | 14 | 8.8 | |
| Coil resistance | | Ω | 3.7 | | | | | | |
| Terminals | | | Fale-safe bi-directional cylinder-lift-terminal | | | | | | |
| Tightening torque | | Nm | 2.8 | | | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 17.5 | | | | | | |
| | | | **S2C-A2** | | | | | | |
| Rated voltage | AC | V | 110…415 | | | | | | |
| | DC | V | 110…250 | | | | | | |
| Max release duration | | ms | <10 | | | | | | |
| Min. release voltage | AC | V | 55 | | | | | | |
| | DC | V | 80 | | | | | | |
| Power consumption | Ub | V | 110 DC | 110 AC | 220 DC | 230 AC | 415 AC | | |
| | Ib max | A | 0.4 | 0.5 | 1.1 | 1.0 | 2.7 | | |
| Coil resistance | | Ω | 225 | | | | | | |
| Terminals | | | Fale-safe bi-directional cylinder-lift-terminal | | | | | | |
| Tightening torque | | Nm | 2.8 | | | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 17.5 | | | | | | |

## Shunt trips

Function: remote opening of the device when a voltage is applied. Suitable for MCBs S 200 series, RCBOs DS 200 series, SD 200 switch disconnectors series.
Shunt trips use a coil like MCBs for tripping. To trip a shunt it is necessary to choose the right voltage and make sure the corresponding Ibmax (as mentioned in the table above) is provided by the power supply used. If the power supply can provide higher currents the shunt trip will reduce the current to Ibmax due to its internal resistance.
As soon as the shunt tripped, the contact inside is open – the electrical circuit is disconnected even if the shunt trip is still powered on. The free-tripping mechanism of the shunt trip allows a restart of the MCB only after the shunt trip gets no external release signal anymore.

| Rated voltage | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| AC/DC 12…60 V | 570992 | S2C-A1 | 2CDS200909R0001 | | 0.15 | 1 |
| AC 110…415 V/DC110…250 V | 571005 | S2C-A2 | 2CDS200909R0002 | | 0.15 | 1 |




F2C-A

## Shunt trip for F 200 RCCBs

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **F2C-A1** | | | | |
| Rated voltage | AC | V | 12...60 | | | | |
| | DC | V | 12...60 | | | | |
| Max release duration | | ms | 10 | | | | |
| Min. release voltage | AC | V | 6 | | | | |
| | DC | V | 4.5 | | | | |
| Consumption on release | Ub | V | 12 DC | 12 AC | 24 DC | 60 DC | 60 AC |
| | Ib max | A | 0.88 | 0.65 | 1.58 | 5.8 | 5 |
| Coil resistance | | Ω | 5.5 | | | | |
| Terminals | | $mm^2$ | 2x1.5 | | | | |
| Tightening torque | | Nm | 0.2 | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 17.5 | | | | |
| | | | **F2C-A2** | | | | |
| Rated voltage | AC | V | 110...415 | | | | |
| | DC | V | 110...250 | | | | |
| Max release duration | | ms | 10 | | | | |
| Min. release voltage | AC | V | 75 | | | | |
| | DC | V | 55 | | | | |
| Consumption on release | Ub | V | 110 DC | 110 AC | 250 DC | 415 AC | |
| | Ib max | A | 0.05 | 0.03 | 0.1 | 0.16 | |
| Coil resistance | | Ω | 1355 | | | | |
| Terminals | | $mm^2$ | 2x1.5 | | | | |
| Tightening torque | | Nm | 0.2 | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 17.5 | | | | |

Function: remote opening of the device when a voltage is applied. Suitable for RCCBs F 200 series and RCBOs DS201 and DS202C.
It can be used with MCBs SN201 series by means of SN201-IH interface module.

| Rated voltage | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| AC/DC 12...60V | 974901 | F2C-A1 | 2CSS200933R0011 | | 0.15 | 1 |
| AC 110...415V / DC 110...250V | 975007 | F2C-A2 | 2CSS200933R0012 | | 0.15 | 1 |

# Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200 and Switch Disconnectors SD 200 series




S2C-UA

4

| Undervoltage release | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | S2C-UA 12 DC | S2C-UA 24 AC | S2C-UA 24 DC | S2C-UA 48 AC | S2C-UA 48 DC |
| Standards | | | IEC/EN 60947-1 | | | | |
| Rated voltage | AC | V | | 24 | | 48 | |
| | DC | V | 12 | | 24 | | 48 |
| Frequency | | Hz | 50…60 | | | | |
| Release trip | | V | 0.35 Un ≥ V ≥ 0.7 Un | | | | |
| Terminals | | $mm^2$ | 2x1.5 | | | | |
| Consumption | | VA | 2.2 | 3.6 | 2 | 3.6 | 2.1 |
| Resistance to corrosion | | °C/ RH | constant atmosphere: 23/83 - 40/93 - 55/20; variable atmosphere: 25/95 - 40/93 | | | | |
| Protection degree | | | IPXXB/IP2X | | | | |
| Tightening torque | | Nm | 0.4 | | | | |
| Dimensions (H x D x W) | | mm | 85 x 69 x 17.5 | | | | |
| | | | S2C-UA 110 AC | S2C-UA 110 DC | S2C-UA 230 AC | S2C-UA 230 DC | S2C-UA 400 AC |
| Standards | | | IEC/EN 60947-1 | | | | |
| Rated voltage | AC | | 110 | | 230 | | 400 |
| | DC | | | 110 | | 230 | |
| Frequency | | | 50…60 | | | | |
| Release trip | | | 0.35 Un M V M 0.7 Un | | | | |
| Terminals | | | 2x1.5 | | | | |
| Consumption | | | 3.5 | 2.2 | 3.7 | 2.3 | 2.4 |
| Resistance to corrosion | | | constant atmosphere: 23/83 - 40/93 - 55/20; variable atmosphere: 25/95 - 40/93 | | | | |
| Protection degree | | | IPXXB/IP2X | | | | |
| Tightening torque | | | 0.4 | | | | |
| Dimensions (H x D x W) | | | 85 x 69 x 17.5 | | | | |

## Undervoltage releases

Function: protection of the load in the event of a voltage drop (between 70% and 35% of its rated value); positive safety (device's tripping when the voltage is disconnected) emergency stop by means of a button. Suitable for MCBs S 200 series, RCCBs F200 series and RCBOs DS201, DS202C, DS 200 series, SD 200 switch disconnectors series. It can be used with MCBs SN201 series by means of SN201-IH interface module.

| Rated voltage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 12VDC | 839705 | S2C-UA 12 DC | 2CSS200911R0001 | | 0.09 | 1 |
| 24VAC | 839804 | S2C-UA 24 AC | 2CSS200911R0002 | | 0.09 | 1 |
| 24VDC | 896401 | S2C-UA 24 DC | 2CSS200911R0007 | | 0.09 | 1 |
| 48VAC | 839903 | S2C-UA 48 AC | 2CSS200911R0003 | | 0.09 | 1 |
| 48VDC | 896500 | S2C-UA 48 DC | 2CSS200911R0008 | | 0.09 | 1 |
| 110VAC | 840008 | S2C-UA 110 AC | 2CSS200911R0004 | | 0.09 | 1 |
| 110VDC | 896609 | S2C-UA 110 DC | 2CSS200911R0009 | | 0.09 | 1 |
| 230VAC | 840107 | S2C-UA 230 AC | 2CSS200911R0005 | | 0.09 | 1 |
| 230VDC | 896708 | S2C-UA 230 DC | 2CSS200911R0010 | | 0.09 | 1 |
| 400VAC | 840206 | S2C-UA 400 AC | 2CSS200911R0006 | | 0.09 | 1 |




S2C-OVP




S2C-Nt

| Overvoltage release | | | | |
|---|---|---|---|---|
| | | | S2C - OVP2 | S2C - OVP1 |
| Rated voltage | | VAC | 230 | |
| Rated frequency | | Hz | 50 | |
| Max non-tripping voltage AC | | V | 253 | |
| Max tripping voltage AC | | V | 290 | 275 |
| Tripping time | @ 290V AC | s | t<1 | |
| | @ 380V AC | s | t<0.1 | |
| Peak current | @ 315V AC | A | 1 | |
| | @ 440V AC | A | 1.8 | |
| Max duration of impulse command | | ms | 7 | |
| Operating temperature | | °C | -5....+40 | |

## Overvoltage releases

Function: monitoring voltage between the neutral and phase; when an overvoltage reaches the threshold value, the OVP device causes the tripping of the associated MCB or RCCB.
Suitable for MCBs of the S200 series up to 63 A, and RCCBs of the F200 series up to 100 A and RCBOs DS201 and DS202C series. Suitable for SD 200 switch disconnectors series.

| Description | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Overvoltage release (max tripping voltage AC: 275V) | 748137 | S2C-OVP1 | 2CSS200910R0005 | | 0.100 | 1/5 |
| Overvoltage release (max tripping voltage AC: 290V) | 952039 | S2C-OVP2 | 2CSS200993R0005 | | 0.100 | 1/5 |

| Hand operated neutral left side mounted | | |
|---|---|---|
| | | S2C-Nt |
| Rated current | A | max. 40 |
| Terminal | $mm^2$ | 10; cage terminal |
| Tightening torque | Nm | 1.2 |
| Dimensions (H x D x W) | mm | 85 x 69 x 8.8 |

## Hand operated neutral

The hand operated neutral has to be mounted to the left side of the MCB and be snaped on the DIN rail. It is used for measuring duties where the neutral conductor must be in the open position. Due to the special design of the handle - when switching ON the MCB – the neutral will make before the MCB is closed. Suitable for SD 200 switch disconnectors series.
The S2C - Nt is not to switch with a tool (screw driver).

| Description | Bbn 4016779 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Max 40A | 647625 | S2C-Nt | 2CDS200918R0001 | | 0.06 | 1 |

# Auxiliary elements for
# MCBs S 200, SN 201, RCDs F 200, DS 200 and Switch Disconnectors SD 200 series




S 2C-S6R U






S 2C-H6R U

## Auxiliary contact and signal contact

| | | S2C-H6R U, S2C-S6RU |
|---|---|---|
| Rating according UL 489 / CSA22-2 No.5 | | 1A / 480 VAC<br>2A / 277 VAC<br>1.5 A / 125 VDC<br>2A / 60 VDC<br>4 A / 24 VDC |
| Conventional free air thermal current | A | 10 |
| Min. operational current/voltage* | | 10 mA at 12 V; 5 mA at 24 V |
| Rated conditional short-circuit current | V | 230 V AC 1,000 A with S201 K4 |
| Overvoltage category | | III |
| Rated impuls withstand voltage (1.2/50µs) | kV | 4 |
| Cross section of conductors | $mm^2$ | 0.75…2.5 |
| Tightening torque | Nm | 1.2 |
| Contact stability in vibration test according to IEC/EN60068-2-6 | | 5g, 20 sweep cycles 5…150…5 Hz according to DIN IEC 68-2-6 at 24 V AC/DC, 5 mA automatic reclosing < 10 ms |
| Mechanical service life | | 10000 operations |
| Dimensions (H x D x W) | mm | 100 x 69 x 8.8 |

* ensures safe contacting without current interruption by pollution layer.

## Accessories for S 200 U/S 200 UP/S 200 UDC

### Auxiliary contact (switch)

| Description | Bbn 4016779 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| only for range U/UP/UDC | 61561 7 | S 2C-H6R U | 2CDS 200 914 R0001 | | 0.035 | 1 |

### Signal contact (bell alarm)

| Description | Bbn 4016779 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| only for range U/UP/UDC | 64677 2 | S 2C-S6R U | 2CDS 200 924 R0001 | | 0.035 | 1 |




S 2C-A1 U

## Shunt trip

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | **S2C-A1 U** | | | | | |
| Rated voltage | AC | V | 12…60 | | | | | |
| | DC | V | 12…60 | | | | | |
| Max release duration | | ms | <10 | | | | | |
| Min. release voltage | AC | V | 7 | | | | | |
| | DC | V | 10 | | | | | |
| Power consumption | Ub | V | 12 DC | 12 AC | 24 DC | 24 AC | 60 DC | 60 AC |
| | Ib max | A | 2.2 | 2.5 | 4.5 | 5 | 14 | 8.8 |
| Coil resistance | | Ω | 3.7 | | | | | |
| Terminals | | | Fale-safe bi-directional cylinder-lift-terminal | | | | | |
| Tightening torque | | Nm | 2.8 | | | | | |
| Dimensions (H x D x W) | | mm | 100 x 69 x 17.5 | | | | | |
| | | | **S2C-A2 U** | | | | | |
| Rated voltage | AC | V | 110…415 | | | | | |
| | DC | V | 110…250 | | | | | |
| Max release duration | | ms | <10 | | | | | |
| Min. release voltage | AC | V | 55 | | | | | |
| | DC | V | 80 | | | | | |
| Power consumption | Ub | V | 110 DC | 110 AC | 220 DC | 230 AC | 415 AC | |
| | Ib max | A | 0.4 | 0.5 | 1.1 | 1.0 | 2.7 | |
| Coil resistance | | Ω | 225 | | | | | |
| Terminals | | | Fale-safe bi-directional cylinder-lift-terminal | | | | | |
| Tightening torque | | Nm | 2.8 | | | | | |
| Dimensions (H x D x W) | | mm | 100 x 69 x 17.5 | | | | | |

## Shunt trip only for range U/UP/UDC

| Description | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 12 - 60 V AC/DC | 64472 3 | S 2C-A1 U | 2CDS 200 908 R0001 | | 0.15 | 1 |
| 110-415 V AC,110-250V DC | 64473 0 | S 2C-A2 U | 2CDS 200 908 R0002 | | 0.15 | 1 |

# Accessories for
# MCBs, RCDs and Switch Disconnectors




S 2C-TC20 U

| IP20 Terminal cover | | | | | | |
|---|---|---|---|---|---|---|
| **Description** | **Bbn 4016779** | **Order details** | | **Price 1 piece** | **Weight 1 piece** | **Pack unit** |
| | **EAN** | **Type code** | **Order code** | | **kg** | **pc.** |
| only for range U/UP/UDC | 87756 5 | S 2C-TC20 U | 2CDS 200 917 R0001 | | 0.0002 | 20 |






S 2C-BP

## Mechanical tripping device

Function: it causes the automatic tripping of the circuit-breakers which it is associated to, when the panel or the door of the electrical switchboard are opened or removed.
Suitable for MCBs S 200 series (on both sides of the devices) and for DS 200 (only on the right side, because on the left side there's RCD-block DDA 200). Suitable for SD 200 switch disconnectors series.

| **Rated voltage** | **Bbn 8012542** | **Order details** | | **Price 1 piece** | **Weight 1 piece** | **Pack unit** |
|---|---|---|---|---|---|---|
| | **EAN** | **Type code** | **Order code** | | **kg** | **pc.** |
| Mechanical tripping device | 941309 | S2C-BP | 2CSS200998R0001 | | 0.048 | 1 |

## Plug-in base

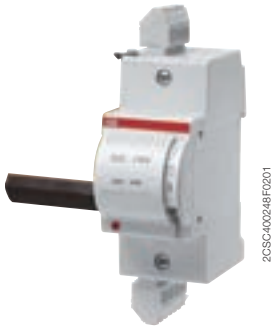
Function: it is possible to transform a standard circuit-breaker of the S 200 and F 200 range in a plug-in device which can be pulled out of the circuit where it is installed in one operation.
Suitable for MCBs S 200 series and for RCCBs F 200 series up to 63 A and RCBOs DS201 and DS202C.

| **Rated voltage** | **Bbn 8012542** | **Order details** | | **Price 1 piece** | **Weight 1 piece** | **Pack unit** |
|---|---|---|---|---|---|---|
| | **EAN** | **Type code** | **Order code** | | **kg** | **pc.** |
| Plug-in base | 940708 | S2C-EST | 2CSS200999R0001 | | 0.115 | 1 |




S 2C-EST

# Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors




S2C-CM



**Motor operating devices**

| | | | S2C-CM | F2C-CM |
|---|---|---|---|---|
| Supply | | V | 12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15% | |
| Power consumption during the operation | 12 V a.c. | VA | < 15 | |
| | 24 V a.c. | VA | < 22 | |
| | 30 V a.c. | VA | < 25 | |
| | 12 ... 48 Vd.c. | VA | < 20 | |
| Power consumption at rest | | VA | < 1.5 | |
| Make-time at ambient temperature | | sec | < 1 | |
| Opening time at ambient temperature | | sec | < 0.5 | |
| Number of operations | | | < 20.000 | |
| Operating temperature | | °C | - 25 ... + 55 | |
| Cables length of control circuit | | m | < 1500 | |
| Cables cross-section | | $mm^2$ | < 2.5 | |
| Signal contact (terminals 3 – 4 – 5) Current carrying capacity | | | 1NA + 1NC (change-over contact) 5 A (250 V AC) (inductive-ohmic load) | |
| Auxiliary contact (terminals 6 – 7 – 8) Current carrying capacity | | | 1NA + 1NC (change-over contact) 3 A (250 V AC) (inductive-ohmic load) | |
| Remote control* | | | By means of dry contacts | |
| Remote control terminals | | | Terminal 9 = make contact; Terminal 10 = opening contact Terminal 11 = common reference for control contacts, +5V d.c. (supplied by the motor operating device) | |

* Note: In case of the device opening due to a fault, please wait 8 seconds before attempting to reclose the motor operator.

# Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors



| Motor operating devices | | | |
|---|---|---|---|
| | | | **DS2C-CM** |
| Supply | | V | 12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15% |
| Insulation voltage | | V | 2500 for 1 minute |
| Power consumption during the operation | 12 V a.c. | VA | < 15 |
| | 24 V a.c. | VA | < 22 |
| | 30 V a.c. | VA | < 25 |
| | 12 ... 48 V d.c. | VA | < 20 |
| Power consumption at rest | | VA | < 1.5 |
| Remote control * | | | by means of dry contacts |
| Make-time at ambient temperature | | sec | < 1 |
| Opening time at ambient temperature | | sec | < 0.5 |
| Time before attempting to reclose the motor operator | | sec | 8 |
| Number of operations | | | < 20.000 |
| Operating temperature | | °C | - 25 ... + 55 |
| Storage temperature | | °C | - 40 ... + 70 |
| Mounting | | | on DIN rail EN 60715 by means of fast clip device |
| Protection degree (EN 60529) | | | terminals: IP2X |
| | | | enclosure: IP4X |
| Cables length of control circuit | | m | < 1500 |
| Cables cross-section | | $mm^2$ | < 2.5 |
| Signal contact (terminals 3 – 4 – 5) | | | 1NO + 1NC (change-over contact) |
| Current carrying capacity | | | 5 A (250 V AC) (resistive load) |
| Auxiliary contact (terminals 6 – 7 – 8) | | | 1NO + 1NC (change-over contact) |
| Current carrying capacity | | | 3 A (250 V AC) (resistive load) |
| Remote control terminals | | | Terminal 9 = make contact; Terminal 10 = opening contact<br>Terminal 11 = common reference for control contacts, +5 V d.c. (supplied by the motor operating device) |

* Note: In case of the device opening due to a fault, please wait 8 seconds before attempting to reclose the motor operator.

## Motor operating devices

Function: S2C-CM, F2C-CM and DS2C-CM allow the remote control (opening or closing) of the coupled device. Suitable for S200 series MCBs and SD200 switch disconnectors, F 200 RCCBs and RCBOs DS201 and DS202C.

| Description | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Motor operating device for 1P S200 series MCBs and SD200 switch disconnectors | 026259 | S2C-CM1 | 2CSS201997R0013 | | 0.166 | 1 |
| Motor operating device for 2P and 3P S200 series MCBs and SD200 switch disconnectors | 026358 | S2C-CM2/3 | 2CSS203997R0013 | | 0.166 | 1 |
| Motor operating device for 4P S200P MCBs | 026457 | S2C-CM4 | 2CSS204997R0013 | | 0.166 | 1 |
| Motor operating device for 2P and 4P F200 RCCBs | 026556 | F2C-CM | 2CSF200997R0013 | | 0.166 | 1 |
| Motor operating device for 1P+N and 2P DS201, DS202C RCBOs | 135951 | DS2C-CM | 2CSR201997R0013 | | 0.166 | 1 |
| Motor operating device for B type and PV B F200 RCCB up to 63A | 600428 | F2 63A 24V CM4 | 2CSF200997R6314 | | 0,36 | 1 |
| Motor operating device for B type and PV B F200 RCCB up to 63A | 601029 | F2 63A 230V CM4 | 2CSF200997R6305 | | 0,36 | 1 |
| Motor operating device for B type and PV B F200 RCCB up to 63A, autoreclosing | 601128 | F2 63A 24V CM4.1 | 2CSF200996R6314 | | 0,36 | 1 |
| Motor operating device for F200 125A RCCB | 020721 | F2-125A-24V-CM4 | 2CSF200997R1214 | | 0,36 | 1 |
| Motor operating device for F200 125A RCCB | 600626 | F2-125A-230V-CM4 | 2CSF200997R1205 | | 0,36 | 1 |

**Where to find more:**
Wiring Diagrams for Motor Operating and Autoreclosing units p.15/13




F2C-ARI

| Auto-reclosing unit | | | | |
|---|---|---|---|---|
| | | | F2C-ARI | F2C-ARI30 |
| Supply | | V | 12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15% | |
| Number of automatic reset attempts | | | 3 | |
| Time of reset of the auto-reset meter | | sec | 12 | 45 |
| Power consumption during the operation | 12 V a.c. | VA | < 15 | |
| | 24 V a.c. | VA | < 22 | |
| | 30 V a.c. | VA | < 25 | |
| | 12...48 V d.c. | VA | < 20 | |
| Power consumption at rest | | VA | < 1.5 | |
| Waiting time between auto-reset attempts | | sec | 3 | 30 |
| Closing time at ambient temperature | | sec | < 1 | |
| Opening time at ambient temperature | | sec | < 0.5 | |
| Number of operations | | | < 20.000 | |
| Operating temperature | | °C | - 25 ... + 55 | |
| Cables length of control circuit | | m | < 1500 | |
| Cables cross-section | | $mm^2$ | < 2.5 | |
| Signaling contact to signal a locked state following three auto-reset attempts (terminals 3–4–5) | | | 1NA + 1NC (change-over contact) | |
| Current carrying capacity | | | 5 A (250 V AC) (ohmic load) | |
| Auxiliary contact (terminals 6–7–8) | | | 1NA + 1NC (change-over contact) | |
| Current carrying capacity | | | 3 A (250 V AC) (ohmic load) | |
| Remote control | | | By means of dry contacts | |
| Remote control terminals | | | Terminal 9 = closing and remote reset contact for locked state; Terminal 10 = opening contact | |
| | | | Terminal 11 = common reference for control contacts, +5V d.c. (supplied by the motor operating device) | |

## Auto-reclosing units

Function: F2C-ARI and F2C-ARI30 allow the auto-reclosing of the coupled device in case of unwanted tripping. Suitable for F 200 RCCBs up to 100 A.

| Description | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Auto-reclosing unit for 2P and 4P F200 RCCBs | 026655 | F2C-ARI | 2CSF200996R0013 | | 0.166 | 1 |
| Auto-reclosing unit for 2P and 4P F200 RCCBs (30") | 064350 | F2C-ARI30 | 2CSF200995R0013 | | 0.166 | 1 |

**Where to find more:**
Wiring Diagrams for Motor Operating and Autoreclosing units p.15/13

# Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors




F2C-ARH




F2C-ARH-T

| Home automatic resetting unit | | |
|---|---|---|
| | | **F2C-ARH /F2C-ARH-T** |
| Power supply | VAC | 230 |
| Number of automatic reclosing attempts | | 1 |
| Reset time for counter of automatic reclosing attempts | sec | 12 |
| Power absorbed during the operation | VA | (t<0.5s) 20 max |
| Power consumption in stand-by | W | 0.4 max |
| Number of operations | | ≤ 10.000 |
| Operating temperature | °C | -25 ... + 55 |
| Signal contact cable section | $mm^2$ | ≤ 2.5 |
| Signal contact for the locked state (terminals 1-2) | | 1NA (change-over contact) |
| Signal contact rated current | A | 3 (250V AC) |

## Home automatic resetting unit (for domestic and similar applications)

Function: it recloses the associated residual current device, only after having checked that there are no effective faults in the system protected by the RCCB.
Suitable for 2-pole RCCB series with 30 mA or 100 mA sensitivities, max 63 A

| Description | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Home automatic resetting unit (30 mA) | 732433 | F2C-ARH | 2CSF200992R0005 | | 0.200 | 1 |
| Home automatic resetting unit (100 mA) | 658535 | F2C-ARH100 | 2CSF200990R0005 | | 0.200 | 1 |

## Home automatic resetting unit with autotest (for domestic and similar applications)

Function: it recloses the associated residual current device, only after having checked that there are no effective faults in the system protected by RCCB.
Suitable for 2-pole RCCB series with 30 mA or 100 mA sensitivities, max 63 A.
F2C-ARH-T allows the RCCB automatic test every six months.

| Description | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Home automatic resetting unit (30 mA) with RCCB autotest | 733232 | F2C-ARH-T | 2CSF200991R0005 | | 0.200 | 1 |
| Home automatic resetting unit (100 mA) with RCCB autotest | 593836 | F2C-ARH-T100 | 2CSF200989R0005 | | 0.200 | 1 |

**Where to find more:**
Wiring Diagrams for Motor Operating and Autoreclosing units p.15/13

# Busbar systems
## Selection table

### Short description
ABB busbar systems enable the safe and economic cross connection of MCBs, RCCBs and RCBOs.

For a correct busbar selection the following points need to be considered:
- MCB terminal type (Twin terminal or cage terminal)
- Number of poles (1, 2, 3, 4, 1+N or 3+N)
- Device type (MCB, RCCB or RCBO)
- Combinations (e.g. RCCB + MCB or RCCB 3+N + RCCB 1+N)
- Use of side mounted auxiliary elements on MCB *)
- Busbar diameter (for current carrying capacity calculation)
- Number of modules (choice of standard busbar or busbar for cutting)



### Coding of PS busbars

| PS | [ ] | / | [ ][ ] | / | [ ][ ] | | [ ][ ][ ] | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 7 |
| **Phases** | | | | | | | | | |
| 1 phase | 1 | | | | | | | | |
| 2 phases | 2 | | | | | | | | |
| 3 phases | 3 | | | | | | | | |
| 4 phases | 4 | | | | | | | | |
| **Number of pins** | | | | | | | | | |
| **Diameter** | | | | | | | | | |
| 10 mm² | | | | | - | - | | | |
| 6 mm² | | | | | 6 | - | | | |
| 16 mm² | | | | | 1 | 6 | | | |
| 30 mm² | | | | | 3 | 0 | | | |
| **Application** | | | | | | | | | |
| Cross connection of RCCB and MCB (4th pin removed for RCCB 3+N) | | | | | | | F | I | |
| Use of neutral conductor (phase sequence e.g. L1-N-L2-N-L3-N-L1...) | | | | | | N | | | |
| Space for 1 side mounted auxiliary contact | | | | | | H | | | |
| Space for 2 side mounted auxiliary contacts | | | | | | | H | 2 | |
| Pins for breaking off | | | | | | | | | A |
| Cross connection of devices 3P+N + 1P+N (phase sequence L1-L2-L3-N-L1-N-L2-N-L1-N-...) | | | | | | | N | N | |
| Busbars for IT networks | | | | | | | I | T | |
| Busbars acc. to UL 489 (Branch Protection) | | | | | | | B | P | |
| Busbars acc. to UL 1077 (Supplementary Protection) | | | | | | | S | P | |

**Note:** Combinations of above applications are possible

***) only right side mounted auxiliary elements and bottom fixed auxiliary contacts can be considered for busbar connection**

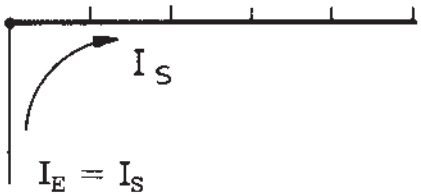
# Busbars and accessories for
# MCBs S 200, RCDs F 200 and DS 200 series



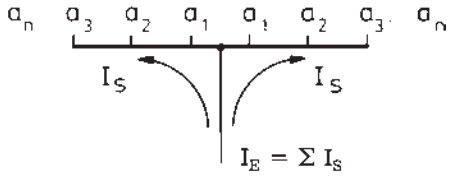
| | | | Busbars PS | | | | Busbars PS…SP | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Suitable for | | | MCB: S200, S200M, S200P<br>RCD: F200, DDA-blocks | | | | MCB: S200, S200P | | | |
| Electrical Data | Standards | | for IEC applications<br>DIN EN 60947-1 VDE 0660 Part 100 = IEC 60947-1:2004 | | | | UL1077<br>DIN EN 60947-1 VDE 0660 Part 100 = IEC 60947-1:2004 | | | |
| | Approvals | | — | | | | UL 1077 | | | |
| | Rated voltage Ue | | 1P, 2P, 3P, 4P: 690 V AC, 690 V DC | | | | 1P, 2P, 3P, 4P: 480 V AC | | | |
| | Rated frequency | Hz | 50 / 60 Hz, DC | | | | 50 / 60 Hz | | | |
| | Current carrying capacity / Phase (35°C ambient temperature) | A | | 10 mm² | 16 mm² | 30 mm² | | 10 mm² | 16 mm² | |
| | | | End feeding ① | 63 A | 80 A | 120 A | End feeding ① | 63 A | 80 A | |
| | | | Non-end feeding ① | 100 A | 130 A | 160 A | Non-end feeding ① | 100 A | 130 A | |
| | Short-circuit withstand capacity | kA | 25 kA in series with fuse NH3 355 A gG 500 V | | | | 10 kA in series with fuse NH3 355 A gG 500 V | | | |
| Mechanical Data | Housing | | light grey, RAL 7035 | | | | | | | |
| | Enviromental conditions acc. to | | DIN EN 60068 | | | | | | | |
| | Overvoltage category | | III | | | | | | | |
| | Pollution degree | | 2 | | | | | | | |
| Installation | Cross-Section Busbar | | 10 mm², 16 mm², 30 mm² | | | | 10 mm², 16 mm² | | | |
| | Mounting position | | optional | | | | | | | |
| | Supply | | Feed on terminal of the device (supply side optional) or use of feeder terminal range AST; SZ-ESK | | | | Feed on terminal of the device (supply side optional) or use of feeder terminals AST 35/15 SP; SZ-ESK SP | | | |
| Accessories | Shock-protection caps | | BSK, SZ-BSK | | | | BSK SP | | | |
| | Feeder terminals | | range AST, SZ-ESK | | | | AST 35/15 SP<br>SZ-ESK SP | | | |
| | End caps | | range END, PS-END, PSB-END | | | | PS-END SP; PS-END1 SP | | | |
| | | | **Feeder Terminals AST , SZ-ESK** | | | | **Feeder Terminals AST 35/15 SP and SZ-ESK SP** | | | |
| Electrical Data | Max. operating voltage | V | 690 V AC, 690 V DC | | | | 480 V AC | | | |
| | Current carrying capacity / phase | A | see below ① | | | | 115 A ① | | | |
| | Cross-Section | mm² | SZ-ESK | 6 - 35 mm² | 100 A | | SZ-ESK SP | 35 mm² / 2AWG flexible with ferrules | | |
| | | | | 6 - 50 mm² | 125 A | | | 50 mm² / 1AWG solid / stranded | | |
| | | mm² | AST | 6 - 25 mm² | 80 A | | AST 35/15 SP | 25 mm² / 3AWG flexible with ferrules | | |
| | | | | 6 - 50 mm² | 125 A | | | 35 mm² / 2AWG solid / stranded | | |
| Instruction of installation | | | When cutting the busbar, ensure that the insulation profile exceeds the copper bar by approx. 10 mm on each side. Shock proteciton only with mounted end caps ensured.<br>For DC applications the required increased clearence and creepage distances needs to be ensured. | | | | When cutting the busbar, ensure that the installation profile exceeds the copper bar by approx. 10 mm on each side.<br>Shock protection only with mounted end caps ensured. | | | |

① In case of feed in from the middle of the busbar it needs to be ensured, that the sum of junction currents per side must not exceed the max busbar current $I_s$/phase. Irrespective of the current carrying capacity ($I_s$) of the busbar, the max. rated current of the devices terminal may not be exceeded.

| | Busbars PS…BP | Busbars PS…BP-C | |
|---|---|---|---|
| | MCB: S200U, S200UP | SU200M, S200 UDC, S200U and S200 UP | |
| | UL489<br>DIN EN 60947-1 VDE 0660 Part 100 = IEC 60947-1:2004 | UL508<br>EN 60947-1 / IEC 60947-1:2004 | |
| | UL 489 | | |
| | 1P, 2P, 3P: 480 V AC | 600 V AC/DC | |
| | 50 / 60 Hz | 50 Hz (IEC) / 60 Hz (UL) | |
| | 16 mm² | | |
| | 80 A (115A for cubicle size ≥ 30''x30''x10'') | End feeding | 100 A |
| | | Non-end feeding | 200 A |
| | 10 kA in series with fuse NH3 355 A gG 500 V | 10 kA 3 cycles @ 600 V / 140 kA Fuse Class J 200 A | |
| | | | |
| | | | |
| | | | |
| | | | |
| | 16 mm² | 25 mm² | |
| | | | |
| | Feed on terminal of the device (supply side optional) or use of feeder terminals AST 35/15 BP; SZ-ESK BP | Feedin via cable or feeder terminal | |
| | BSK BP | BSK BP-C | |
| | AST 35/15 BP<br>SZ-ESK BP | AST 35/58 BP-C | |
| | - | PS-END 3 BP-C | |
| | **Feeder Terminals AST 35/15 BP and SZ-ESK BP** | | |
| | 480 V AC | 1000 V | |
| | 115 A ① | 115 A | |
| | SZ-ESK BP 35 mm² / 2AWG flexible with ferrules | AST 35/58 BP-C | 28mm² / 2AWG |
| | 50 mm² / 1AWG solid / stranded | | |
| | AST 35/15 BP 25 mm² / 3AWG flexible with ferrules | | |
| | 35 mm² / 2AWG solid / stranded | | |
| | Cutting of busbar is not permitted. | The feeder terminals are single pole devices. When combined in a multi-pole application the rules of insulation coordination (e.g. clearance and creepage distances) needs to be considered. | |




Feed in from the end of the busbar




Feed in from the middle of the busbar

# Busbars and accessories for
# MCBs S 200, RCDs F 200 and DS 200 series




PS 1/2 - PS 1/12




PS 3/6 - PS 3/12

## Pre-assembled busbars (not to be cut)

**1-phase busbars, pin distance 17.6 mm, end caps PS-END 0**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 2 | 1 | 10 | 0.01 | 463003 | PS1/2 | 2CDL 210 001 R1002 | | 0.01 | 180 |
| 3 | 1 | 10 | 0.03 | 514651 | PS1/3 | 2CDL 210 001 R1003 | | 0.03 | 120 |
| 4 | 1 | 10 | 0.03 | 648233 | PS1/4 | 2CDL 210 001 R1004 | | 0.03 | 100 |
| 6 | 1 | 10 | 0.03 | 463102 | PS1/6 | 2CDL 210 001 R1006 | | 0.03 | 60 |
| 9 | 1 | 10 | 0.04 | 463201 | PS1/9 | 2CDL 210 001 R1009 | | 0.04 | 30 |
| 12 | 1 | 10 | 0.05 | 463300 | PS1/12 | 2CDL 210 001 R1012 | | 0.05 | 30 |
| 12 | 1 | 10a | 0.05 | 682985 | PS1/12A ② | 2CDL 210 010 R1012 | | 0.05 | 30 |

**3-phase busbars, pin distance 17.6 mm**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 6 | 3 | 10 | 0.04 | 463409 | PS3/6 | 2CDL 231 001 R1006 | | 0.04 | 60 |
| 9 | 3 | 10 | 0.07 | 463508 | PS3/9 | 2CDL 231 001 R1009 | | 0.07 | 30 |
| 12 | 3 | 10 | 0.10 | 463607 | PS3/12 | 2CDL 231 001 R1012 | | 0.10 | 30 |
| 12 | 3 | 10 | 0.10 | 463706 | PS3/12FI * | 2CDL 231 002 R1012 | | 0.09 | 50 |

* phase sequence: L1, L2, L3, free, L2, L3, L1, ...

## Busbars suitable for cutting

**1-phase busbars, pin distance 17.6 mm, end caps PS-END 0**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 60 | 1 | 10 | 0.26 | 514668 | PS1/60 | 2CDL 210 001 R1060 | | 0.26 | 20 |
| 60 | 1 | 10 | 0.26 | 682992 | PS1/60A ② | 2CDL 210 010 R1060 | | 0.28 | 50 |
| 60 | 1 | 16 | 0.41 | 516655 | PS1/60/16 | 2CDL 210 001 R1660 | | 0.41 | 20 |
| 60 | 1 | 16 | 0.41 | 683005 | PS1/60/16A ② | 2CDL 210 010 R1660 | | 0.39 | 50 |
| 5 | 1 | 30 | 0.04 | 653244 | PS1/5/30 ① | 2CDL 210 001 R3005 | | 0.04 | 100 |
| 10 | 1 | 30 | 0.09 | 653268 | PS1/10/30 ① | 2CDL 210 001 R3010 | | 0.09 | 100 |
| 11 | 1 | 30 | 0.09 | 653275 | PS1/11/30 ① | 2CDL 210 001 R3011 | | 0.10 | 100 |
| 14 | 1 | 30 | 0.120 | 653282 | PS1/14/30 ① | 2CDL 210 001 R3014 | | 0.120 | 50 |
| 15 | 1 | 30 | 0.130 | 653299 | PS1/15/30 ① | 2CDL 210 001 R3015 | | 0.130 | 50 |
| 18 | 1 | 30 | 0.150 | 653305 | PS1/18/30 ① | 2CDL 210 001 R3018 | | 0.150 | 50 |
| 19 | 1 | 30 | 0.160 | 653312 | PS1/19/30 ① | 2CDL 210 001 R3019 | | 0.160 | 50 |
| 60 | 1 | 30 | 0.520 | 653596 | PS1/60/30 | 2CDL 210 001 R3060 | | 0.520 | 20 |

**1-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 0**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 38 | 1 | 10 | 0.27 | 586139 | PS1/38H | 2CDL 210 001 R1038 | | 0.27 | 30 |
| 38 | 1 | 16 | 0.45 | 586146 | PS1/38/16H | 2CDL 210 001 R1638 | | 0.45 | 30 |

**1-phase busbars, connection of neutral (blue insulation), end caps END 1.1**

① inclusive of end caps
② pre-cutted pins

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 28 | 1 | 10 | 0.24 | 629546 | PS1/28N | 2CDL 210 001 R1028 | | 0.14 | 50 |
| 28 | 1 | 16 | 0.32 | 629560 | PS1/28/16N | 2CDL 210 001 R1628 | | 0.20 | 50 |
| 57 | 1 | 10 | 0.24 | 579728 | PS1/57NA ② | 2CDL 210 011 R1057 | | 0.14 | 50 |
| 57 | 1 | 10 | 0.24 | 629539 | PS1/57N | 2CDL 210 001 R1057 | | 0.14 | 50 |
| 57 | 1 | 16 | 0.32 | 579735 | PS1/57/16NA ② | 2CDL 210 011 R1657 | | 0.20 | 50 |
| 57 | 1 | 16 | 0.32 | 629553 | PS1/57/16N | 2CDL 210 001 R1657 | | 0.20 | 50 |

**1-phase busbars, connection of auxiliaries, end caps END 1.1 except PS 1/57/6**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 23 | 1 | 6 | 0.16 | 584739 | PS1/23/6 | 2CDL 210 005 R0623 | | 0.09 | 50 |
| 29 | 1 | 6 | 0.14 | 580823 | PS1/29/6 | 2CDL 210 005 R0629 | | 0.10 | 50 |
| 38 | 1 | 6 | 0.14 | 580816 | PS1/38/6 | 2CDL 210 005 R0638 | | 0.09 | 50 |
| 57 | 1 | 6 | 0.11 | 585309 | PS1/57/6 | 2CDL 210 005 R0657 | | 0.08 | 50 |

**1-phase busbars, connection of hand operated neutral S2C-Nt (blue insulation),end caps END 1.1**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 38 | 1 | 10 | 0.410 | 655361 | PS1/38 NT | 2CDL 210 002 R1038 | | | 10 |

**2-phase busbars, pin distance 17.6 mm, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 12 | 2 | 10 | 0.07 | 556521 | PS2/12 ① | 2CDL 220 001 R1012 | | 0.08 | 50 |
| 12 | 2 | 10 | 0.07 | 584616 | PS2/12A ①② | 2CDL 220 010 R1012 | | 0.08 | 50 |
| 12 | 2 | 16 | 0.11 | 646918 | PS2/12/16 | 2CDL 220 001 R1612 | | 0.09 | 50 |
| 58 | 2 | 10 | 0.32 | 556552 | PS2/58 | 2CDL 220 001 R1058 | | 0.36 | 10 |
| 58 | 2 | 16 | 0.55 | 556569 | PS2/58/16 | 2CDL 220 001 R1658 | | 0.49 | 10 |
| 58 | 2 | 16 | 0.55 | 584746 | PS2/58/16A ② | 2CDL 220 010 R1658 | | 0.49 | 10 |
| 58 | 2 | 30 | 1.81 | 654272 | PS2/58/30 ③④ | 2CDL 220 001 R3058 | | 1.81 | 10 |

Note: PS...A is a busbar with removable pin

**2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 2 | 10 | 0.47 | 556538 | PS2/48H | 2CDL 220 001 R1048 | | 0.35 | 10 |
| 48 | 2 | 16 | 0.68 | 556545 | PS2/48/16H | 2CDL 220 001 R1648 | | 0.48 | 10 |
| 48 | 2 | 16 | 0.68 | 584630 | PS2/48/16HA ② | 2CDL 220 012 R1648 | | 0.48 | 10 |

**3-phase busbars, pin distance 17.6 mm, end caps PS-END**

① inclusive of end caps
② pre-cutted pins
③ use end cap PS-END 3
④ removal of installed MCB not possible

# Busbars and accessories for
# MCBs S 200, RCDs F 200 and DS 200 series



| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 11 | 3 | 10 | 0.10 | 649926 | PS3/11 ① | 2CDL 230 001 R1011 | | 0.08 | 50 |
| 12 | 3 | 10 | 0.09 | 576116 | PS3/12 ① | 2CDL 230 001 R1012 | | 0.09 | 50 |
| 12 | 3 | 10 | 0.09 | 584647 | PS3/12A ①② | 2CDL 230 010 R1012 | | 0.09 | 50 |
| 12 | 3 | 16 | 0.16 | 562805 | PS3/12/16 ① | 2CDL 230 001 R1612 | | 0.12 | 50 |
| 60 | 3 | 10 | 0.51 | 514699 | PS3/60 | 2CDL 230 001 R1060 | | 0.47 | 10 |
| 60 | 3 | 10 | 0.51 | 563758 | PS3/60A ② | 2CDL 230 010 R1060 | | 0.47 | 10 |
| 60 | 3 | 16 | 0.76 | 514705 | PS3/60/16 | 2CDL 230 001 R1660 | | 0.65 | 10 |
| 60 | 3 | 16 | 0.76 | 563765 | PS3/60/16A ② | 2CDL 230 010 R1660 | | 0.65 | 10 |
| 60 | 3 | 30 | 2.65 | 654289 | PS3/60/30 ③⑤ | 2CDL 230 001 R3060 | | 2.65 | 10 |

**3-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 39 | 3 | 10 | 0.51 | 556590 | PS3/39H | 2CDL 230 001 R1039 | | 0.43 | 10 |
| 39 | 3 | 16 | 0.76 | 556606 | PS3/39/16H | 2CDL 230 001 R1639 | | 0.60 | 10 |

**3-phase busbars, connection of 2-pole devices (Phase+N) with auxiliary, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 24 | 3 | 10 | 0.80 | 556576 | PS3/24H | 2CDL 230 001 R1024 | | 0.41 | 10 |

**3-phase busbars, connection of 2-pole devices (Phase+Phase) with auxiliary, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 46 | 3 | 16 | 0.98 | 662109 | PS3/46/16H-IT | 2CDL 230 006 R1648 | | 0.98 | 10 |

**3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 3 | 10 | 0.51 | 556613 | PS3/48H | 2CDL 230 001 R1048 | | 0.43 | 10 |
| 48 | 3 | 16 | 0.76 | 556644 | PS3/48/16H | 2CDL 230 001 R1648 | | 0.60 | 10 |
| 48 | 3 | 16 | 0.76 | 584654 | PS3/48/16HA ② | 2CDL 230 012 R1648 | | 0.60 | 10 |

**3-phase busbars, connection of 1+N or RCBOs, end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 3 | 10 | 0.50 | 556583 | PS3/30 | 2CDL 230 001 R1030 | | 0.42 | 10 |

**3-phase busbars, N of the RCD omitted, end caps PS-END**

① inclusive of end caps
② pre-cutted pins
③ use end cap PS-END 3
④ use end cap PS-END 3.1
⑤ removal of installed MCB not possible

| No. of pins | Phases | mm² | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 9 | 3 | 10 | 0.10 | 517515 | PS3/9FI ① | 2CDL 230 002 R1009 | | 0.06 | 50 |
| 10 | 3 | 10 | 0.10 | 517522 | PS3/10FI ① | 2CDL 230 002 R1010 | | 0.07 | 50 |
| 12 | 3 | 10 | 0.11 | 571074 | PS3/12FI ① | 2CDL 230 002 R1012 | | 0.09 | 50 |
| 57 | 3 | 10 | 0.55 | 556651 | PS3/57FI | 2CDL 230 002 R1057 | | 0.46 | 10 |

**3-phase busbars, N of the RCD omitted, with auxilary at RCD end caps PS-END**

| No. of pins | Phases | mm² | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 3 | 10 | 0.11 | 571081 | PS3/12FIH ① | 2CDL 230 003 R1012 | | 0.09 | 50 |

**4-phase busbars, pin distance 17.6 mm, end caps PS-END 1**

| No. of pins | Phases | mm² | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 4 | 10 | 0.12 | 656054 | PS4/12 ① | 2CDL 240 101 R1012 | | 0.11 | 30 |
| 12 | 4 | 10 | 0.12 | 656061 | PS4/12A ①② | 2CDL 240 110 R1012 | | 0.11 | 30 |
| 12 | 4 | 16 | 0.24 | 656078 | PS4/12/16 ① | 2CDL 240 101 R1612 | | 0.16 | 30 |
| 60 | 4 | 10 | 0.80 | 656085 | PS4/60 | 2CDL 240 101 R1060 | | 0.64 | 10 |
| 60 | 4 | 16 | 1.21 | 656092 | PS4/60/16 | 2CDL 240 101 R1660 | | 0.89 | 10 |
| 60 | 4 | 16 | 1.21 | 656108 | PS4/60/16A ② | 2CDL 240 110 R1660 | | 0.89 | 10 |
| 60 | 4 | 30 | 3.37 | 654296 | PS4/60/30 ④⑤ | 2CDL 240 001 R3060 | | 3.37 | 10 |

Note: PS...A is a busbar with removable pin

**4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1**

| No. of pins | Phases | mm² | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 52 | 4 | 16 | 1.30 | 656115 | PS4/52/16H | 2CDL 240 101 R1652 | | 0.78 | 10 |
| 52 | 4 | 16 | 1.30 | 656122 | PS4/52/16HA ② | 2CDL 240 212 R1652 | | 0.78 | 10 |

**4-phase busbars, connection of 1+N or RCBOs, end caps PS-END 1**

| No. of pins | Phases | mm² | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 4 | 10 | 0.14 | 656139 | PS4/12NA ①② | 2CDL 240 213 R1012 | | 0.10 | 30 |
| 58 | 4 | 10 | 0.80 | 656146 | PS4/58N | 2CDL 240 101 R1058 | | 0.59 | 10 |
| 58 | 4 | 16 | 1.21 | 656153 | PS4/58/16N | 2CDL 240 101 R1658 | | 0.77 | 10 |
| 58 | 4 | 16 | 1.21 | 656221 | PS4/58/16NA ② | 2CDL 240 213 R1658 | | 0.77 | 10 |

**4-phase busbars, connection of 1+N or RCBOs with auxiliary, end caps PS-END 1**

① inclusive of end caps
② pre-cutted pins
③ use end cap PS-END 3
④ use end cap PS-END 3.1
⑤ removal of installed MCB not possible

# Busbars and accessories for
# MCBs S 200, RCDs F 200 and DS 200 series

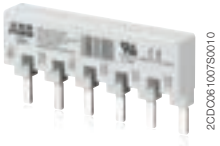
| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 4 | 16 | 1.48 | 656160 | PS4/48/16NHA ② | 2CDL 240 114 R1648 | | 0.76 | 10 |

**4-phase busbars, connection of 4-pole RCD with 1+N , end caps PS-END 1**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 58 | 4 | 10 | 0.80 | 656177 | PS4/58NNA ② | 2CDL 240 110 R1058 | | 0.58 | 10 |
| 58 | 4 | 16 | 1.21 | 656184 | PS4/58/16NNA ② | 2CDL 240 110 R1658 | | 0.80 | 10 |



① inclusive of end caps
② pre-cutted pins
③ use end cap PS-END 3
④ use end cap PS-END 3.1
⑤ removal of installed MCB not possible




PS2/6/16 BP




BSK BP




AST35/15BP




SZ-ESK BP

## Pre-assembled busbars (not to be cut) UL 489 only suitable for S200U and S200UP

### 1-phase busbars, pin distance 17.6 mm, UL 489

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 6 | 1 | 16 | 0.04 | 644969 | PS 1/6/16 BP | 2CDL 210 489 R1606 | | 0.05 | 1 |
| 12 | 1 | 16 | 0.07 | 644976 | PS 1/12/16 BP | 2CDL 210 489 R1612 | | 0.11 | 1 |
| 18 | 1 | 16 | 0.11 | 644983 | PS 1/18/16 BP | 2CDL 210 489 R1618 | | 0.16 | 1 |

### 2-phase busbars, pin distance 17.6 mm, UL489

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 6 | 2 | 16 | 0.07 | 644990 | PS 2/6/16 BP | 2CDL 220 489 R1606 | | 0.06 | 1 |
| 12 | 2 | 16 | 0.14 | 645003 | PS 2/12/16 BP | 2CDL 220 489 R1612 | | 0.13 | 1 |
| 18 | 2 | 16 | 0.21 | 645010 | PS 2/18/16 BP | 2CDL 220 489 R1618 | | 0.20 | 1 |

### 3-phase busbars. pin distance 17.6 mm. UL 489

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 6 | 3 | 16 | 0.11 | 645027 | PS 3/6/16 BP | 2CDL 230 489 R1606 | | 0.07 | 1 |
| 12 | 3 | 16 | 0.22 | 645034 | PS 3/12/16 BP | 2CDL 230 489 R1612 | | 0.15 | 1 |
| 18 | 3 | 16 | 0.33 | 645041 | PS 3/18/16 BP | 2CDL 230 489 R1618 | | 0.24 | 1 |

## Shock-protection caps for PS...BP (UL 489)

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 3 parts | | | 656368 | BSK BP | 2CDL 200 489 R0001 | | 0.001 | 10 |

## Feeder Terminals for PS...BP (UL 489)

### Technical features

| | | |
|---|---|---|
| | Feeder terminals SZ-ESK BP, AST 35/15 BP | |
| Max. operating voltage | 480 V AC | |
| Max. current | 80 A (115 A for cubicle size ≥ 30" x 30" x 10") ① | |
| Protection degree | IP 20 | |
| Wire range | SZ-ESK PB: | 35 mm² / 2AWG flexible with ferrule |
| | | 50 mm² / 1AWG solid/stranded |
| | AST 35/15 BP: | 25 mm² / 3AWG flexible with ferrule |
| | | 35 mm² / 2AWG solid/stranded |

① regardless of the rated current of the feeder terminal the maximum current rating of the device terminal may not be exceeded

### Insulated with pin contact

| Conn. capacity | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | kg | EAN | Type code | Order code | | kg | pc. |
| 35 | 0.035 | 710350 | AST 35/15 BP | 2CDL 201 489 R3515 | | 0.035 | 25 |
| **Single-pole terminal, can be mounted side by side, feed on the pin of the busba** | | | | | | | |
| 50 | | 710367 | SZ-ESK BP | 2CDL 201 489 R5001 | | 0.038 | 50 |

① inclusive of end caps
② pre-cutted pins
③ use end cap PS-END 3
④ use end cap PS-END 3.1
⑤ removal of installed MCB not possible

# Busbars and accessories for MCBs SU200 M, S200 UDC, S200 U and S200 UP



## Busbars PS....BP-C suitable for MCBs acc. to UL489: SU200M, S200 UDC, S200U and S200UP

**1-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 57 | 1 | 25 | 0,47 | 949910 | PS1/57/25BP-C | 2CDL210489R5725 | | 0,775 | 10 |

**1-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 37 | 1 | 25 | 0,5 | 949934 | PS1/37/25HBP-C | 2CDL210489R3725 | | 0,661 | 10 |

**2-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 56 | 2 | 25 | 0,888 | 949941 | PS2/56/25BP-C | 2CDL220489R5625 | | 0,969 | 10 |

**2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 46 | 2 | 25 | 0,87 | 949958 | PS2/46/25HBP-C | 2CDL220489R4625 | | 0,943 | 10 |

**3-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 57 | 3 | 25 | 1,31 | 949965 | PS3/57/25BP-C | 2CDL230489R5725 | | 1,198 | 10 |

**3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END 3 BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 3 | 25 | 1,28 | 949972 | PS3/48/25HBP-C | 2CDL230489R4825 | | 1,129 | 10 |
| 39 | 3 | 25 | 1,305 | 949989 | PS3/39/25HBP-C | 2CDL230489R3925 | | 1,115 | 10 |

**Shock-protection caps for PS....BP-C**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 3 parts | | | 950077 | BS BP-C | 2CDL200489R0002 | | 0.005 | 10 |

## Busbars PS....BP-C suitable for MCBs acc. to UL489: SU200M, S200 UDC, S200U and

**Terminal insulated with pin contact**

| Conn.capacity mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | kg | EAN | Type code | Order code | | kg | pc. |
| 25 | 0,038 | 950060 | AST 35/58 BP-C | 2CDL201489R3558 | | 0.045 | 10 |

# Busbars and accessories for MCBs S 200, SN 201, RCDs F 200 and DS 200 series



## Busbars (suitable for cutting) UL 1077 suitable for MCBs S200 and S200P

### 1-phase busbars, pin distance 17.6 mm, end caps PS-END 0

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 60 | 1 | 10 | 0.26 | 830409 | PS 1/60 SP | 2CDL 210 111 R1060 | | 0.26 | 20 |
| 60 | 1 | 16 | 0.41 | 830423 | PS 1/60/16 SP | 2CDL 210 111 R1660 | | 0.41 | 20 |

### 1-phase busbars, connection of 1-pole devices with auxiliary, PS-END 0

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 38 | 1 | 10 | 0.27 | 830430 | PS 1/38H SP | 2CDL 210 111 R1038 | | 0.27 | 30 |
| 38 | 1 | 16 | 0.45 | 830447 | PS 1/38/16H SP | 2CDL 210 111 R1638 | | 0.45 | 30 |

### 2-phase busbars, pin distance 17.6 mm, end caps PS-END SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 58 | 2 | 10 | 0.42 | 646413 | PS 2/58 SP | 2CDL 220 111 R1058 | | | 10 |
| 58 | 2 | 16 | 0.69 | 646420 | PS 2/58/16 SP | 2CDL 220 111 R1658 | | | 10 |

### 2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 2 | 16 | 0.68 | 646437 | PS 2/48/16 HSP | 2CDL 220 112 R1648 | | | 10 |

### 3-phase busbars, pin distance 17.6 mm, end caps PS-END SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 60 | 3 | 10 | 0.68 | 646444 | PS 3/60 SP | 2CDL 230 111 R1060 | | | 10 |
| 60 | 3 | 16 | 1.02 | 646451 | PS 3/60/16 SP | 2CDL 230 111 R1660 | | | 10 |

### 3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 48 | 3 | 16 | 1.16 | 646468 | PS 3/48/16 HSP | 2CDL 230 112 R1648 | | | 10 |

### 4-phase busbars, pin distance 17.6 mm, PS-END 1 SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 60 | 4 | 16 | 1.97 | 656191 | PS 4/60/16 SP | 2CDL 240 311 R1660 | | | 10 |

### 4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1 SP

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 52 | 4 | 16 | 1.90 | 656207 | PS 4/52/16H SP | 2CDL 240 312 R1652 | | | 10 |

# Busbars and accessories for
# MCBs S 200, SN 201, RCDs F 200 and DS 200 series




BSK SP




AST 35/15 SP




SZ-ESK SP

**4-phase busbars, connection of 1+N and RCBO, end caps PS-END 1 SP**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 58 | 4 | 16 | 1.86 | 656214 | PS4/58/16N SP | 2CDL 240 313 R1658 | | | 10 |

## Shock-protection caps for PS...SP (UL 1077)

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 5 parts | | 0.001 | 710398 | BSK SP | 2CDL 200 111 R0001 | | | 100 |

## Feeder Terminals for PS...SP (UL 1077)

**Terminal, insulated with pin contact**

| Conn. capacity | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | kg | EAN | Type code | Order code | | kg | pc. |
| 35 | 0.038 | 710374 | AST 35/15 SP | 2CDL 200 111 R3515 | | 0.025 | 25 |

**Feeder Terminal single-pole terminal, can be mounted side by side, feed on the pin of the busbar**

| Conn. capacity | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | kg | EAN | Type code | Order code | | kg | pc. |
| 50 | 0.038 | 710381 | SZ-ESK SP | 2CDL 200 111 R5001 | | 0.032 | 50 |

## Suitable for MCBs S 200 and S200 P – UL 1077 (Supplementary Protection)

**Technical features**

| | | |
|---|---|---|
| | Feeder terminals SZ-ESK SP, AST 35/15 SP | |
| Max. operating voltage | 480 VAC | |
| Max. current | 115 A ① | |
| Protection degree | IP 20 | |
| Wire range | SZ-ESK SP: | 35 mm² / 2AWG flexible with ferrule |
| | | 50 mm² / 1AWG solid/stranded |
| | AST 35/15 SP: | 25 mm² / 3AWG flexible with ferrule |
| | | 35 mm² / 2AWG solid/stranded |

① regardless of the rated current of the feeder terminal the maximum current rating of the device terminal

**4-phase busbars, pin distance 17.6 mm, PS-END 1 SP**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 60 | 4 | 16 | 1.97 | 656191 | PS 4/60/16 SP | 2CDL 240 311 R1660 | | | 10 |

**4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1 SP**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 52 | 4 | 16 | 1.90 | 656207 | PS 4/52/16H SP | 2CDL 240 312 R1652 | | | 10 |

**4-phase busbars, connection of 1+N and RCBO, end caps PS-END 1 SP**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 58 | 4 | 16 | 1.86 | 656214 | PS4/58/16N SP | 2CDL 240 313 R1658 | | | 10 |

## Shock-protection caps for PS...SP (UL 1077)

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 5 parts | | 0.001 | 710398 | BSK SP | 2CDL 200 111 R0001 | | | 100 |

## Feeder Terminals for PS...SP (UL 1077)

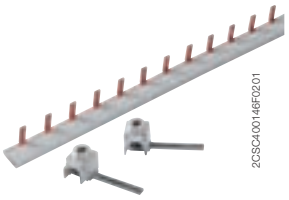
**Terminal, insulated with pin contact**

| Conn. capacity | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | kg | EAN | Type code | Order code | | kg | pc. |
| 35 | 0.038 | 710374 | AST 35/15 SP | 2CDL 200 111 R3515 | | 0.025 | 25 |

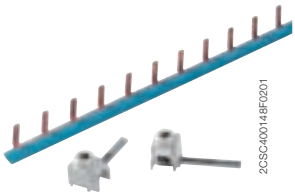
**Feeder Terminal single-pole terminal, can be mounted side by side, feed on the pin of the busbar**

| Conn. capacity | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | kg | EAN | Type code | Order code | | kg | pc. |
| 50 | 0.038 | 710381 | SZ-ESK SP | 2CDL 200 111 R5001 | | 0.032 | 50 |

# Busbars and accessories for
# MCBs S 200, SN 201, RCDs F 200 and DS 200 series




BS9+FEED-IN




BS9 NA+FEED-IN



## Busbars for SN 201 range (Maximum rated current 63 A)

| No. pins | Phases | Cross section | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | | mm² | EAN | Type code | Order code | | kg | pc. |
| 12 | 1 | 10 | 047650 | BS9 1/12 | 2CSL910001R1012 | | 0.050 | 10 |
| 12 | 1 | 10 | 047759 | BS9 1/12 NA | 2CSL910011R1012 | | 0.050 | 10 |
| 56 | 1 | 10 | 047353 | BS9 1/56 | 2CSL910001R1056 | | 0.140 | 10 |
| 56 | 1 | 10 | 047452 | BS9 1/56 NA | 2CSL910011R1056 | | 0.140 | 10 |
| 12 | 3 | 10 | 047551 | BS9 3/12 | 2CSL930001R1012 | | 0.090 | 5 |
| 57 | 3 | 10 | 047858 | BS9 3/57 | 2CSL930001R1057 | | 0.470 | 5 |

## Busbars for F200/S200 and SN 201 range (Maximum rated current 63 A)

| No. pins | Phases | Cross section | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | | mm² | EAN | Type code | Order code | | kg | pc. |
| 2 + 10 x 1+N | 2 | 10 | 046950 | BF2-S9 UP 1N/12 | 2CSL920009R1012 | | 0,110 | 5 |
| 4 + 8 x 1+N | 4 | 10 | 047056 | BF2-S9 UP 3N/12 | 2CSL940009R1012 | | 0,110 | 5 |
| 2 + 10 x 1+N | 2 | 10 | 047155 | BF2-S9 DOWN 1N/12 | 2CSL920002R1012 | | 0,110 | 5 |
| 4 + 8 x 1+N | 4 | 10 | 047254 | BF2-S9 DOWN 3N/12 | 2CSL940002R1012 | | 0,110 | 5 |

## Terminals, insulated

| Conn. capacity | Type of connection | Terminal lug L | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm² | | mm | EAN | Type code | Order code | | kg | pc. |
| 25 | pin | 15 | 047957 | FEED-IN 25/15 1P | 2CSL980001R2515 | | 0.010 | 5 |
| 25 | pin | 30 | 048053 | FEED-IN 25/30 3P | 2CSL980001R2530 | | 0.010 | 5 |

## End caps

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 064251 | BS9-END 3P ① | 2CSL980001R0001 | | 0.001 | 20 |

① In combination with BS9 3/57

## Busbars (suitable for cutting) for DDA 200 and DS 200 – bottom mounting (RCD)

**3-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3**
**(phase sequence L1-L2-free-free-L3-L1.....without N)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 3 | 10 | 0.97 | 647472 | PS 3/30-DDA 202 | 2CDL 230 202 R1030 | | 0.41 | 10 |
| 30 | 3 | 16 | 1.46 | 647502 | PS 3/30/16-DDA 202 | 2CDL 230 202 R1630 | | 0.55 | 10 |

**3-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 3**
**(phase sequence L1-L2-aux.(free)-free-free-L3-L1-aux.(free).....without N)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 26 | 3 | 16 | | 648912 | PS 3/26/16H-DDA 202 | 2CDL 230 202 R1626 | | | |

**4-phase busbars, connection of DDA 204 63 A and DS 204 50 A and 63 A, end caps PSB-END 4**
**(phase sequence L1-L2-L3-N-free-free-free-free-L1.....)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 32 | 4 | 10 | 1.41 | 647458 | PS 4/32-DDA 204 | 2CDL 240 204 R1032 | | 0.56 | 10 |
| 32 | 4 | 16 | 2.12 | 647465 | PS 4/32/16-DDA 204 | 2CDL 240 204 R1632 | | 0.77 | 10 |

## Busbars (suitable for cutting) for DDA 200 and DS 200 – top side mounting (MCB)

**2-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3**
**(phase sequence L1-L2/N-free-free-.....)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 2 | 16 | 0.512 | 697675 | PS 2/30/16N-DDA 202T | 2CDL 020 202 R1630 | | | 10 |

**3-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3**
**(phase sequence L1-L2-free-free-L3-L1.....without N)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 3 | 16 | 1.25 | 652629 | PS 3/30/16-DDA 202T | 2CDL 033 202 R1630 | | | 10 |

**3-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 3**
**(phase sequence L1-L2-aux.(free)-free-free-L3-L1-aux.(free).....without N)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 28 | 3 | 16 | 1.31 | 652636 | PS 3/28/16H-DDA 202T | 2CDL 034 202 R1628 | | | 10 |

**4-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 4**
**(phase sequence L1-N-free-free-L2-N...)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 4 | 16 | 1.67 | 652852 | PS 4/30/16N-DDA 202T | 2CDL 040 202 R1630 | | | 10 |

# Busbars and accessories for
# MCBs S 200, SN 201, RCDs F 200 and DS 200 series



**4-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 4 (phase sequence L1-N-aux.(free)-free-free-L2-N-aux.(free)...)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 30 | 4 | 16 | 1.72 | 652599 | PS 4/30/16NH-DDA 202T | 2CDL 041 202 R1630 | | | 10 |

**4-phase busbars, connection of DDA 204 25 A and 40 A and DS 204 up to 40 A, end caps PSB-END 4 (phase sequence L1-L2-L3-N-free-free-L1.....)**

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 40 | 4 | 16 | 1.79 | 652605 | PS 4/40/16-DDA 204T | 2CDL 040 204 R1640 | | | 10 |

**4-phase busbars, connection of DDA 204 25 A and 40 A and DS 204 up to 40 A with auxiliary, end caps PSB-END 4 (phase sequence L1-L2-L3-N-aux.(free)-free-free-free-free-L1)**

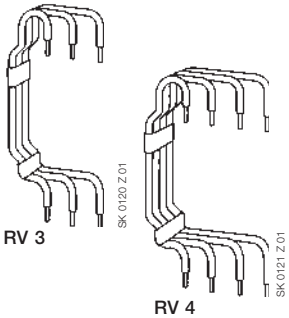
| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 36 | 4 | 16 | 1.73 | 652612 | PS 4/36/16H-DDA 204T | 2CDL 041 204 R1636 | | | 10 |

## End caps

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | | | | 638913 | END 1.1 | 2CDL 200 011 R0011 | | 0.001 | 50 |
| | | | | 652261 | PS-END 0 | 2CDL 200 001 R0004 | | 0.001 | 50 |
| | | | | 514729 | PS-END | 2CDL 200 001 R0001 | | 0.001 | 50 |
| | | | | 570114 | PS-END 1 | 2CDL 200 001 R0002 | | 0.001 | 50 |
| | | | | 646505 | PS-END SP | 2CDL 200 110 R0001 | | 0.001 | 50 |
| | | | | 646512 | PS-END 1 SP | 2CDL 200 110 R0002 | | 0.001 | 50 |
| | | | | 654302 | PS-END 3 | 2CDL 200 001 R3001 | | 0.001 | 50 |
| | | | | 654319 | PS-END 3.1 | 2CDL 200 001 R3002 | | 0.001 | 50 |
| | | | | 556304 ① | PSB-END 3 | GHV0 361 325 R0001 | | 0.001 | 50 |
| | | | | 556403 ① | PSB-END 4 | GHV0 361 325 R0002 | | 0.001 | 50 |
| | | | | 950060 | PS-END 3 BP-C | 2CDL200489R0003 | | 0.001 | 50 |

① bbn-No. 4012233

# Accessories
## for S 200, SN 201, F 200, DS 200 and other series



RV 3

RV 4

### Rail connectors

For wiring of component rails in the consumer unit, rail-to-rail clearance 125 mm. In the case of the 4-pole connector, the color of the N conductor is blue.

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| 10 | 3-pole | | | 512381 | RV 3 | GH V036 0504 R0023 | | 0.080 | 25 |
| 10 | 4-pole | | | 512244 | RV 4 | GH V036 0504 R0024 | | 0.114 | 25 |



SZ-BSK

### Auxiliary contact bridge for bottom-fitting auxiliary contacts

Wire jumper for integrated auxiliary contact (MCB S200 H or auxiliary contacts S2C-H01/S2C-H10) for series connections (HKB) or parallel connections (HKB1).

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 1/2 mod. | | | | 523134 | GH V036 0504 R0100 | | 0.001 | 1000 |
| | 1 mod. | | | | 524209 | GH V036 0504 R0101 | | 0.001 | 1000 |



BSK

### Shock-protection caps for PS...

| No. of pins | Phases | mm² | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | kg | EAN | Type code | Order code | | kg | pc. |
| | 5 parts | | | 420006 | SZ-BSK | 2CDL 200 001 R0011 | | 0.003 | 10 |
| | 5 parts | | | 649834 | BSK* | 2CDL 200 001 R0012 | | 0.003 | 10 |

* closed version



identification label

### Shock-protection caps for busbars

PS...BP - see page 4/33
PS...SP - see page 4/34

### Labelling system

Package comes with 40 labels, marked or blank. Blank labels can be labeled by hand with an indelible, waterproof pen or using a computerised labelling system (plotter).

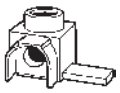
| Description | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit | |
|---|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. | |
| identification labels blank | 478106 | BS | GH S200 1946 R0001 | | | 0.004 | 30 |
| identification labels with pictograms | 478205 | BS Pikto | GH S200 1946 R0002 | | | 0.004 | 30 |
| identification labels marked 4 x 1 – 10 | 478304 | BS 1/10 | GH S200 1946 R0003 | | | 0.004 | 30 |
| identification labels marked 2 x 1 – 20 | 478403 | BS 1/20 | GH S200 1946 R0004 | | | 0.004 | 30 |
| identification labels marked 1 – 40 | 478502 | BS 1/40 | GH S200 1946 R0005 | | | 0.004 | 30 |
| identification labels marked 41 – 80 | 585910 | BS 41 – 80 | GH S200 1946 R0006 | | | 0.004 | 30 |
| identification labels marked 81 – 120 | 585927 | BS 81 – 120 | GH S200 1946 R0007 | | | 0.004 | 30 |
| identification labels marked 121 – 160 | 585934 | BS 121/160 | GH S200 1946 R0008 | | | 0.004 | 30 |

# Accessories
## for S 200, SN 201, F 200, DS 200 and other series



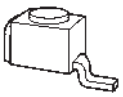

**BS 1/10** Sk 0103 Z99





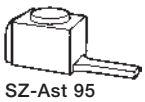
S0068Z94

**Ast 25/15 QS**
**Ast 25/15 Q**
**Ast 25/30 QS**
**Ast 25/30 Q**
**Ast 50/15 QS**
**Ast 50/15 Q**
**Ast 50/18 Q**
**Ast 50/32 Q**

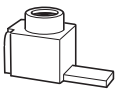


S0118Z01

**SZ-Ast 95 gk**

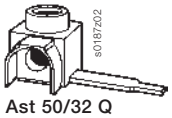


**SZ-Ast 95**



2CDC062220F0005

**Ast 25/15 S**
**Ast 50/15 S**
**Ast 50/15**
**Ast 50/18**



S0187Z02

**Ast 50/32 Q**

### Identification system ILS

The ILS individual identification sytem for labels is a DIN A5 polyester film for ink jet and laser printers with high temperature resistance. (If laser printers are used, please check whether self-adhesive film with thickness of 250 µm can be fed.) Adhesive coating 3MTM9471 LE has obtained UL approval (file No. MH 11410). There are two types of sheet: uncut for making individual labels or precut with 23 stripes (6 x 191 mm each) for labelling 11 devices (1-module width) per stripe. Word template can be downloaded from www.abb.de/stotz-kontakt. Can also be used as write-on labels (ink, ballpoint pen, pencil, marker).

| Description | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 sheet DIN A5 uncut for laser printer | 663076 | ILS-L | 2CDL 200 002 R0003 | | 0.011 | 1 |
| 1 sheet DIN A5 precut in 23 stripes (6 x 191 mm) for laser printer | 663083 | ILS-LS | 2CDL 200 002 R0004 | | 0.011 | 1 |
| 1 sheet DIN A5 uncut for inkjet printer | 663090 | ILS-I | 2CDL 200 002 R0005 | | 0.011 | 1 |
| 1 sheet DIN A5 precut in 23 stripes (6 x 191 mm) for inkjet printer | 663106 | IILS-IS | 2CDL 200 002 R0006 | | 0.011 | 1 |

### Terminals, insulated with pin contact

| Technical features | | | |
|---|---|---|---|
| Connection capacity | 6-25 mm² | 6-50 mm² | 25-95 mm² |
| Max. electrical load | 63 A | 100 A | 225 A |
| Max. operating voltage | 600 V AC | 600 V AC | 690 V AC |
| Max. tightening torque | 2 Nm | 3 Nm | 19 Nm |

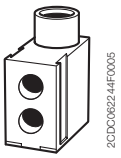
The terminals are single-phase. When combined in a multi-phase installation the required clearance and creepage distances needs to be considered!

| Conn. capacity mm² | Terminal lug LxW mm | Type of connection | Cu-No. kg | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 6-25 | 15/4 | 90° | 0.012 | 656535 | Ast 25/15 QS | 2CDL200010R2515 | | | 50 |
| 6-25 | 15/4 | straight | 0.012 | 656542 | Ast 25/15 S | 2CDL200011R2515 | | | 50 |
| 6-25 | 15/6 | 90° | 0.012 | 656474 | Ast 25/15 Q | 2CDL200000R2515 | | | 50 |
| 6-25 | 22/4 | 90° | 0.012 | 669436 | Ast 25/22 QS | 2CDL200010R2522 | | | 50 |
| 6-25 | 30/4 | 90° | 0.012 | 656481 | Ast 25/30 QS | 2CDL200010R2530 | | | 50 |
| 6-25 | 30/6 | 90° | 0.014 | 656498 | Ast 25/30 Q | 2CDL200000R2530 | | | 50 |
| 6-50 | 15/4 | 90° | 0.014 | 656504 | Ast 50/15 QS | 2CDL200000R5015 | | | 50 |
| 6-50 | 15/4 | straight | 0.014 | 656566 | Ast 50/15 S | 2CDL200011R5015 | | | 50 |
| 6-50 | 15/7 | 90° | 0.014 | 656559 | Ast 50/15 Q | 2CDL200010R5015 | | | 50 |
| 6-50 | 15/7 | straight | 0.014 | 656511 | Ast 50/15 | 2CDL200001R5015 | | | 50 |
| 5-50 | 17.5/7 | 90° | 0.019 | 656580 | Ast 50/18 Q | 2CDL200100R5018 | | | 50 |
| 6-50 | 17.5/7 | straight | 0.019 | 656573 | Ast 50/18 | 2CDL200101R5018 | | | 50 |
| 6-50 | 32/6 | 90° | 0.017 | 656528 | Ast 50/32 Q | 2CDL200000R5032 | | | 50 |
| 25-95 | 21/6.5 | straight | 0.06 | 522618 | SZ-Ast 95 gk* | GHV0360501R0012 | | 0.067 | 50 |
| 25-95 | 21/6.5 | straight | 0.06 | 522625 | SZ-Ast 95* | GHV0360501R0013 | | 0.067 | 50 |

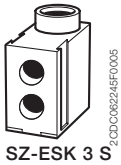
Abbreviations: Q terminal 90° * not for pro *M* compact S narrow connection pin




SZ-ESK 2




SZ-ESK 3




SZ-ESK 3 S



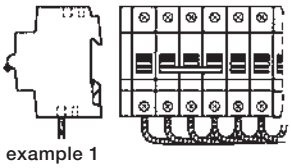
SZ-DB 121




SZ-DB 232 N



SZ-DB 125 N



example 1
wiring of devices consisting of modules with different lengths with SZ-DB 125 N or 312

## Feeder terminals

Single-pole terminals can be mounted side by side with multipole terminals.

| Conn. capacity | Terminal lug | Type of connec-tion | Cu-No. | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| mm² | LxW mm | | kg | EAN | Type code | Order code | | kg | pc. |
| 6-35 | | | | 646765 | SZ-ESK 2 | 2CDL200001R3501 | | 0.024 | 10 |
| 6-50 | | | | 652575 | SZ-ESK 3 | 2CDL200003R5001 | | 0.025 | 10 |
| 6-50 | | | | 652889 | SZ-ESK 3 S | 2CDL200003R5003 | | 0.024 | 10 |

## Flexible connecting wires

Advantages:

– smaller dimensions for the same cross-section (more space in terminal)
– nearly no transition resistances
– more reliability; conductor sleeves could be loosen under specific conditions

**with fork-type cable lug (black)**

| Conn. capacity | Lenght | | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm² | | | EAN | Type code | Order code | | kg | pc. |
| 6 | 125 | 0.006 | 55650 2 | SZ-DB 121 | GH V036 1425 R0001 | | 0.025 | 1000/50 |
| 10 | 135 | 0.010 | 55670 0 | SZ-DB 122 N | GH V036 1425 R0031 | | 0.02 | 500/25 |
| 6 | 260 | 0.014 | 55680 9 | SZ-DB 231 N | GH V036 1425 R0032 | | 0.02 | 500/25 |
| 10 | | 0.022 | 55690 8 | SZ-DB 232 N | GH V036 1425 R0033 | | 0.04 | 250/25 |
| 10 | 330 | 0.029 | 55700 4 | SZ-DB 311 | GH V036 1425 R0034 | | 0.05 | 100/25 |

**with fork-type cable lug and ultrasonic compacted cable ends (black)**

| Conn. capacity | Lenght | | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm² | | | EAN | Type code | Order code | | kg | pc. |
| 6 | 125 | 0.007 | 55660 1 | SZ-DB 123 | GH V036 1425 R0006 | | 0.01 | 1000/50 |
| 10 | 135 | 0.012 | 55710 3 | SZ-DB 124 N | GH V036 1425 R0035 | | 0.02 | 500/25 |
| 6 | 260 | 0.014 | 55720 2 | SZ-DB 235 | GH V036 1425 R0036 | | 0.02 | 500/25 |
| 10 | | 0.024 | 55730 1 | SZ-DB 236 | GH V036 1425 R0037 | | 0.04 | 250/25 |

**with ultrasonic compacted cable ends (black)**

| Conn. capacity | Lenght | | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm² | | | EAN | Type code | Order code | | kg | pc. |
| 6 | 125 | 0.007 | 55740 0 | SZ-DB 125 N | GH V036 1425 R0038 | | 0.01 | 1000/50 |
| 6 | 260 | 0.015 | 55750 9 | SZ-DB 233 N | GH V036 1425 R0039 | | 0.02 | 500/25 |
| 10 | 135 | 0.013 | 55760 8 | SZ-DB 126 N | GH V036 1425 R0040 | | 0.02 | 500/25 |
| 10 | 260 | 0.025 | 55770 7 | SZ-DB 234 N | GH V036 1425 R0041 | | 0.04 | 250/25 |
| 10 | 330 | 0.032 | 55780 6 | SZ-DB 312 | GH V036 1425 R0042 | | 0.05 | 100/25 |

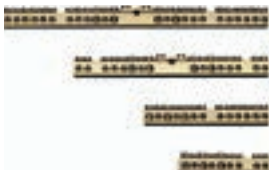
**with ultrasonic compacted cable ends (blue)**

| Conn. capacity | Lenght | | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm² | | | EAN | Type code | Order code | | kg | pc. |
| 10 | 135 | 0.013 | 66352 6 | SZ-DB 10/135 N | 2CDL 200 301 R0135 | | 0.02 | 25 |
| 10 | 260 | 0.025 | 66353 3 | SZ-DB 10/260 N | 2CDL 200 301 R0260 | | 0.04 | 25 |
| 10 | 330 | 0.032 | 66354 0 | SZ-DB 10/330 N | 2CDL 200 301 R0330 | | 0.05 | 25 |

# Accessories
## for S 200, SN 201, F 200, DS 200 and other series


2CSC400452F0201

SZ-6/3


2CSC400451F0201

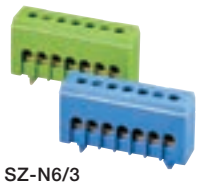
SZ-KLB 8, 12, 16, 24


2CSC400438F0201

SZ-Ktr


2CSC400335F0201

SZ-Ktr with KLB


2CSC400444F0201

SZ-N6/3


2CSC400440F0201

SZ-N11/3

### Neutral and protective-conductor terminals with insulation holder for quick fastening onto DIN rails EN 50 022

| Input mm² | Output mm² | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 x 16 | 6 x to 16 | 50592 5a | SZ-6/3 | GH V036 0876 R0003 | | 0.022 | 10 |
| 1 x 16 | 2 x to 16 6 x to 10 | 59660 7 | SZ-KLB 8 | GJ I232 0131 R0001 | | 0.025 | 30 |
| 1 x 16 | 2 x to 16 10 x to 10 | 59530 3 | SZ-KLB 12 | GJ I232 0071 R0013 | | 0.035 | 30 |
| 1 x 35 | 4 x to 16 12 x to 10 | 59540 2 | SZ-KLB 16 | GJ I232 0072 R0017 | | 0.077 | 30 |
| 1 x 35 | 4 x to 16 20 x to 10 | 59550 1 | SZ-KLB 24 | GJ I232 0073 R0016 | | 0.100 | 30 |

### Holders for SZ-KLB terminals

Screw-fixing

SZ-KLB 8 and 12 each 1 piece required

SZ-KLB 16 and 24 each 2 pieces required

| Conn. capacity mm² | Lenght | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| | | 59450 4 | SZ-Ktr | GJ I202 4027 R0001 | | 0.003 | 100 |

### Neutral and protective-conductor terminals with insulation holder for quick fastening onto DIN rails EN 50 022

Neutral with blue insulation holder; type C finger safe, conductor opening closed on one side

| Input mm² | Output mm² | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 x 16 | 6 x 16 | 55570 3 | SZ-N 6/3 | GH V036 0876 R0001 | | 0.027 | 20 |
| 1 x 16 | 11 x 16 | 55580 2 | SZ-N 11/3 | GH V036 0876 R0002 | | 0.043 | 20 |
| 1 x 16 | 6 x 16 | 57095 4 ① | SZ-N 6/3 C | GH V036 0876 R0011 | | 0.028 | 20 |
| 1 x 16 | 6 x 16 | 57096 1 ① | SZ-N 11/3 C | GH V036 0876 R0012 | | 0.046 | 20 |

Protective conductor with green/yellow insulation holder; type C finger safe, conductor opening closed on one side

| Conn. capacity mm² | Lenght | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 x 16 | 6 x 16 | 55600 7 | SZ-PE 6/3 | GH V036 0876 R0004 | | 0.027 | 20 |
| 1 x 16 | 11 x 16 | 55610 6 | SZ-PE 11/3 | GH V036 0876 R0005 | | 0.043 | 20 |
| 1 x 16 | 6 x 16 | 57097 8 ① | SZ-PE 6/3 C | GH V036 0876 R0014 | | 0.028 | 20 |
| 1 x 16 | 11 x 16 | 57098 5 ① | SZ-PE 11/3 C | GH V036 0876 R0015 | | 0.046 | 20 |

① bbn-No. 40 16779




SZ-BP 1



SZ-B



SZ-BP 2



SZ-BP 12 G




SZ-BP R




SZ-VP 1500




END




SZ-FDT 2

## Blanking plates

For device covers with materials of a thickness of 1 to 3 mm, width: 1 module = 17.5 mm; color: grey RAL 7035, white RAL 9001

| Input | Output | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm² | mm² | EAN | Type code | Order code | | kg | pc. |
| 46/grey | 213 | 06050 4 | SZ-BP 1 | GH L530 1904 R0001 | | 0.028 | 100 |
| 46/white | 17.5 | 12857 4 a | SZ-BP | GH S270 1913 R0001 | | 0.005 | |
| 46/grey | 17.5 | 12861 1 a | SZ-BP 2 | GH S270 1913 R0002 | | 0.005 | |
| 46/grey | 220 | 65227 8 a | SZ-BP 12 G | 2CDL 000 001 R1220 | | 0.022 | 50 |
| 46/white | 220 | 66355 7 b | SZ-BP 12 W | 2CDL 000 001 R2220 | | 0.020 | 50 |

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Locking devices for SZ-BP 12 G | 652285 a | SZ-BP R | 2CDL 000 001 R1001 | | 0.001 | 30 |

## Sealing plate

Seal-proof locking of stamped-out device covers.
Detachable only from the inside of the device cover.
Can be used for device covers with 1.5 to 3 mm material thickness.

| Height of cutout/ color | Width | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| mm | mm | EAN | Type code | Order code | | kg | pc. |
| 46/grey | 1500 | 60290 2 | SZ-VP 1500 | GJ I995 9038 R0001 | | 0.366 | 10 |

## End bracket

Prevents lateral shifting of built-in devices mounted on DIN rails according to DIN EN 60 715, 35 x 7.5 mm.

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 59090 2 | END | GJ I100 1814 R0001 | | 0.02 | 50 |

## Filling piece

e.g. for heat dissipation of closely mounted devices that generate much heat. Width 8.75 mm, as spacer, two different heights, breakable, for DIN rails according to DIN EN 60 715, 35 x 7.5 mm.

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 8.75 | 06070 2 | SZ-FST 2 | GH L530 1908 R0002 | | 0.01 | 25 |

## Spring piece

Holder for device covers, various heights available (in connection with FST 2 filling piece)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 06080 1 | SZ-FDT 2 | GH L530 1908 R0005 | | 0.002 | 25 |

# Accessories
## for S 200, SN 201, F 200, DS 200 and other series




SZ-FST 2 + SZ-FDT 2

### Filling piece

Two different heights, breakable, for DIN rails according to DIN EN 60 715, 35 x 7.5 mm
for MCBs S 220 (3 different heights)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 8.75 | 59410 8 | SZ-FST | GJ I148 0003 R0001 | | 0.01 | 25 |

① **bbn-Nr. 4016779**






SZ-FST

Spring catch for mounting devices onto DIN rails (DIN EN 60 715, 35 x 7.5)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| for screw type M4 | 64560 2 | SZ-FB 45.53-3 | GJ I184 2013 P0003 | | 0.03 | 50 |
| for screw type M5 | 64580 0 | SZ-FB 45.53-1 | GJ I184 2013 P0004 | | 0.03 | 50 |




SZ-FB 45.53-1

SZ-FB 45.53-3

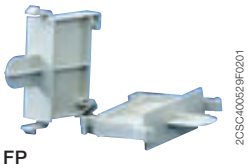
### False poles

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| False pole - 1 module | 061304 | FP1 | 16021765 | | 0.01 | 100 |
| False pole - 2 modules | 061403 | FP2 | 16021773 | | 0.014 | 50 |
| False pole - 4 modules | 061502 | FP4 | 16021781 | | 0.022 | 30 |
| False pole - 6 modules | 061601 | FP6 | 16021799 | | 0.031 | 20 |
| Support for false pole | 061700 | SFP | 16021831 | | 0.012 | 10 |










FP







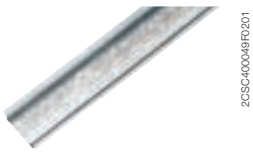
SKV-GTS 1




SZ-SI 45.460




SZ-TS 7.5 L2




SZ-SI 45.472




SZ-TS 15 L2

## DIN rails

DIN rails (DIN EN 60 715 – 35 x 7.5) for individual installation with 2 screws on an even surface (1 module = 17.5 mm)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| for 1 module | 13580 6 | DSW 1 | GH S210 1926 R0001 | | 0.060 | 10 |
| for 2 modules | 13590 5 | DSW 2 | GH S210 1926 R0002 | | 0.012 | 10 |
| for 3 modules | 13600 1 | DSW 3 | GH S210 1926 R0003 | | 0.018 | 10 |
| for 4 modules | 13610 0 | DSW 4 | GH S210 1926 R0004 | | 0.024 | 10 |
| for 6 modules | 13620 9 | DSW 6 | GH S210 1926 R0006 | | 0.036 | 10 |

DIN rail DIN EN 60 715, 35 x 7.5, material thickness 1 mm, surface protected, galvanised.

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 241 | 04090 2 | SKV-GTS 1 | GH L110 1915 R0001 | | 0.09 | 40 |

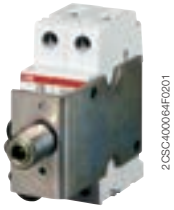
DIN rails DIN EN 60 715, 35 x 7.5, material thickness 1 mm, surface galvanised.

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1000 | 59730 7 | SZ-SI 45.460 | GJ I232 2218 R0001 | | 0.35 | 10 |
| 2000 | 59760 4 | SZ-TS 7.5 L2 | GJ I232 2218 R0007 | | 0.70 | 20 |

DIN rails DIN EN 60 715, 35 x 15, material thickness 1.5 mm, surface galvanised

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 2000 | 59780 2 | SZ-SI 45.472 | GJ I232 2218 R0010 | | 1.30 | 10 |
| 2000 | 59770 3 | SZ-TS 15 L2 | GJ I232 2218 R0009 | | 0.78 | 10 |

# Accessories
## for S 200, SN 201, F 200, DS 200 and other series




S2C-DH

### Rotary operating mechanism

For the actuation of 2-, 3- or 4pole miniature circuit-breakers in closed distribution boards for driveaxles of 5 or 6 mm² (square)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 57960 5 | S2C-DH | GH S200 1901 R0003 | | 0.175 | 1 |

4




OH

### Handles

Handle IP 65, 65 x 65 mm, padlockable with max. 3 padlocks (bail diameter 5 - 8 mm), door interlock in ON-position, adjustable*

| Color | Suitable for switches | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | | EAN | Type code | Order code | | kg | pc. |
| Black | OT16...40F | 40978 8 | OHBS2AJ | 1SCA105213R1001 | | | 1 |
| Yellow-red | OT16...40F | 41226 9 | OHYS2AJ | 1SCA105296R1001 | | | 1 |
| Silver | OT16...40F | 41199 6 | OHSS2AJ | 1SCA105278R1001 | | | 1 |
| Grey | OT16...40F | 41186 6 | OHGS2AJ | 1SCA105265R1001 | | | 1 |




OXS6X

Handle IP 65, 65 x 65 mm, padlockable with max. 3 padlocks (bail diameter 5 - 8 mm), door interlock in ON-position

| Color | Suitable for switches | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | | EAN | Type code | Order code | | kg | pc. |
| Black | OT16...40F | 41140 8 | OHBS2AJ1 | 1SCA105215R1001 | | | 1 |
| Yellow-red | OT16...40F | 41227 6 | OHYS2AJ1 | 1SCA105297R1001 | | | 1 |
| Silver | OT16...40F | 41210 8 | OHSS2AJ1 | 1SCA105279R1001 | | | 1 |
| Grey | OT16...40F | 41187 3 | OHGS2AJ1 | 1SCA105266R1001 | | | 1 |

* OH_2_J enables selection of MCB behavior when opening panel door (remain switched on or switch off). OH_2_J1 will cause MCB to switch off when opening panel door.

### Axle extension

Type and order numbers are for one piece. For selector type handles. Shaft diameter 6 mm.

| Lenght | Suitable for switches | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | | EAN | Type code | Order code | | kg | pc. |
| 85 | OT16...40F | 36571 8 | OXS6X85 | 1SCA101647R1001 | | 0.02 | 10 |
| 105 | OT16...40F | 42411 8 | OXS6X105 | 1SCA108043R1001 | | 0.02 | 10 |
| 120 | OT16...40F | 36578 7 | OXS6X120 | 1SCA101654R1001 | | 0.03 | 10 |
| 130 | OT16...40F | 36577 0 | OXS6X130 | 1SCA101655R1001 | | 0.03 | 10 |
| 160 | OT16...40F | 36580 0 | OXS6X160 | 1SCA101656R1001 | | 0.04 | 10 |
| 180 | OT16...40F | 36583 1 | OXS6X180 | 1SCA101659R1001 | | 0.04 | 10 |
| 250 | OT16...40F | 36584 8 | OXS6X250 | 1SCA101660R1001 | | 0.05 | 10 |
| 330 | OT16...40F | 36585 5 | OXS6X330 | 1SCA101661R1001 | | 0.05 | 10 |




SZ-ES 68/83

## Elevation piece

Compensates for different size of built-in devices with a mounting height of 68 mm and power MCBs of series S500 (83 mm)

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 53390 9 | SZ-ES 68/83 | GH V021 1425 R0001 | | 0.003 | 100 |




SA 1

## Locking device for MCBs and switches

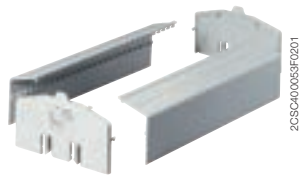
Prevents unauthorised or dangerous operation of the operating lever. An adaptor makes it possible to block the operating lever whether switched ON or OFF. The lever is blocked with a padlock having a cross bar section of 3 or, as the case may be, 6 mm max. For multipole devices, one lock may be fitted per pole.

The lock adaptor can be used for all MCBs of the S 200, S 280 series, RCBOs DS201-DS202C as well as for switches E 200.

| | | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | | EAN | Type code | Order code | | kg | pc. |
| locking devices | 3 mm | 58760 5 | SA 1 | GJ F110 1903 R0001 | | 0.004 | 10 |
| for padlock bar | 6 mm | 58790 2 | SA 1E | GJ F110 1903 R0004 | | 0.004 | 10 |
| padlock with 2 keys | | 58770 4 | SA 2 | GJ F110 1903 R0002 | | 0.02 | 10 |
| padlock, identical locking with 2 keys | | 96940 1 | SA 2 i | GJ F110 9999 R0001 | | 0.02 | 10 |
| lock adaptor incl. padlock with 3 keys in transparent box | | 58780 3 | SA 3 | GJ F110 1903 R0003 | | 0.05 | 10 |




SA 2




KA 27 H + KA 27 S

## Terminal cover KA 27

Provides overall touch protection of live parts. Suitable for installations acc. to DIN EN 50274 (DIN VDE 0660 Part 514) and BGV A2.

End parts can be snapped onto mounting rails EN 60 715, 35 mm. Covers are 486 mm = 27 modules (18 mm each) long. Knockouts for each half module for individualised use.

| | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| cover, 1 piece | 13630 8 | KA 27 H | GH S210 1933 R0001 | | 0.104 | 10 |
| end part, 1 piece | 13640 7 | KA 27 S | GH S210 1934 R0001 | | 0.027 | 10 |



PCD 2 N




PCD 4 N

## Terminal covers with base plate, protection IP 40

Material: high-impact and flame-retardant (UL 94 V-0), color: white (RAL 9016), glow-wire test 960 °C according to IEC 695-2-1

The base plate has an integrated top-hat rail for snap-on fixing of MCBs, RCDs, modular built-in devices, etc.

| | Bbn 8000126 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| for 2 modules | 12402 6 | PCD 2 N | GH S270 1921 R0002 | | 0.09 | 1 |
| for 4 modules | 12404 0 | PCD 4 N | GH S270 1921 R0004 | | 0.15 | 1 |
| for 6 modules | 12406 4 | PCD 6 N | GH S270 1921 R0006 | | 0.2 | 1 |

# Accessories
# for S 200, SN 201, F 200, DS 200 and other series



## Flanges

| | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Flange for rear board fixing 1 module - IP40 | 304401 | ME 1 | 16219300 | | 0.040 | 1 |
| Flange for rear board fixing 2 modules - IP40 | 304500 | ME 2 | 16219318 | | 0.045 | 1 |
| Flange for rear board fixing 3 modules - IP40 | 304609 | ME 3 | 16219326 | | 0.055 | 1 |
| Flange for rear board fixing 4 modules - IP40 | 304708 | ME 4 | 16219334 | | 0.060 | 1 |
| Flange for rear board fixing 6 modules - IP40 | 304807 | ME 6 | 16219342 | | 0.070 | 1 |
| Flange for rear board fixing 8 modules - IP40 | 304906 | ME 8 | 16219359 | | 0.080 | 1 |

# Auxiliary elements
# for S750 DR series



| | | S750DR-AUX | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical data** | | | | | | | | | |
| Standards | | DIN EN 62019 (VDE 0640), IEC/EN 62019 | | | | | | | |
| | | DIN EN 60947-5-1 (VDE 0660-200), IEC/EN 60947-5-1 | | | | | | | |
| Conventional free air thermal current Ith | | 6 A | | | | | | | |
| Utilisation categories | | AC14 | | AC15 | | DC12 | | DC13 | |
| | Ue | 400 V | 230 V | 400 V | 230 V | 250 V | 125 V | 60 V | 24 V |
| | Ie (max) | 2 A | 6 A | 2 A | 6 A | 0.5 A | 1.5 A | 2 A | 4 A |
| Rated insulation voltage U acc. to IEC/EN 60664-1 | | 690 V AC | | | | | | | |
| Overvoltage category | | IV | | | | | | | |
| Pollution Degree | | 3 | | | | | | | |
| Protection degree acc. to IEC/EN 60529 | | IP20 | | | | | | | |
| Min. switching power DC | | 5V DC/5 mA, 12V DC/5 mA | | | | | | | |
| Rated impuls withstand voltage Uimp (1.2/50 µs) | | 6 kV | | | | | | | |
| **Installation** | | | | | | | | | |
| Cross-section of | 1 conductor | 0.75 - 2.5 mm² solid, flexibel with and without insulated ferrule conductors | | | | | | | |
| | 2 conductor | 2 x 0.75 - 2 x 2.5 mm² solid, flexibel with and without insulated ferrule | | | | | | | |
| Tightening torque | | 0.8 Nm | | | | | | | |
| **Mechanical data** | | | | | | | | | |
| Vibration resistance according to IEC/EN 60 068-2-6 | | 5 g, 20 cycles at 5 ...150...5 Hz with 24 V AC/DC, 5 mA, without switching operation | | | | | | | |
| Mechanical endurance | | 10,000 ops. | | | | | | | |
| Pole dimensions (H x D x W) | | 128 x 77 x 8.7 | | | | | | | |
| **Mounting** | | | | | | | | | |
| | | Only 1 auxiliary contact mountable on the right site | | | | | | | |
| | | Not mountable to S751DR/3 | | | | | | | |

# Auxiliary elements for S750 DR



S750DR-AUX

4

## Auxiliary contact S750DR-AUX

Two change-over contacts indicate the contact position of the S750 DR pole(s) independently and potential-free. A test button can be used to verify the correct indication of the contact position without switching the pole(s).
The change-over contacts fulfill the requirements of electrical separation of the main circuit connected to the pole(s).
The S750DR-AUX can be mounted on S750 DR 1-4 pole-devices without tools.

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Auxiliary contact | 941891 | S750DR-AUX | 2CDH700901R0001 | | 0.07 | 1 |

# Accessories for S 700




S 700 BT 3




S 700 KA 1




S 700 KA 2/3




S 700 KA 4




S 700 KA 5




S 700 SPA




S 700 SPB 1
S 700 SPB 2




S 700 QA




S 700 SA 1




S 700-SPE

## Mounting adapters

### DIN rail adapter
**for mounting S 700 onto 1 or 2 DIN rails 35 mm acc. to EN 50022 (distance of DIN rails 125 mm when using 2 DIN rails)**

| | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| no. to be used:<br>S701: 1 pc.<br>S 702, S703, S704: 2 pc | 28440 0 | S 700 BT 3 | GHS7 001 902 R0003 | | | 10 |

### Busbar adapter
**for mounting onto 40 mm busbar systems, 4 or 5 pole, with busbars 5 x 12 mm or 10 x 12 mm**

| | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| single phase: L1 or L2 or L3 (adjustable) | 25430 4 ① | S 700 SA 1 | GHS7 001 917 R0001 | | 0.105 | 1 |
| 3-phase | 52793 4 ① | S 700 QA | GHS7 001 106 R0001 | | 0.35 | 1 |

### Terminal covers, 2 per pole

| | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| within the shape of S 700 | 52050 3 | S 700 KA 1 | GHS7 001 903 R0001 | | 0.001 | 6 |
| for cutouts of 160 mm | 52090 9 | S 700 KA 2 | GHS7 001 907 R0001 | | 0.01 | 6 |
| for cutouts of 175 mm | 52100 5 | S 700 KA 3 | GHS7 001 908 R0001 | | 0.01 | 6 |
| with cable entry | 52140 1 | S 700 KA 4 | GHS7 001 913 R0001 | | 0.015 | 6 |
| for IP20 protection (front) | 24300 1 ① | S 700 KA 5 | GHS7 001 903 R0005 | | 0.003 | 6 |

### Handle covers, 1 per pole

| | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| to prevent manual switch-off | 52060 2 | S 700 SPA | GHS7 001 905 R0001 | | 0.001 | 10 |
| to prevent manual switch-off/-on, transparent | 52070 1 | S 700 SPB 1 | GHS7 001 906 R0001 | | 0.002 | 10 |
| to prevent manual switch-off/-on, grey | 52080 0 | S 700 SPB 2 | GHS7 001 906 R0002 | | 0.002 | 10 |

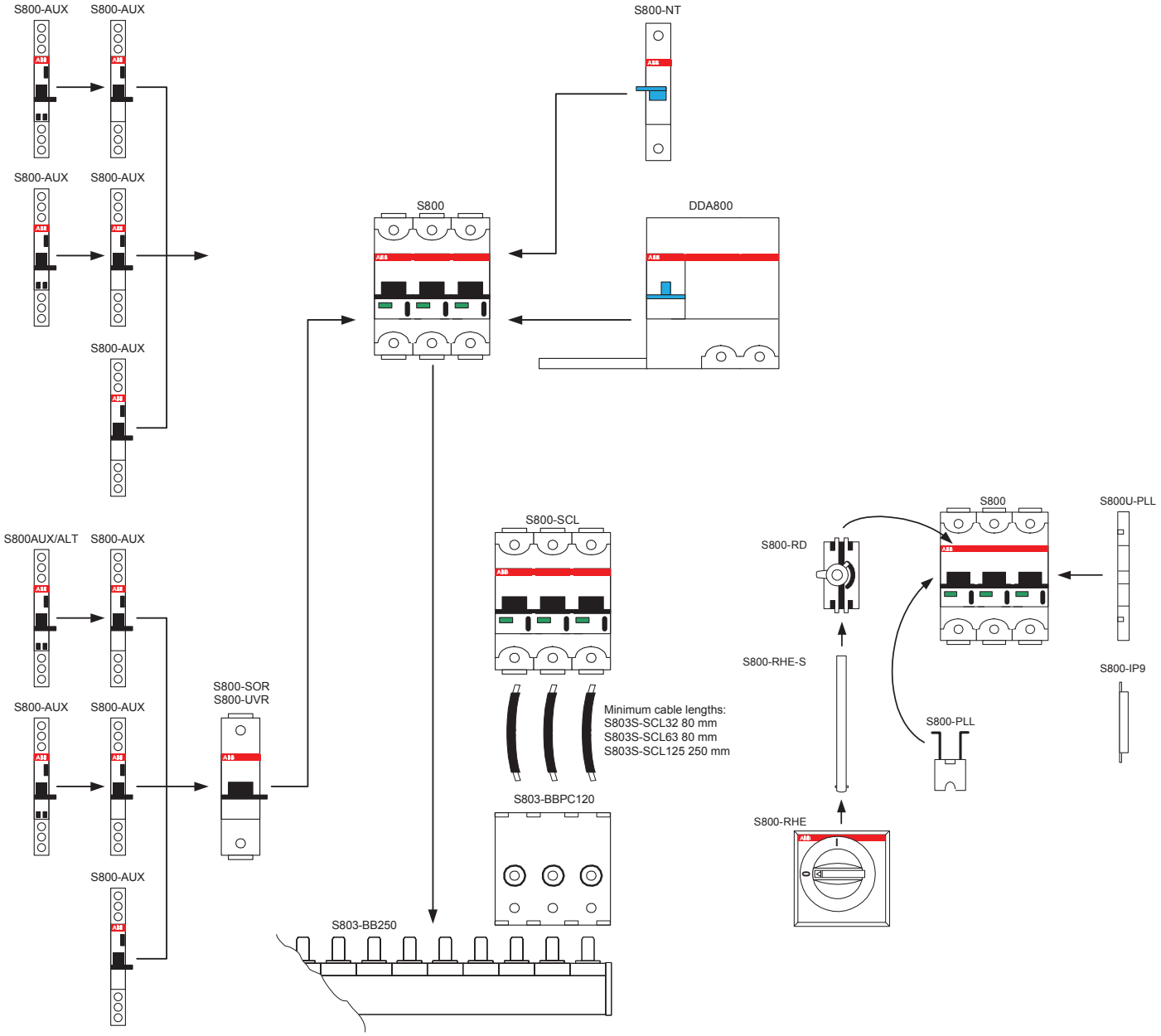
### Locking for 3 mm padlock

| | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| locking plate 3 pole | 52110 4 | S 700 SPE | GHS7 001 909 R0001 | | 0.002 | 10 |

① bbn-No. 4016779

# Auxiliary elements for MCBs S800 series
## Selection table

### Combination between auxiliary elements and S800




| | |
|---|---|
| **S800-AUX** | Auxiliary contact for external display |
| **S800-AUX/ALT** | Combined auxiliary and signal contact for the external display |
| **S800-NT** | Disconnectable neutral conductor 63A |
| **S800-SOR** | Shunt opening release |
| **DDA800** | RCD block |
| **S803-BB** | Busbar system |
| **S800RD** | Rotary drive |
| **S800-RHE** | Rotary handle |
| **S800-IP** | Intermediate piece |
| **S800-PLL/S800U-PLL** | Padlock device/Locking device for American market |
| **S800-UVR** | Undervoltage release |
| **S803-SCL/S800-SCL-SR** | Short-circuit current limiter/Short-circuit current limiter self resetting |

# Auxiliary elements for S800




**S800-RSU**

| Remote switch unit S800-RSU-H | | |
|---|---|---|
| Operating voltage | [V] | 24 DC |
| Current consumption Irms | [A] | 2.5 |
| Stand-by current | [mA] | < 50 |
| Switching time OFF-ON | [ms] | < 500 |
| Switching time ON-OFF | [ms] | < 250 |
| Ambient operation temperature | [°C] | -25…+70 |
| Switching cycles over lifetime | | 10000 |
| Standard | | IEC 60947-2 Annex N |
| Protection | | IP20 |
| Weight | [g] | 300 |
| Connection | | 10 pole Micro Fit 3.0 |

| Short circuit limiter S803S-SCL | | | |
|---|---|---|---|
| Max. rated continuous current In | | [A] | 32, 63, 125 |
| Poles | | | 3 |
| Rated operating voltage Ue (AC) 50/60Hz | | [V] | 400/690 |
| Rated insulation voltage Ui | | [V] | 690 |
| Rated impulse withstand voltage Uimp | | [kW] | 8 |
| Ultimate short-circuit breaking capacity Icu in accordance with IEC 60947-2 | 400VAC | [kA] | 100 |
| | 440VAC | [kA] | 100 |
| | 690VAC | [kA] | 50 |
| Valid combination see: http://www.abb.com/product Low Voltage Products and Systems/Modular DIN Rail Products/High Performance Circuit Breakers HPCBs/Software | | | |
| Service short-circuit breaking capacity Ics in accordance with IEC 60947-2 | | | 100% Icu |
| Rated frequency | | [Hz] | 50/60 |
| Mounting position | | | any |
| Disconnector proporties according to IEC 60947-2 | | | yes |
| Standard | | | IEC 60947-2 |
| Connection Cu | | [mm²] | 1...25 strand |
| | | | 1...35 cable |
| Connection Cu > 32 A | | [mm²] | 6...50 strand |
| | | | 6...70 cable |
| Tightening torque | | [Nm] | min. 3/max. 4 |
| Supply | | | any |
| Mounting on DIN top hat rail | | | EN 60715 |
| Permissible ambient temperature for operations | | [°C] | -25...+60 |
| Storage temperature | | [°C] | -40...+70 |
| Type of protection | | | IP20<br>IP40 (only actuation side) |
| Classification in accordance with NF-16-101, NF16-102 | | | I3F2 |
| Resistance to vibration | | | IEC 60068-2-27; IEC 60068-2; EN 61373 Cat.1/class B |

# Auxiliary elements for S800

## Self-resetting short-circuit current limiter

| | | | S800S-SCL-SR | S803W-SCL-SR | S803HV-SCL-SR in combination with S803HV-K |
|---|---|---|---|---|---|
| Rated operational current Ie | | A | 32, 63, 100 | | |
| Pole | | | 1, 2, 3 | 3 | 3 |
| Rated operational voltage Ue | | | | | |
| (AC) according to IEC 60947-2 | 50/60 Hz | V | 400/690 | 690 | 580/1000 |
| (AC) according to UL 508 | 50/60 Hz V | | | 600 | |
| Rated insulation voltage Ui | | V | 690 | | 1000 |
| Rated impulse withstand voltage Uimp | | kV | 8 | | |
| Rated ultimate short-circuit breaking capacity Icu = Ics according to IEC 60947-2 * | | | | | |
| (AC) 50/60 Hz 240/415 V | | kA | 100 | | |
| (AC) 50/60 Hz 254/440 V | | kA | 100 | | |
| (AC) 50/60 Hz 289/500 V | | kA | 65 | | |
| (AC) 50/60 Hz 400/690 V | | kA | 50 | | |
| (AC) 50/60Hz 580/1000 V | | | | | 15 |
| Short-circuit rating according to UL 508 * | | | | | |
| (AC) 50/60 Hz 480 V | | kA | 65 | | |
| (AC) 50/60 Hz 600 V | | kA | 65 | | |

*) Valid only for approved combinations
Please have a look to coordination tables in chapter 2, of Solutions for electrical distribution in buildings - Technical details

| | | | | |
|---|---|---|---|---|
| Rated frequency | Hz | 50/60 | | |
| Mounting position | | any | | |
| Connections Cu | $mm^2$ | 1 … 50 rigid (solid/stranded) | | |
| | $mm^2$ | 1 … 70 flexible | | |
| | | | 14–1 AWG | |
| Tightening torque | Nm | 3.5 | | |
| | in. lbs. | | min. 26.5 / max. 25 | |
| Feeding | | optional | | |
| Mouting on DIN top hat rail E | | N 60715 | | |
| Ambient air temperature | °C | –40 … +70 | | –25 … +60 |
| Storage temperature | °C | –40 … +85 | | –40 … +70 |
| Degree of protection | | IP20 | | |
| Classification acc. to NF F 16-101, NF F 16-102 | | I3, F2 | | |
| Damp Heat | | IEC 60068-2-30, 55 °C / 95 % r.h. | | |
| Vibration | | IEC 60068-2-6, 5–10 Hz / 3 mm and 10–500 Hz / 2 g at 0.5 x Ie | | |
| Random Vibration | | IEC 60068-2-64, 5–500 Hz / 2 g at 0.5 x Ie | | |
| Resistance to climatic conditions | | IEC 60068-2-1 /-2-2 /-2-30 | | |
| Standard | | IEC 60947-2 | IEC 60947-2 | IEC 60947-2 |
| | | IEC 60947-4-1 | IEC 60947-4-1 | |
| | | | UL 508, CSA 22.2 No. 14 | |

| Auxiliary contact S800-AUX | | |
|---|---|---|
| Utilisation category | | AC15 400/2A |
| | | AC15 240/6A |
| | | DC13 250/0.55A |
| | | DC13 125V/1.1A |
| | | DC13 60V/2A |
| | | DC13 24V/4A |
| Continuous thermal current In | [A] | 6 |
| Rated insulation voltage Ui | [V] | 690 |
| Number of contacts | | 2 |
| Rated impulse withstand voltage Uimp | [kV] | 6 |
| Pollution degree | | 3 |
| Function of contact | | Changeover contacts |
| Connection Cu | [$mm^2$] | 1 x 2.5 |
| | | 2 x 1.5 |
| Tightening torque | [Nm] | 1 |
| AC/DC supply | | any |
| Mounting on DIN top hat rail | | EN 60715 |
| Type of protection | | IP20 |
| Permissible ambient temperature for operations | [°C] | -25...+60 |
| Storage temperature | [°C] | -40...+70 |
| Mech. device service life | | 6000 switching cycles |
| Icu with S450E | [A] | 1000 |
| Resistance to vibration | | IEC 60068-2-6;<br>EN 61373 Cat.1/class B<br>5g, 20 frequency cycle 5...150...5Hz<br>at 24V AC/DC, 5mA<br>brief interrupt <10ms |

# Auxiliary elements for S800



| Combined auxiliary and signal contact S800 AUX/ALT | | |
|---|---|---|
| Utilisation category | | AC15 400/2A |
| | | AC15 240/6A |
| | | DC13 250/0.55A |
| | | DC13 125V/1.1A |
| | | DC13 60V/2A |
| | | DC13 24V/4A |
| Continuous thermal current In | [A] | 6 |
| Rated insulation voltage Ui | [[A]] | 690 |
| Number of contacts | | 2 (1x AUX, 1 x AUX/ALT) |
| Rated impulse withstand voltage Uimp | [kV] | 6 |
| Pollution degree | | 3 |
| Function of contact | | Changeover contacts |
| Connection Cu | [$mm^2$] | 1 x 2.5 |
| | | 2 x 1.5 |
| Tightening torque | [Nm] | 1 |
| AC/DC supply | | any |
| Mounting on DIN top hat rail | | EN 60715 |
| Type of protection | | IP20 |
| Permissible ambient temperature for operations | [°C] | -25...+60 |
| Storage temperature | [°C] | -40...+70 |
| Mech. device service life | | 6000 switching cycles |
| Icu with S450E | [A] | 1000 |
| Resistance to vibration | | IEC 60068-2;<br>EN 61373 Cat.1/class B 5g, 20 frequency cycle<br>5...150...5Hz<br>at 24V AC/DC, 5mA<br>brief interrupt <10ms |

## Shunt Operation Release S800-SOR

| | | S800-SOR24 | S800-SOR130 | S800-SOR250 | S800-SOR400 |
|---|---|---|---|---|---|
| Rated voltage Ue | [V AC/DC] | 24 | 48...130 | 110...250 | 220...400/250 a |
| Operating range | [%] Ue | 70...110 | | | |
| Rated insulation voltage Ui | [V] | 690 | | | |
| Coil pull in consumption | [W/VA] | 16.6/17 a | 41.9...307.3 | 23...119 | 45...148.1 |
| | | | 42...310 ① | 20...105 ① | |
| Rated frequency | [Hz] | DC; 50/60 | | | |
| Pollution degree | | 3 | | | |
| Connection Cu | [mm²] | 1...25 strand | | | |
| | | 1...35 cable | | | |
| Tightening torque | [Nm] | min.3/ max.4 | | | |
| AC/DC supply | | any | | | |
| DIN top hat rail | | EN 60715 | | | |
| Type of protection | | IP20 | | | |
| | | IP40 (only actuation side) | | | |
| Permissible ambient temperature of operations | [°C] | -25...+60 | | | |
| Storage temperature | [°C] | -40...+70 | | | |
| Resistance to vibration | | IEC 60068-2-6; EN61373 Cat.1/class B | | | |

① according to UL 489

## Undervoltage Release S800-UVR

| | | | S800-UVR36 | S800-UVR60 | S800-UVR130 | S800-UVR250 |
|---|---|---|---|---|---|---|
| Rated voltage Ue | | [V AC/DC] | 24...36 | 48...60 | 110...130 | 220...250 |
| Operating range | Operating opening | [%] Ue | 35...70 | | | |
| | Operating closing | [%] Ue | 85 | | | |
| Rated insulation voltage Ui | | [V] | 690 | | | |
| Coil pull in consumption | | [W/VA] | 1.11...1.14/1.2 | 1.14...1.25/1.3 ① | 1.3...1.41/1.4 ① | 1.71...1.91/1.9 ① |
| Rated frequency | | [Hz] | DC; 50/60 | | | |
| Pollution degree | | | 3 | | | |
| Standard | | | IEC 60947-5-1, UL 489 | | | |
| Connection Cu | | [mm²] | 1...25 strand | | | |
| | | | 1...35 cable | | | |
| Tightening torque | | [Nm] | min.3/ max.4 | | | |
| AC/DC supply | | | any | | | |
| DIN top hat rail | | | EN 60715 | | | |
| Type of protection | | | IP20 | | | |
| | | | IP40 (only actuation side) | | | |
| Permissible ambient temperature of operations | | [°C] | -25...+60 | | | |
| Storage temperature | | [°C] | -40...+70 | | | |
| Resistance to vibration | | | IEC 60068-2-6; EN61373 Cat.1/class B | | | |

① according to UL 489

# Auxiliary elements for S800



| Busbar S803-BB250 | | | |
|---|---|---|---|
| Max. rated continuous current In | Side supply | [A] | 125 |
| | Central supply | [A] | 250 |
| Conditional short circuit current Ip | | [kA eff] | 100 protected by Tmax |
| Poles | | | 3 |
| Rated operating voltage Ue (AC) 50/60Hz | | [V] | 400/690 |
| Rated insulation voltage Ui | | [V] | 690 |
| Rated impulse withstand voltage Uimp | | [kV] | 8 |
| Rated frequency | | [Hz] | 50 |
| Standards | | | EN 60439-2:2000 |
| Material of the bars | | | E-Cu 58 half-hard rolled F25 |
| Material of the insulation profile | | | Cycoloy C 3600; UL94 V-0 at 1.5mm |
| Material of the end caps | | | Polyamide PA66+PA6; UL94 V-0 at 0.4mm Free of halogen and phosphorus |
| Busbar cross-sections | | [mm²] | 60 |
| Overvoltage category | | | III |
| Polution degree | | | 2 |

| Busbar Power Connector S803-BBPC120 | | |
|---|---|---|
| Max. rated continuous current In | [A] | 250 |
| Poles | | 3 |
| Rated operating voltage Ue | [V] | 400/690 |
| Rated frequency | [Hz] | 50 |
| Standards | | EN 60439-2:2000 |
| Material of the terminals | | CuZn39Pb2; material no.: 2.0380 |
| Casing material | | Polyamide PA66+PA6; UL94 V-0 at 0.4mm Free of halogen and phosphorus |
| Tightening torque | | |
| At supply end | [Nm] | 19 |
| At busbar end | [Nm] | 3 |
| Connection cross-section | [mm²] | 1.6...120 |
| Polution degree | | 2 |




S800-RSU



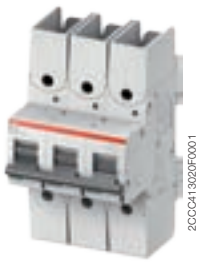

S800-RSU-CP

| Remote switching unit | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
| Remote switching unit | 411244 | S800-RSU-H | 2CCS800900R0501 | | 0.300 | 1 |

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| S800-RSU cable with plug | 412869 | S800-RSU-CP | 2CCS800900R0541 | | 0,35 | 1 |
| 10-pole Micro Fit 3.0 plug | 412845 | S800-RSU-P | 2CCS800900R0551 | | 0 | 1 |




S800S-SCL




S800S-SCL-R




S800S-SCL-SR




S800W-SCL-SR




S803HV-SCL-SR for S800HV

**Short-circuit current limiters with cage terminal**

| Description | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A | EAN | Type code | Order code | | kg | pc. |
| 32 | 208912 | S803S-SCL32 | 2CCS800900R0291 | | 0.735 | 1 |
| 63 | 208929 | S803S-SCL63 | 2CCS800900R0301 | | 0.735 | 1 |
| 125 | 208905 | S803S-SCL125 | 2CCS800900R0281 | | 0.735 | 1 |

**Short-circuit current limiters with ring terminal cable connection**

| Description | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 32 | 408916 | S803S-SCL32-R | 2CCS800900R0332 | | 0.735 | 1 |
| 63 | 208950 | S803S-SCL63-R | 2CCS800900R0331 | | 0.735 | 1 |
| 125 | 208936 | S803S-SCL125-R | 2CCS800900R0311 | | 0.735 | 1 |

**Self-resetting short-circuit limiter IEC version**

| Description | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A | EAN | Type code | Order code | | kg | pc. |
| 32 | 412012 | S801S-SCL32-SR | 2CCS801901R0539 | | 0,25 | 1 |
| 63 | 412036 | S801S-SCL63-SR | 2CCS801901R0599 | | 0,25 | 1 |
| 100 | 411992 | S801S-SCL100-SR | 2CCS801901R0639 | | 0,25 | 1 |
| 32 | 412074 | S802S-SCL32-SR | 2CCS801901R0539 | | 0,5 | 1 |
| 63 | 412098 | S802S-SCL63-SR | 2CCS801901R0599 | | 0,5 | 1 |
| 100 | 412050 | S802S-SCL100-SR | 2CCS801901R0639 | | 0,5 | 1 |
| 32 | 411930 | S803S-SCL32-SR | 2CCS803901R0539 | | 0,75 | 1 |
| 63 | 411947 | S803S-SCL63-SR | 2CCS803901R0599 | | 0,75 | 1 |
| 100 | 411954 | S803S-SCL100-SR | 2CCS803901R0639 | | 0,75 | 1 |

**Self-resetting short-circuit limiter World version**

| Description | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A | EAN | Type code | Order code | | kg | pc. |
| 32 | 412319 | S803W-SCL32-SR | 2CCS803917R0539 | | 0,75 | 1 |
| 63 | 412326 | S803W-SCL63-SR | 2CCS803917R0599 | | 0,75 | 1 |
| 100 | 412302 | S803W-SCL100-SR | 2CCS803917R0639 | | 0,75 | 1 |

**Self-resetting short-circuit limiter for S800HV**

| Description | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A | EAN | Type code | Order code | | kg | pc. |
| 32 | 437008 | S803HV-SCL32-SR | 2CCF019047R0001 | | 0.75 | 1 |
| 63 | 437107 | S803HV-SCL63-SR | 2CCF019048R0001 | | 0.75 | 1 |
| 100 | 437114 | S803HV-SCL100-SR | 2CCF019049R0001 | | 0.75 | 1 |

# Accessories for S800




S800-AUX






S800-AUX-ALT




S800-NT




S800-SOR




S800-UVR

**Auxiliary contact**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Auxiliary contact | 206802 | S800-AUX | 2CCS800900R0011 | | 0.049 | 1 |

**Combined auxiliary and signal contact**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Auxiliary/signal contact | 206819 | S800-AUX/ALT | 2CCS800900R0021 | | 0.050 | 1 |

**Separating neutral**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Separating neutral 63A | 208196 | S800-NT | 2CCS800900R0061 | | 0.115 | 1 |

**Shunt operation releases**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 2VAC/DC | 212070 | S800-SOR12 | 2CCS800900R0191 | | 0.15 | 1 |
| 24VAC/DC | 208318 | S800-SOR24 | 2CCS800900R0191 | | 0.15 | 1 |
| 48...130VAC/DC | 208349 | S800-SOR130 | 2CCS800900R0221 | | 0.15 | 1 |
| 110...250VAC/DC | 208332 | S800-SOR250 | 2CCS800900R0211 | | 0.15 | 1 |
| 220...400VAC/DC | 208356 | S800-SOR400 | 2CCS800900R0231 | | 0.15 | 1 |

**Under voltage releases**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 24...36VAC/DC | 208363 | S800-UVR36 | 2CCS800900R0241 | | 0.15 | 1 |
| 48...60VAC/DC | 208370 | S800-UVR60 | 2CCS800900R0251 | | 0.15 | 1 |
| 110...130VAC/DC | 208387 | S800-UVR130 | 2CCS800900R0261 | | 0.15 | 1 |
| 220...250VAC/DC | 208394 | S800-UVR250 | 2CCS800900R0271 | | 0.15 | 1 |


2CCC413061F0001

S800-RD


2CCC413062F0001

S800-RHE-H


2CCC413064F0001

S800-RHE-M



S800-RHE-S

**Rotary drive adapter for 3-4-pole High Performance MCB**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Rotary Drive | 208172 | S800-RD | 2CCS800900R0041 | | 0.080 | 1 |

**Anthracite/Standard rotary handle for door assembly**

| Description | Bbn 8015644 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Anthracite rotary handle | 625771 | S800-RHE-H | 1SDA060150R1 | | 0.21 | 1 |

**Red/Emergency rotary handle for door assembly**

| Description | Bbn 8015644 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Red rotary handle | 625764 | S800-RHE-EM | 1SDA060151R1 | | 0.21 | 1 |

**Axial extension of rotary drive – rotary handle 500mm**

| Description | Bbn 8015644 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Axial extension 500mm for RHE | 626242 | S800-RHE-S | 1SDA060179R1 | | 0.19 | 1 |

**IP54 protection for rotary handle**

| Description | Bbn 8015644 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| IP54 kit | 626259 | S800-RHE-IP54 | 1SDA060180R1 | | 0.075 | 1 |

# Accessories for
# MCBs S800 and RCD-blocks DDA 800 series




S800-IP9




S800-PLL




S800U-PLL




S800N-CT




S800-RT

**Intermediate piece**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Intermediate Piece 9mm | 208202 | S800-IP9 | 2CCS800900R0031 | | 0.011 | 1 |

**Padlock device**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Padlock Lever Lock with 4mm hasp | 208189 | S800-PLL | 2CCS800900R0051 | | 0.0015 | 1 |

**UL locking device**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| UL locking device | 215057 | S800U-PLL | 2CCS800017R0001 | | 0.03 | 2 |

**Interchangeable adapter kit**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Cage Terminal | 212049 | S800N-CT2125 | 2CCS800900R0181 | | 0.03 | 2 |
| Cage Terminal | 212032 | S800N-CT4125 | 2CCS800900R0151 | | 0.06 | 4 |

**Interchangeable adapter kit**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Ring Terminal cable connection | 208240 | S800-RT2125 | 2CCS800900R0161 | | 0.03 | 2 |
| Ring Terminal cable connection | 208219 | S800-RT4125 | 2CCS800900R0131 | | 0.06 | 4 |




S803-BB




S803-BBPC




S800-BBIC




S802-LINK50




S802-LINK120

**Busbar**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Busbar 250 A | 208288 | S803-BB250 | 2CCS800900R0071 | | 1.5 | 1 |

**Supply block**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Busbar Power Connector 120 mm² | 208301 | S803-BBPC120 | 2CCS800900R0101 | | 0.46 | 1 |

**Contact protection cap**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Busbar Isolation Cap | 208967 | S800-BBIC | 2CCS800900R0081 | | 0.02 | 12 |

**End cap**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| End cap | 208295 | S800-END | 2CCS800900R0091 | | 0.04 | 10 |

**S 800-ILS**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Identification Labeling System 1 68x6x11.5 mm | 208271 | S800-ILS | 2CCS800900R0121 | | 0.011 | 1 |

**Pole connectors**

| Description | Bbn 7612271 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Pole connector 50A | 211295 | S802-LINK50 | 2CCS800900R0411 | | 0,03 | 10 |
| Pole connector 125A | 419103 | S802-LINK125 | 2CCS800900R0562 | | 0,015 | 2 |

# Auxiliary elements for
# MCBs S500 and RCD-blocks DDA 800 series



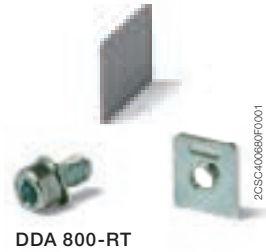

S500-H




S500-S




S500-RSU




DDA 800-RT

## Auxiliary elements and accessories for S500

**Auxiliary contact**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 NO and 1 NC contact | 0305506 | S500-H11 | 2CCF008681R0001 | | 0.06 | 1 |
| 2 NO contacts | 0305513 | S500-H20 | 2CCF008682R0001 | | 0.06 | 1 |

**Signal contact**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 NO and 1 NC contact | 0305537 | S500-S11 | 2CCF008684R0001 | | 0.06 | 1 |
| 2 NO contacts | 0305544 | S500-S20 | 2CCF008685R0001 | | 0.06 | 1 |

**Remote switch unit**

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Remote switch unit | 1407780 | S500-RSU-H | 2CCF017987R0001 | | 0.3 | 1 |

## Auxiliary elements and accessories for DDA 800 RCD-blocks

| Description | Bbn 7612271 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Ring tongue terminal kit | 987406 | DDA 800-RT | 2CSB100913R0001 | | 0.01 | 1/12 |

# Plug-in systems
# UNIFIX rapid wiring system



## UNIFIX – Rapid Wiring System

UNIFIX makes bench pre-cabling possible, with installation in the switchboard only carried out at a later time, without any limit to the types or combination of apparatus you may need to install…and this becomes even easier, thanks to the rigid coupled connectors, standardized for the different types of apparatus.
Unifix H allows modular and moulded-case circuit-breakers up to 250A to be mounted on an apparatus frame, which can be connected directly to the rear busbar system. This means many fewer conductors circulating inside the switchboard with considerable advantages in terms of space taken up, connections needed to be checked, and cabling times, with consequent cost savings.
Unifix L means traditional wire cabling on the supply side of the circuit-breakers can be replaced. It is thanks to the characteristics of its connections that cabling can be done rapidly and without any possibility of error, obtaining a more essential switchboard without conductors and cabling ducts around. Flexibility is its strong point: several independent circuits can be realized on the same DIN rail, and circuit-breakers of different types, with different polarity and characteristics can be mounted.

| Customer Benefits with UNIFIX |
|---|
| **Wiring Time**<br>The use of Unifix reduces considerably wiring time. |
| **Use of Standard Devices**<br>Unifix can be applied to all standard versions of ABB Sace modular devices, Tmax T1 - T2 - T3 - XT1 - XT3 moulded-case circuit breakers |
| **Flexible**<br>Unifix has variable modular capacity, it is possible to place both circuit-breakers with different polarities side by side on the same line and auxiliary elements. |
| **Reduce Space**<br>Space taken up by Unifix is extremely low |

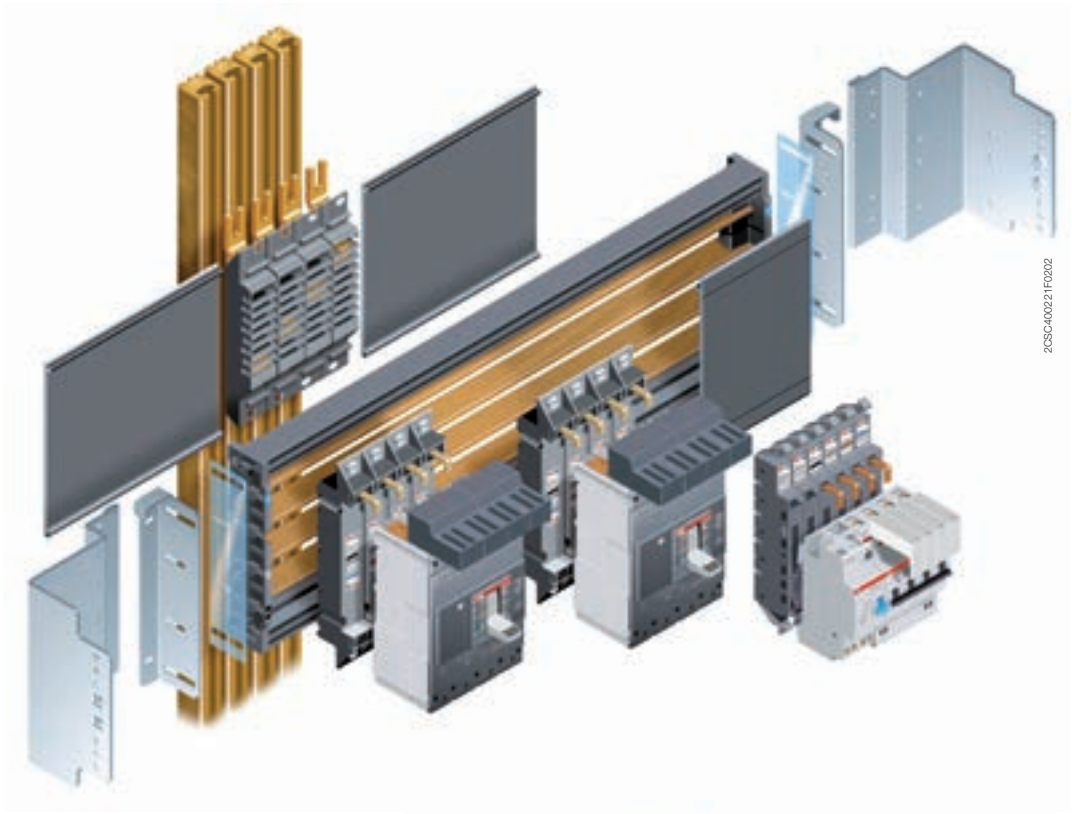
For order codes and technical details please check the Distribution Switchgear Catalogue 1STC008001D0203, pages 3/19-20, 4/18-19-20, 5/50-51-52



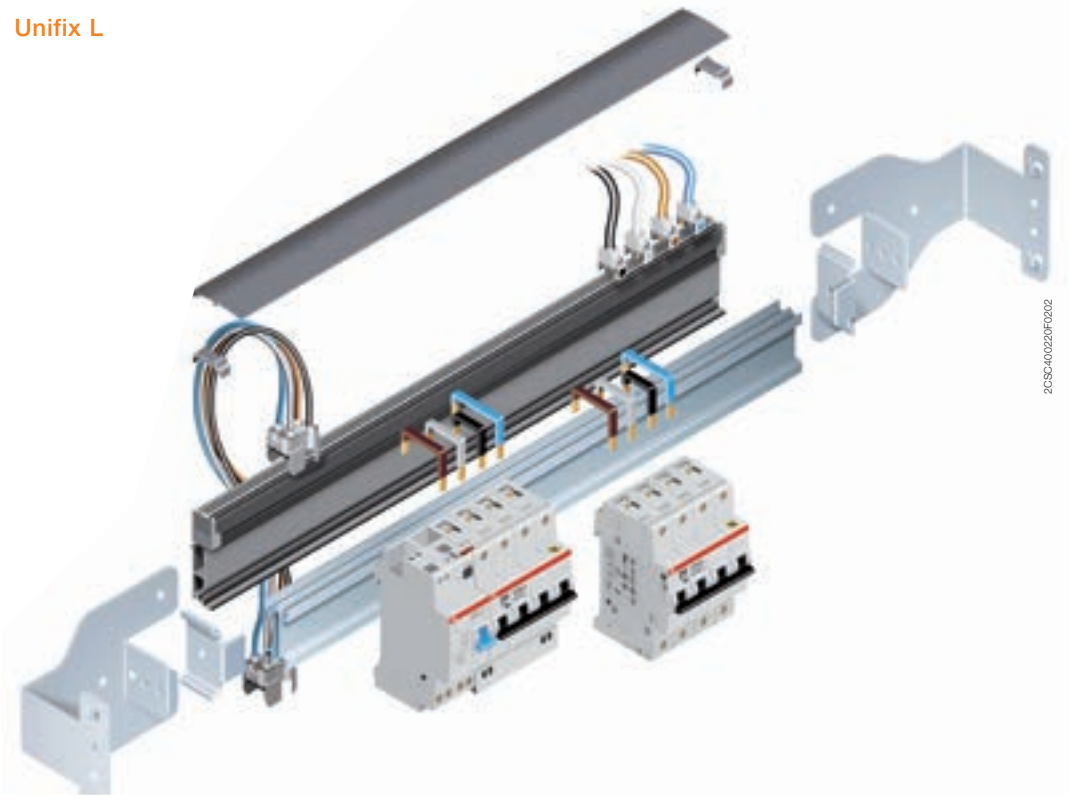
# Plug-in systems
## UNIFIX rapid wiring system



### Unifix H




### Unifix L



# Solutions for electrical distribution in buildings
## Protection and safety

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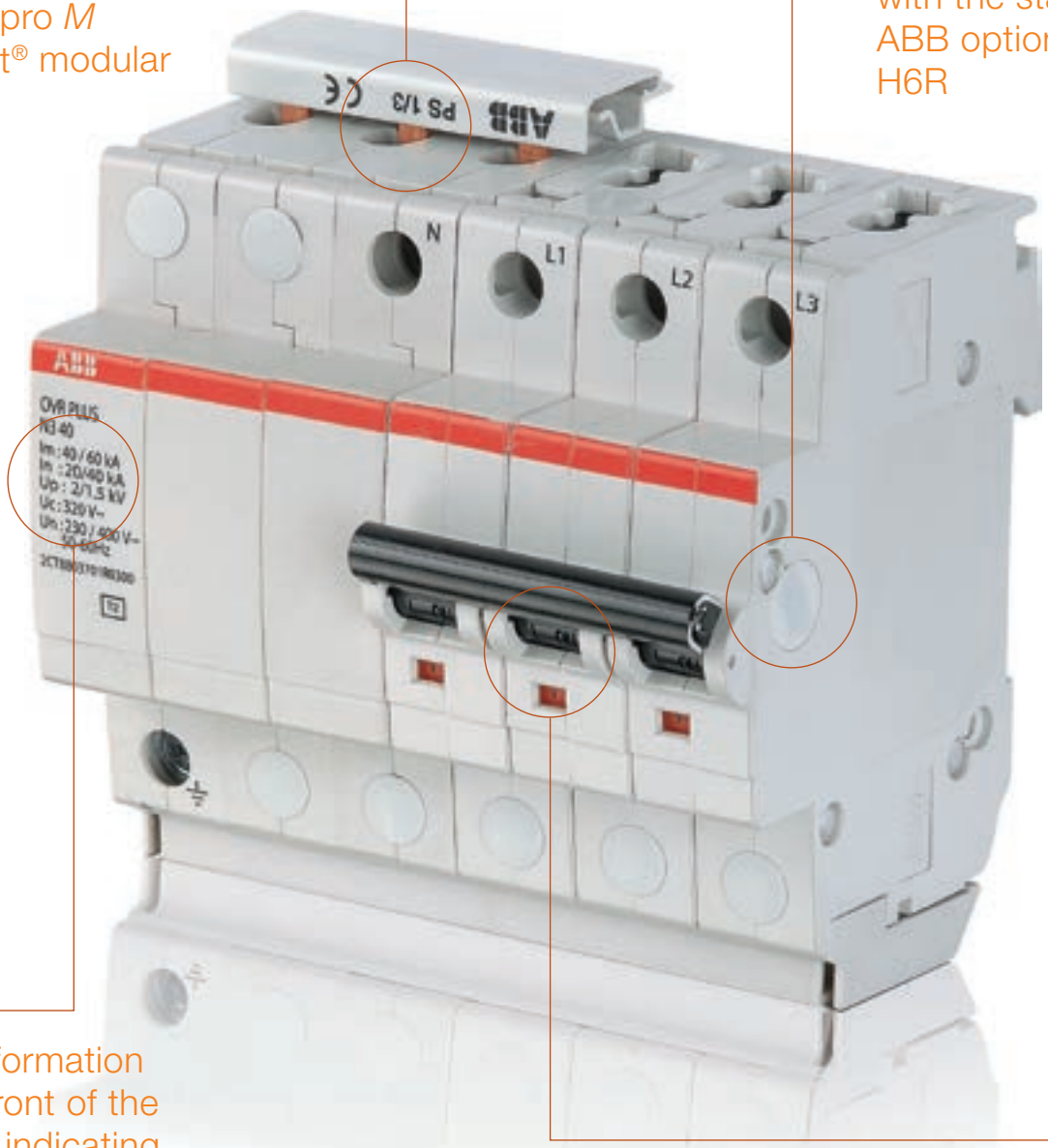

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# OVR Plus, OVR T1-T2, T2 and T2-T3 ranges. The details make the difference

## A complete range for your surge protection

Standard pro *M* terminals design for a better coordination with the complete ABB System pro *M* compact® modular range.

Possibility to add an auxiliary contact on the OVR Plus range with the standard ABB option S2C-H6R



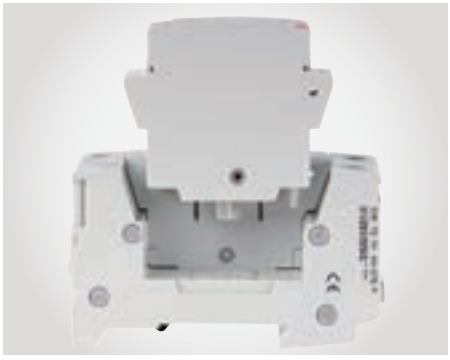

Clear information on the front of the product indicating the technical characteristics of the OVR.

The MCB toggle indicates the status of the OVR PLUS range.

Toggle on: OVR PLUS is active Toggle off: You can switch on again.
The OVR PLUS has proteted your installation and is still active
Toggle off: You cannot switch on again.
You have to change the OVR PLUS.



The bidirectional cylindrical terminal block of the **OVR Plus** range allows a complete coordination with the ABB range with considerable time savings in wiring operations. All the devices allow connection through busbars, both from above and from below.



The pluggable feature of ABB **OVR T1-T2, T2 and T2-T3** surge protective devices (SPDs) facilitates maintenance. Should one or more worn cartridges need to be replaced, the electrical circuit does not have to be isolated nor do the wires have to be removed.




The end-of-life indicator of the SPD signals the status of the device.
A mechanical indicator turns from green to red when the SPD reaches the end of its life, when the end-of-life indicator is fitted.





The toggle of the miniature circuit breaker indicates the status of the **OVR Plus** range.
If the toggle is on, the surge protection is active.
If the toggle is off and can be switched on again, the device has protected your equipment.
If the toggle is off and cannot be switched on. The device must be changed.



The configuration allows to use the **OVR Plus** range on TT and TNS network in Phase + Neutral and 3 Phases + Neutral with a high surge capacity up to 40kA Imax.

# Surge and lightning protection solutions
# Coordination and wiring principals

The SPD installed at the line entrance of an installation may not ensure an effective protection to the whole system. As a matter of fact, the selection of the voltage protection level ($\mathbf{U}_p$) of SPDs depends on many parameters: Type of equipment to be protected, the length of the connections to the SPDs, the length in between the SPDs and the equipment to be protected.

**Coordination required if :**
The protection level ($\mathbf{U}_p$) of the SPDs is not low enough to protect the equipment.
If the distance in between the SPDs and the equipment is >10 m.

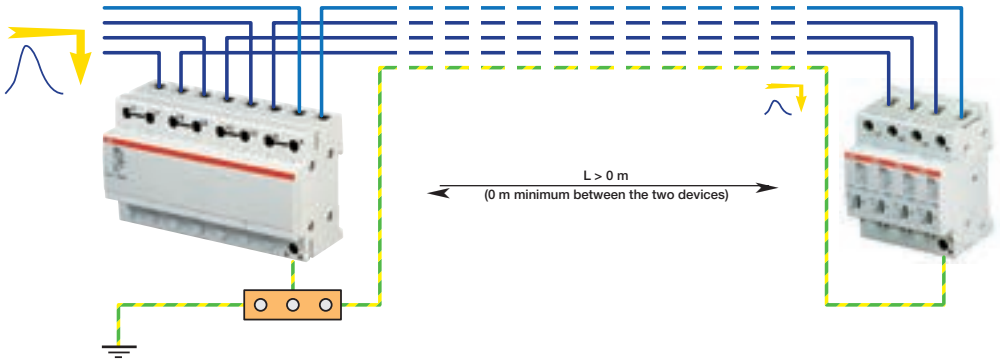
**NOTE:**
The first SPD is diverting most of the surge current to the ground, and the second SPD will ensure a good protection level to the equipment.

It is what we call the stepping protection.



## Coordination between Type 1, Type 1+2, Type 2 (with and without Safety System) and Type 2+3 surge protective device

**Type 1**
**25 kA (10/350) Ifi = 50 kA**




**Type 2**
**40 kA (8/20)**

**Type 2 s (safety system) QS**
**80 kA (8/20)**

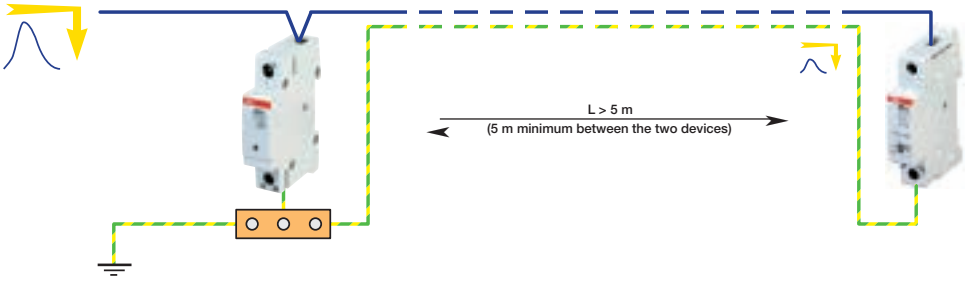
**Type 2+3 QS**
**20 kA (8/20)**

**Type 1**
**25 kA (10/350)**
**Ifi = 7 kA**

**Type 1+2**
**15kA (10/350)**
**Ifi=7kA**

**Type 1+2 s (Safety system) QS**
**12.5 kA (10/350**

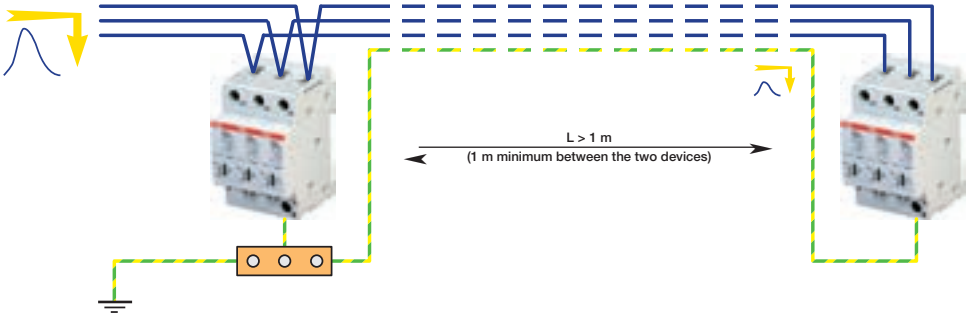
**Type 2 s (Safety System) QS**
**80 kA (8/20)**




**Type 2**
**40 kA (8/20)**

**Type 2+3 QS**
**20 kA (8/20)**

**Type 2 s (Safety System) QS**
**80 kA (8/20)**




**Type 2**
**40 kA (8/20)**

**Type 2+3 QS**
**20kA (8/20)**

| Type of Surge Protective Devices | Circuit breaker maximum ratings * curve B or C<br>Prospective short circuit current at SPD location (IP) | | | | Fuses maximum ratings* (gL - gG) |
|---|---|---|---|---|---|
| | Ip ≤ 6 kA | IP ≤ 10kA | IP ≤ 15kA | IP ≤ 50kA | |
| **Type 1** | | | | | |
| OVR T1 25kA non-pluggable<br>Iimp 25kA; Uc 275, 440V | | - | | - | 125 A fuse |
| OVR T1 15kA non-pluggable<br>Iimp 15 kA; Uc 275, 440V | | - | | - | 125 A fuse |
| **Type 1+2** | | | | | |
| OVR T1+2 non-pluggable<br>Iimp 25 kA/Ifi = 15kA; Uc 255 V | | - | | - | 125 A fuse |
| OVR T1+2 non-pluggable<br>Iimp 15 kA/Ifi = 7kA; Uc 255 V | | - | | - | 125 A fuse |
| OVR T1-T2 pluggable Safety Reserve QuickSafe®<br>Iimp 12.5kA; Uc 275, 440V | | - | | - | 160 A fuse |
| **Type 2** | | | | | |
| OVR T2 pluggable<br>Imax 15 kA; Uc 75 V | S 200 M - 16 | S 200 M - 16 | - | - | 16 A fuse |
| Type 2 pluggable<br>Imax 120 kA; Uc 440V | S 200 M - 50 | S 200 M - 50 | S 200 P - 50 | S 200 P - 50 | 50 A fuse |
| OVR T2 pluggable Safety Reserve QuickSafe®<br>Imax 80kA; Uc 275, 440V | S 200 M - 63 | S 200 M - 63 | S 200 P - 63 | S 800 S - 125 | 160 A fuse |
| Type 2 QuickSafe® pluggable<br>Imax 40 kA; Uc 275, 350, 440, 600V | S 200 M - 63 | S 200 M - 63 | S 200 P - 63 | S 800 S - 125 | 125 A fuse |
| OVR T2 non-pluggable<br>Imax 20 and 40 kA<br>Uc 150V, 275 and 440V | S 200 M - 63 | S 200 M - 63 | S 200 P - 63 | S 200 P - 63 | 125A fuse |
| **Type 3** | | | | | |
| OVR T2-T3 Safety QuickSafe®<br>Imax 20kA; Uc 275, 350, 440, 600V | S 200 M - 63 | S 200 M - 63 | S 200 P - 63 | S 800 S - 125 | 125 A fuse |
| OVR T3 non-pluggable<br>Imax 10 kA; Uc 275 V | S 200 M - 10 | S 200 M - 10 | - | - | 25 A fuse |

* Maximum ratings, must be in accordance with the installation to follow coordination rules with main or upstream short circuit protection(s).

| Service entrance SPDs | PE connection cable size |
|---|---|
| Type 1 | 16 mm² |
| Type 1+2 | 16 mm² |
| Type 2 | 4 mm² |
| Type 2+3 | 4 mm² |
| Type 3 | 4 mm² |

## Backup disconnection

| Type 2 QuickSafe® Characteristics | Prospective short circuit current at SPD location (Ip) | Circuit breaker* (curve B or C) | Fuses* (gL - gG) |
|---|---|---|---|
| **Maximum rating** | | | |
| In: 5, 20, 30 kA<br>Uc: 275, 350, 440, 600V | 0.625kA < Ip < 100kA | S800S B or C - 125A** | E90/125<br>125A fuse (without Safety Reserve System)<br>160A fuse (with Safety Reserve System) |

*: The backup disconnection of the SPD shall always be coordinated with the circuit breakers used in the installation.
**: up to Ip ≤ 50kA

# Protection and safety
## OVR surge protective devices selection tables

| Protected lines | Impulse current<br>limp 10/350<br>kA | Max. discharge current<br>Imax<br>8/20<br>kA | Nominal current<br>In<br>kA | Follow current interrupting rating<br>Ifi<br>kA | Voltage protection level<br>Up<br>kV | Nominal voltage<br>Un<br>V | Max. cont. operating voltage<br>Uc<br>V | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| **Type 1 OVR non-pluggable** | | | | | | | | | |
| **limp 25 kA** | | | | | | | | | |
| 1 | 25 | 60 | 25 | 50 | 2.5 | 400/690 | 440 | OVR T1 25-440-50 | 2CTB815101R9300 |
| 1 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 25-255 | 2CTB815101R0100 |
| 2 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 2L 25-255 | 2CTB815101R1200 |
| 2 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 2L 25-255 TS | 2CTB815101R1100 |
| 3 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 3L 25-255 | 2CTB815101R1300 |
| 3 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 3L 25-255 TS | 2CTB815101R0600 |
| 4 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 4L 25-255 | 2CTB815101R1400 |
| 4 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 4L 25-255 TS | 2CTB815101R0800 |
| 1+1 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 1N 25-255 | 2CTB815101R1500 |
| 1+1 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 1N 25-255 TS | 2CTB815101R1000 |
| 3+1 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 3N 25-255 | 2CTB815101R1600 |
| 3+1 | 25 | 60 | 25 | 50 | 2.5 | 230/400 | 255 | OVR T1 3N 25-255 TS | 2CTB815101R0700 |
| 1 | 25 | 60 | 25 | 7 | 2.5 | 230/400 | 255 | OVR T1 25-255-7 | 2CTB815101R8700 |
| 3+1 | 25 | 60 | 25 | 7 | 2.5 | 230/400 | 255 | OVR T1 3N 25-255-7 | 2CTB815101R8800 |
| **Neutral** | | | | | | | | | |
| 1 | 25 | 60 | 25 | 0.1 | 4 | 400/690 | 690 | OVR T1 25 N | 2CTB815101R9700 |
| 1 | 50 | 100 | 50 | 0.1 | 1.5 | 230/400 | 255 | OVR T1 50 N | 2CTB815101R0400 |
| 1 | 100 | 100 | 25 | 0.1 | 2 | 230/400 | 255 | OVR T1 100 N | 2CTB815101R0500 |
| **Type T1-T2 OVR pluggable and non-pluggable** | | | | | | | | | |
| **limp 25 ,15 and 12.5 kA** | | | | | | | | | |
| 1 | 25 | 60 | 25 | - | 15 | 1.5 | 255 | OVR T1+2 25-255 TS | 2CTB815101R0300 |
| 1 | 25 | 60 | 25 | - | 15 | 1.5 | 255 | OVR T1+2 1N 25-255 TS | 2CTB815101R4400 |
| 1 | 25 | 60 | 25 | - | 15 | 1.5 | 255 | OVR T1+2 3L 25-255 TS | 2CTB815101R4300 |
| 1 | 25 | 60 | 25 | - | 15 | 1.5 | 255 | OVR T1+2 3N 25-255 TS | 2CTB815101R4500 |
| 1 | 25 | 60 | 25 | - | 15 | 1.5 | 255 | OVR T1+2 4L 25-255 TS | 2CTB815101R4200 |
| 1 | 15 | 60 | 15 | - | 7 | 1.7 | 255 | OVR T1+2 15-255-7 | 2CTB815101R8900 |
| 3+1 | 15 | 60 | 15 | - | 7 | 1.5 | 255 | OVR 3N T1+2 15-255-7 | 2CTB815101R9000 |
| 1 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 12.5-275s P TS QS (*) | 2CTB815710R0000 |
| 1+1 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 1N 12.5-275s P TS QS (*) | 2CTB815710R0100 |
| 3 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 3L 12.5-275s P TS QS (*) | 2CTB815710R0600 |
| 3+1 | 12.5 | 80 | 20 | - | 1,3 | 230/400 | 275 | OVR T1-T2 3N 12.5-275s P TS QS (*) | 2CTB815710R0700 |
| 4 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 4L 12.5-275s P TS QS (*) | 2CTB815710R1100 |
| 1 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 12.5-275s P QS (*) | 2CTB815710R1200 |
| 1+1 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 1N 12.5-275s P QS (*) | 2CTB815710R1300 |
| 3 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 3L 12.5-275s P QS (*) | 2CTB815710R1800 |
| 3+1 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 3N 12.5-275s P QS (*) | 2CTB815710R1900 |
| 4 | 12.5 | 80 | 20 | - | 1,3 | 230 /400 | 275 | OVR T1-T2 4L 12.5-275s P QS (*) | 2CTB815710R2300 |
| 1 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 12.5-440s P TS QS (*) | 2CTB815710R2900 |
| 1+1 | 12.5 | 80 | 20 | - | 1,6 | 400 /690 | 440 | OVR T1-T2 1N 12.5-440s P TS QS (*) | 2CTB815710R3000 |
| 3 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 3L 12.5-440s P TS QS (*) | 2CTB815710R3500 |
| 3+1 | 12.5 | 80 | 20 | - | 1,6 | 400 /690 | 440 | OVR T1-T2 3N 12.5-440s P TS QS (*) | 2CTB815710R3600 |
| 4 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 4L 12.5-440s P TS QS (*) | 2CTB815710R4000 |
| 1 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 12.5-440s P QS (*) | 2CTB815710R4100 |
| 1+1 | 12.5 | 80 | 20 | - | 1,6 | 400 /690 | 440 | OVR T1-T2 1N 12.5-440s P QS (*) | 2CTB815710R4200 |
| 3 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 3L 12.5-440s P QS (*) | 2CTB815710R4700 |
| 3+1 | 12.5 | 80 | 20 | - | 1,6 | 400 /690 | 440 | OVR T1-T2 3N 12.5-440s P QS (*) | 2CTB815710R4800 |
| 4 | 12.5 | 80 | 20 | - | 1,3 | 400 /690 | 440 | OVR T1-T2 4L 12.5-440s P QS (*) | 2CTB815710R5200 |
| **Neutral** | | | | | | | | | |
| 1 | 50 | 80 | 30 | - | 1,3 | 230 | 275 | OVR T1-T2 N 50-275s P QS (*) | 2CTB815710R5300 |
| 1 | 50 | 80 | 30 | - | 1 | 400 | 440 | OVR T1-T2 N 50-440s P QS (*) | 2CTB815710R5300 |
| **Cartridges** | | | | | | | | | |
| 1 | 12.5 | 80 | 20 | - | 1,1 | 230 /400 | 275 | OVR T1-T2 12.5-275s C QS (*) | 2CTB815710R2600 |
| 1 | 12.5 | 80 | 20 | - | 1,6 | 400 /690 | 440 | OVR T1-T2 12.5-440s C QS (*) | 2CTB815710R5500 |
| 1 | 50 | 80 | 30 | - | 1 | 230 | 275 | OVR T1-T2 N 50-275s C QS (*) | 2CTB815710R2700 |
| 1 | 50 | 80 | 30 | - | 1 | 400 | 440 | OVR T1-T2 N 80-275s C QS (*) | 2CTB815710R5600 |

| Protected lines | Impulse current | Max. discharge current | Nominal current | Follow current interrupting rating | Voltage protection level | Nominal voltage | Max. cont. operating voltage | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| | limp 10/350 | Imax 8/20 | In | Ifi | Up | Un | Uc | | |
| | kA | kA | kA | kA | kV | V | V | | |
| **Type 2 OVR non-pluggable** | | | | | | | | | |
| 1 | – | 20 | 5 | – | 1.0 | 120/240 | 150 | OVR T2 20-150 | 2CTB804200R0700 |
| 1 | – | 40 | 20 | – | 1.4 | 120/240 | 150 | OVR T2 40-150 | 2CTB804201R0700 |
| 1 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 20-275 | 2CTB804200R0100 |
| 1 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 40-275 | 2CTB804201R0100 |
| 3 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 3L 20-275 | 2CTB804600R0400 |
| 3 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 3L 40-275 | 2CTB804601R0400 |
| 4 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 4L 20-275 | 2CTB804600R0500 |
| 4 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 4L 40-275 | 2CTB804601R0500 |
| 1 | – | 20 | 5 | – | 1.3 | 230/400 | 440 | OVR T2 20-440 | 2CTB804200R0200 |
| 1 | – | 40 | 20 | – | 1.9 | 230/400 | 440 | OVR T2 40-440 | 2CTB804201R0200 |
| 1 | – | 20 | 5 | – | 1.0 | 120/240 | 150 | OVR T2 20-150 (x20) | 2CTB804200R1700 |
| 1 | – | 40 | 20 | – | 1.4 | 120/240 | 150 | OVR T2 40-150 (x20) | 2CTB804201R1700 |
| 1 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 20-275 (x20) | 2CTB804200R1100 |
| 1 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 40-275 (x20) | 2CTB804201R1100 |
| 3 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 3L 20-275 (x6) | 2CTB804600R1400 |
| 3 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 3L 40-275 (x6) | 2CTB804601R1400 |
| 4 | – | 20 | 5 | – | 1.0 | 230/400 | 275 | OVR T2 4L 20-275 (x5) | 2CTB804600R1500 |
| 4 | – | 40 | 20 | – | 1.4 | 230/400 | 275 | OVR T2 4L 40-275 (x5) | 2CTB804601R1500 |
| 1 | – | 20 | 5 | – | 1.3 | 230/400 | 440 | OVR T2 20-440 (x20) | 2CTB804200R1200 |
| 1 | – | 40 | 20 | – | 1.9 | 230/400 | 440 | OVR T2 40-440 (x20) | 2CTB804201R1200 |
| **Type 2 OVR pluggable** | | | | | | | | | |
| **Uc 275V** | | | | | | | | | |
| 1 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 40-275 P TS QS | 2CTB803871R1700 |
| 1+1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 1N 40-275 P TS QS | 2CTB803972R0500 |
| 3 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 3L 40-275 P TS QS | 2CTB803873R2500 |
| 4 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 4L 40-275 P TS QS | 2CTB803873R5200 |
| 1 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 40-275 P QS | 2CTB803871R2300 |
| 1+1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 1N 40-275 P QS | 2CTB803972R1100 |
| 3 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 3L 40-275 P QS | 2CTB803873R2400 |
| 4 | 2 | 40 | 20 | | 1.25 | 230 /400 | 275 | OVR T2 4L 40-275 P QS | 2CTB803873R5600 |
| 1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 40-275s P TS QS (*) | 2CTB815704R0000 |
| 1+1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 1N 40-275s P TS QS (*) | 2CTB815704R0200 |
| 3 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 3L 40-275s P TS QS (*) | 2CTB815704R0600 |
| 4 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 4L 40-275s P TS QS (*) | 2CTB815704R1100 |
| 1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 40-275s P QS (*) | 2CTB815704R1200 |
| 1+1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 1N 40-275s P QS (*) | 2CTB815704R1400 |
| 3 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 3L 40-275s P QS (*) | 2CTB815704R1800 |
| 4 | 2 | 40 | 20 | | 1.5 | 230 /400 | 275 | OVR T2 4L 40-275s P QS (*) | 2CTB815704R2300 |
| 1 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 80-275s P TS QS (*) | 2CTB815708R0000 |
| 1+1 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 1N 80-275s P TS QS (*) | 2CTB815708R0200 |
| 3 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 3L 80-275s P TS QS (*) | 2CTB815708R0600 |
| 4 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 4L 80-275s P TS QS (*) | 2CTB815708R1100 |
| 1 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 80-275s P QS (*) | 2CTB815708R1200 |
| 1+1 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 255 | OVR T2 1N 80-275s P QS (*) | 2CTB815708R1400 |
| 3 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 3L 80-275s P QS (*) | 2CTB815708R1800 |
| 4 | 6.25 | 80 | 20 | | 1,8 | 230 /400 | 275 | OVR T2 4L 80-275s P QS (*) | 2CTB815708R2300 |
| **Neutral** | | | | | | | | | |
| 1 | 14 | 80 | 30 | - | 1,4 | 230/400 | 275 | OVR T2 N 80-275 P QS | 2CTB803973R1900 |
| 1 | 14 | 80 | 30 | - | 1,4 | 230/400 | 275 | OVR T2 N 80-275s P QS(*) | 2CTB815708R2500 |
| **Cartridges** | | | | | | | | | |
| 1 | 14 | 80 | 20 | | 1,4 | 230 /400 | 275 | OVR T2 N 80-275 C QS (*) | 2CTB803876R0000 |
| 1 | 2 | 40 | 20 | | 1,25 | 230 /400 | 275 | OVR T2 40-275 C QS | 2CTB803876R1000 |
| 1 | 6,25 | 40 | 20 | | 1,5 | 230/400 | 275 | OVR T2 40-275s C QS (*) | 2CTB815704R2600 |
| 1 | 6,25 | 80 | 20 | | 1,8 | 230/400 | 275 | OVR T2 80-275s C QS (*) | 2CTB815708R2600 |
| 1 | 14 | 80 | 20 | | 1,8 | 230/400 | 275 | OVR T2 N 80-275s C QS (*) | 2CTB815708R2800 |

# Protection and safety
## OVR surge protective devices selection tables

| Protected lines | Impulse current<br>Iimp 10/350<br>kA | Max. discharge current<br>Imax<br>8/20<br>kA | Nominal current<br>In<br>kA | Follow current interrupting rating<br>Ifi<br>kA | Voltage protection level<br>Up<br>kV | Nominal voltage<br>Un<br>V | Max. cont. operating voltage<br>Uc<br>V | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| **Uc 350V** | | | | | | | | | |
| 1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 350 | OVR T2 40-350 P TS QS | 2CTB803881R1700 |
| 2 | 2 | 40 | 20 | | 1.7 | 230 /400 | 350 | OVR T2 1N 40-350 P QS | 2CTB803982R1100 |
| 2 | 2 | 40 | 20 | | 1.7 | 230 /400 | 350 | OVR T2 1N 40-350 P TS QS | 2CTB803982R0500 |
| 3 | 2 | 40 | 20 | | 1.5 | 230 /400 | 350 | OVR T2 3L 40-350 P QS | 2CTB803883R2400 |
| 3 | 2 | 40 | 20 | | 1.5 | 230 /400 | 350 | OVR T2 3L 40-350 P TS QS | 2CTB803883R2500 |
| 4 | 2 | 40 | 20 | | 1.7 | 230 /400 | 350 | OVR T2 3N 40-350 P QS | 2CTB803983R1100 |
| 4 | 2 | 40 | 20 | | 1.7 | 230 /400 | 350 | OVR T2 3N 40-350 P TS QS | 2CTB803983R0500 |
| **Neutral** | | | | | | | | | |
| 1 | 2 | 80 | 30 | | 1.4 | 230 /400 | 350 | OVR T2 N 80-350 P QS | 2CTB803983R1900 |
| **Cartridges** | | | | | | | | | |
| 1 | 2 | 80 | 30 | | 1.4 | 230 /400 | 255 | OVR T2 N 80-350 C QS | 2CTB803886R0000 |
| 1 | 2 | 40 | 20 | | 1.5 | 230 /400 | 350 | OVR T2 40-350 C QS | 2CTB803886R1000 |
| **Uc 440V** | | | | | | | | | |
| 1 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 40-440 P QS | 2CTB803871R1200 |
| 1 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 40-440 P TS QS | 2CTB803871R0500 |
| 3 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 3L 40-440 P TS QS | 2CTB803873R2700 |
| 4 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 4L 40-440 P QS | 2CTB803873R5100 |
| 4 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 4L 40-440 P TS QS | 2CTB803873R5300 |
| 4 | 2 | 40 | 20 | | 2.1 | 400 /690 | 440 | OVR T2 3N 40-440 P QS | 2CTB803973R1400 |
| 4 | 2 | 40 | 20 | | 2.1 | 400 /690 | 440 | OVR T2 3N 40-440 P TS QS | 2CTB803973R1500 |
| 3 | 2 | 40 | 20 | | 1.8 | 400 /690 | 440 | OVR T2 3L 40-440 P QS | 2CTB803873R2800 |
| 1 | 2 | 40 | 20 | | 2.0 | 400 /690 | 440 | OVR T2 40-440s P TS QS (*) | 2CTB815704R2900 |
| 3+1 | 2 | 40 | 20 | | 2.0 | 400 /690 | 440 | OVR T2 3N 40-440s P TS QS (*) | 2CTB815704R3700 |
| 1 | 2 | 40 | 20 | | 2.0 | 400 /690 | 440 | OVR T2 40-440s P QS (*) | 2CTB815704R4100 |
| 1 | 6.25 | 80 | 30 | | 2,4 | 400 /690 | 440 | OVR T2 80-440s P TS QS (*) | 2CTB815708R2900 |
| 3 | 6.25 | 80 | 30 | | 2,4 | 400 /690 | 440 | OVR T2 3L 80-440s P TS QS (*) | 2CTB815708R3500 |
| 3+1 | 6.25 | 80 | 30 | | 2,4 | 400 /690 | 440 | OVR T2 3N 80-440s P TS QS (*) | 2CTB815708R3700 |
| 4 | 6.25 | 80 | 30 | | 2,4 | 400 /690 | 440 | OVR T2 4L 80-440s P TS QS (*) | 2CTB815708R4000 |
| 1 | 6.25 | 80 | 30 | | 2,4 | 400 /690 | 440 | OVR T2 80-440s P QS (*) | 2CTB815708R4100 |
| 3 | 6.25 | 80 | 20 | | 2,4 | 400 /690 | 440 | OVR T2 3L 80-440s P QS (*) | 2CTB815708R4700 |
| 3+1 | 6.25 | 80 | 20 | | 2,4 | 400 /690 | 440 | OVR T2 3N 80-440s P QS (*) | 2CTB815708R4900 |
| 4 | 6.25 | 80 | 20 | | 2,4 | 400 /690 | 440 | OVR T2 4L 80-440s P QS (*) | 2CTB815708R5200 |
| **Neutral** | | | | | | | | | |
| 1 | 2 | 80 | 30 | | 1 | 400 | 440 | OVR T2 N 80-440s P QS(*) | 2CTB815708R5400 |
| 1 | 6.25 | 80 | 30 | | 1,4 | 400 /690 | 440 | OVR T2 N 80-440 P QS (*) | 2CTB803973R2000 |
| **Cartridges** | | | | | | | | | |
| 1 | 2 | 80 | 40 | | 2.4 | 400 /690 | 440 | OVR T2 40-440 C QS | 2CTB803876R0400 |
| 1 | 6.25 | 80 | 30 | | 1.4 | 400 /690 | 440 | OVR T2 N 80-440 C QS | 2CTB803886R0100 |
| 1 | 2 | 40 | 20 | | 1.5 | 400/690 | 440 | OVR T2 40-440s C QS (*) | 2CTB815704R5500 |
| 1 | 6.25 | 80 | 20 | | 1,8 | 400/690 | 440 | OVR T2 80-440s C QS (*) | 2CTB815708R5500 |
| 1 | 6.25 | 80 | 30 | | 1.8 | 400/690 | 440 | OVR T2 N 80-440 C QS | 2CTB803886R0100 |
| 1 | 6.25 | 80 | 30 | | 1 | 400/690 | 440 | OVR T2 N 80-440s C QS (*) | 2CTB815708R5700 |
| **Uc 600V** | | | | | | | | | |
| 1 | 2 | 40 | 20 | | 2.3 | 400 /690 | 600 | OVR T2 40-600 P QS | 2CTB803881R1200 |
| 1 | 2 | 40 | 20 | | 2.3 | 400 /690 | 600 | OVR T2 40-600 P TS QS | 2CTB803881R0500 |
| 3 | 2 | 40 | 20 | | 2.3 | 400 /690 | 600 | OVR T2 3L 40-600 P TS QS | 2CTB803883R2700 |
| 4 | 2 | 40 | 20 | | 2.3 | 400 /690 | 600 | OVR T2 4L 40-600 P TS QS | 2CTB803883R5300 |
| **Uc 760V** | | | | | | | | | |
| 3 | | 40 | 20 | | 2.9 | 400 /690 | 760 | OVR T2 3L 40 400 P | 2CTB803853R4500 |
| 3 | | 40 | 20 | | 2.9 | 400 /690 | 760 | OVR T2 3L 40 400 P TS | 2CTB803853R4600 |
| **Cartridges** | | | | | | | | | |
| 1 | | 40 | 20 | | 2.9 | 400 /690 | 760 | OVR T2 40-400 C | 2CTB803854R1100 |

| Protected lines | Impulse current<br>limp 10/350<br>kA | Max. discharge current<br>Imax<br>8/20<br>kA | Nominal current<br>In<br>kA | Follow current interrupting rating<br>Ifi<br>kA | Voltage protection level<br>Up<br>kV | Nominal voltage<br>Un<br>V | Max. cont. operating voltage<br>Uc<br>V | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| **Type T2-T3 OVR Pluggable** | | | | | | | | | |
| **Uc 275V** | | | | | | | | | |
| 1 | 2 | 20 | 5 | | 0.9 | 230 /400 | 275 | OVR T2-T3 20-275 P QS | 2CTB803871R2400 |
| 1 | 2 | 20 | 5 | | 0.9 | 230 /400 | 275 | OVR T2-T3 20-275 P TS QS | 2CTB803871R2500 |
| 1+1 | 2 | 20 | 5 | | 1.4 | 230 /400 | 275 | OVR T2-T3 1N 20-275 P QS | 2CTB803972R1200 |
| 1+1 | 2 | 20 | 5 | | 1.4 | 230 /400 | 275 | OVR T2-T3 1N 20-275 P TS QS | 2CTB803972R1300 |
| 3 | 2 | 20 | 5 | | 0.85 | 230 /400 | 275 | OVR T2-T3 3L 20-275 P QS | 2CTB803873R3400 |
| 3 | 2 | 20 | 5 | | 0.85 | 230 /400 | 275 | OVR T2-T3 3L 20-275 P TS QS | 2CTB803873R3500 |
| 3+1 | 2 | 20 | 5 | | 1.4 | 230 /400 | 275 | OVR T2-T3 3N 20-275 P QS | 2CTB803973R1200 |
| 3+1 | 2 | 20 | 5 | | 1.4 | 230 /400 | 275 | OVR T2-T3 3N 20-275 P TS QS | 2CTB803973R1600 |
| 3+1 | 2 | 20 | 5 | | 1,4 | 400/690 | 440 | OVR T2-T3 20-440 P QS | 2CTB803871R1100 |
| 3+1 | 2 | 20 | 5 | | 1,4 | 400/690 | 440 | OVR T2-T3 20-440 P TS QS | 2CTB803871R1300 |
| **Neutral** | | | | | | | | | |
| 1 | | 80 | 30 | | 1.4 | 230 /400 | 275 | OVR T2 N 80-275 P QS | 2CTB803973R1900 |
| **Cartridges** | | | | | | | | | |
| 1 | | 20 | 5 | | 0.9 | 230 /400 | 275 | OVR T2 20-275 C QS | 2CTB803876R1200 |
| 1 | | 80 | 30 | | 1.4 | 230 /400 | 275 | OVR T2 N 80-275 C QS | 2CTB803876R0000 |
| **Uc 440V** | | | | | | | | | |
| 3+1 | 2 | 20 | 5 | | 1.4 | 400 /690 | 440 | OVR T2-T3 20-440 P QS | 2CTB803871R1100 |
| 3+1 | 2 | 20 | 5 | | 1.4 | 400 /690 | 440 | OVR T2-T3 20-440 P TS QS | 2CTB803871R1300 |
| 4 | | 20 | 5 | | 1.5 | 400 /690 | 440 | OVR T2-T3 3N 20-440 P QS | 2CTB803973R1300 |
| **Neutral** | | | | | | | | | |
| 1 | | 80 | 30 | | 1.4 | 400 /690 | 440 | OVR T2 N 80-440 P QS | 2CTB803973R2000 |
| **Cartridges** | | | | | | | | | |
| 1 | | 20 | 5 | | 1.4 | 400 /690 | 440 | OVR T2 20-440 C QS | 2CTB803876R0600 |
| 1 | | 80 | 30 | | 1.4 | 400 /690 | 440 | OVR T2 N 80-440 C QS | 2CTB803886R0100 |
| **OVR T3 OVR non-pluggable** | | | | | | | | | |
| **Combination wave Uoc 6 kV** | | | | | | | | | |
| 1+1 | – | 10 | 3 | – | 0.9 | 230/400 | 275 | OVR 1N 10 275 | 2CTB813912R1000 |
| 3+1 | – | 10 | 3 | – | 0.9 | 230/400 | 275 | OVR 3N 10 275 | 2CTB813913R1000 |
| **Type T2-T3 OVR non-pluggable Street Light** | | | | | | | | | |

# Protection and safety
## OVR surge protective devices selection tables

| Protected lines | Impulse current<br>Iimp 10/350<br>kA | Max. discharge current<br>Imax<br>8/20<br>kA | Nominal current<br>In<br>kA | Follow current interrupting rating<br>Ifi<br>kA | Voltage protection level<br>Up<br>kV | Nominal voltage<br>Un<br>V | Max. cont. operating voltage<br>Uc<br>V | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| 1+1 | | 15 | 5 | | - | 230/400 | 275 | OVR T2-T3 N1 15-275s SL | 2CTB804500R0200 |
| 1+1 | | 15 | 5 | | - | 230/400 | 275 | OVR T2-T3 N1 15-275s SL (x20) | 2CTB804500Z1200 |
| **Type T2 OVR autoprotected non-pluggable** | | | | | | | | | |
| 1+1 | – | 20 | 5 | – | 1.3 | 230/400 | 275 | OVR PLUS N1 20 | 2CTB803701R0700 |
| 1+1 | – | 40 | 20 | – | 1.8 | 230/400 | 320 | OVR PLUS N1 40 | 2CTB803701R0100 |
| 3+1 | – | 20 | 5 | – | 1.3 | 230/400 | 320 | OVR PLUS N3 20 | 2CTB803701R0400 |
| 3+1 | – | 40 | 20 | – | 2.0 | 230/400 | 320 | OVR PLUS N3 40 | 2CTB803701R0300 |
| **Type 1 OVR pluggable PV applications** | | | | | | | | | |
| **Uc 600VDC** | | | | | | | | | |
| 1+1 DC | 6,25 | - | 6,25 | 100 | 1,9 | 600 | 600 | OVR PV T1 6.25-600 P TS | 2CTB803953R5700 |
| **Cartridges** | | | | | | | | | |
| 1+1 DC | 6,25 | - | 6,25 | 100 | 1,9 | 600 | 600 | OVR PV T1 6.25-600 C | 2CTB803950R1000 |
| **Uc 1000VDC** | | | | | | | | | |
| 1+1 DC | 6,25 | - | 6,25 | 100 | 2,5 | 1000 | 1000 | OVR PV T1 6.25-1000 P TS | 2CTB803953R6700 |
| **Cartridges** | | | | | | | | | |
| 1+1 DC | 6,25 | - | 6,25 | 100 | 2,5 | 1000 | 1000 | OVR PV T1 6.25-1000 C | 2CTB803950R1100 |
| **Type 2 OVR pluggable PV applications** | | | | | | | | | |
| **Uc 670VDC** | | | | | | | | | |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 2.8/1.4 | 600 | 600 | OVR PV T2 40-600 P QS | 2CTB804153R2800 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 2.8/1.4 | 600 | 600 | OVR PV T2 40-600 P TS QS | 2CTB804153R2900 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 2.8/1.4 | 600 | 600 | OVR PV T2 40-600 P QS BULK (30) | 2CTB804153Z2800 |
| 1+1 DC | 2 | 40 | 20 | | 2.8/1.4 | 600 | 600 | OVR PV T2 40-600 P TS QS BULK (30) | 2CTB804153Z2900 |
| **Cartridges** | | | | | | | | | |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 2.8/1.4 | 600 | 600 | OVR PV T2 40-600 C QS | 2CTB804153R3100 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 2.8/1.4 | 600 | 600 | OVR PV MC C QS | 2CTB804153R3500 |
| **Uc 1100VDC** | | | | | | | | | |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P QS | 2CTB804153R2400 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P TS QS | 2CTB804153R2500 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P QS BULK (30) | 2CTB804153Z2400 |
| 1+1 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P TS QS BULK (30) | 2CTB804153Z2500 |
| 2+2 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P TWIN QS | 2CTB804153R3000 |
| 2+2 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P TS TWIN QS | 2CTB804153R2300 |
| 2+2 DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 P TS TWIN QS BULK (18) | 2CTB804153Z2300 |
| **Cartridges** | | | | | | | | | |
| 1+1 DC or 2+2DC | 2 | 40 | 20 | 10.000 | 3,8 | 1000 | 1100 | OVR PV T2 40-1000 C QS | 2CTB804153R3200 |
| **Uc 1500 VDC** | | | | | | | | | |
| 1+1 DC | 2 | 40 | 10 | 10.000 | 4,5 | 1500 | 1500 | OVR PV T2 40-1500 P QS | 2CTB804153R2600 |
| 1+1 DC | 2 | 40 | 10 | 10.000 | 4,5 | 1500 | 1500 | OVR PV T2 40-1500 P TS QS | 2CTB804153R2700 |
| 1+1 DC | 2 | 40 | 10 | 10.000 | 4,5 | 1500 | 1500 | OVR PV T2 40-1500 P QS BULK (30) | 2CTB804153Z2600 |
| 1+1 DC | 2 | 40 | 10 | 10.000 | 4,5 | 1500 | 1500 | OVR PV T2 40-1500 P TS QS BULK (30) | 2CTB804153Z2700 |
| **Cartridges** | | | | | | | | | |
| 1+1 DC | 2 | 40 | 10 | 10.000 | 4,5 | 1500 | 1500 | OVR PV T2 40-1500 C QS | 2CTB804153R3300 |

| Protected lines | Impulse current<br>limp 10/350<br>kA | Max. discharge current<br>Imax<br>8/20<br>kA | Nominal current<br>In<br>kA | Follow current interrupting rating<br>Ifi<br>kA | Voltage protection level<br>Up<br>kV | Nominal voltage<br>Un<br>V | Max. cont. operating voltage<br>Uc<br>V | Type | Order code |
|---|---|---|---|---|---|---|---|---|---|
| **Type T1+T2 OVR pluggable WT Applications** | | | | | | | | | |
| **Uc 1260/2520** | | | | | | | | | |
| 3 | 2 | 40 | 20 | | - | 6 | 1260/2520 | OVR WT 3L 690 P TS | 2CTB235402R0000 |
| **Cartridges** | | | | | | | | | |
| 1 | 2 | 40 | 20 | | - | 6 | 440 | OVR T2 40 440 C | 2CTB803854R0400 |
| **Type C2 DATA OVR Pluggable TC** | | | | | | | | | |
| **Uc 7VDC** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.015 | 6 | 7 | OVR TC 06V P | 2CTB804820R0000 |
| **Cartridges** | | | | | | | | | |
| 1 | | 10 | 5 | - | 0.015 | 6 | 7 | OVR TC 06V C | 2CTB804821R0000 |
| **Uc 14VDC** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.02 | 12 | 14 | OVR TC 12V P | 2CTB804820R0100 |
| **Cartridges** | | | | | | | | | |
| 1 | | 10 | 5 | - | 0.02 | 12 | 14 | OVR TC 12V C | 2CTB804821R0100 |
| **Uc 27VDC** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.035 | 24 | 27 | OVR TC 24V P | 2CTB804820R0200 |
| **Cartridges** | | | | | | | | | |
| 1 | | 10 | 5 | - | 0.035 | 24 | 27 | OVR TC 24V C | 2CTB804821R0200 |
| **Uc 53VDC** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.07 | 48 | 53 | OVR TC 48V P | 2CTB804820R0300 |
| **Cartridges** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.07 | 48 | 53 | OVR TC 48V C | 2CTB804821R0300 |
| **Uc 220VDC** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.7 | 200 | 220 | OVR TC 200V P | 2CTB804820R0400 |
| 1 | - | 10 | 5 | - | 0.4 | 200 | 220 | OVR TC 200FR P | 2CTB804820R0500 |
| **Cartridges** | | | | | | | | | |
| 1 | - | 10 | 5 | - | 0.7 | 200 | 220 | OVR TC 200V C | 2CTB804821R0400 |
| 1 | - | 10 | 5 | - | 0.4 | 200 | 220 | OVR TC 200FR C | 2CTB804821R0500 |

# Protection and safety
## OVR Type 1 surge protective devices, single pole




OVR T1

5

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1 25-255-7 | OVR T1 25-440-50 | OVR T1 25-255 |
| | with auxiliary contact (TS) | | – | – | – |
| Technology | | | Spark-gap | Spark-gap | Spark-gap |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | |
| Type / test class | | | T1 / I | T1 / I | T1 / I |
| Protected lines | | | 1 | 1 | 1 |
| Types of networks | | | TNC / TNS / TT | IT / TNC / TNS / TT | TNC / TNS / TT |
| Type of current | | | AC | AC | AC |
| Nominal voltage Un | | [V] | 230 / 400 | 400 / 690 | 230 / 400 |
| Maximum continuous operating voltage Uc | | [V] | 255 | 440 | 255 |
| Maximum impulse current Iimp (10/350) | | [kA] | 25 | 25 | 25 |
| Maximum impulse current Tot. Iimp (10/350) | | [kA] | 25 | 25 | 25 |
| Nominal discharge current In (8/20) | | [kA] | 25 | 25 | 25 |
| Follow current interrupting rating Ifi | | [kA] | 7 | 50 | 50 |
| Voltage protection level Up at In | | [kV] | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 |
| Voltage protection level Ures at 3 kA | | [kV] | ≤ 0.9 | ≤ 1.3 | ≤ 0.9 |
| TOV (Temporary overvoltage) withstand Ut | | | | | |
| | (L-N: 5 s / N-PE: 200 ms) | [V] | 650 / – | 690 / – | 450 / – |
| Response time | | [ns] | ≤ 100 | ≤ 100 | ≤ 100 |
| Residual current IPE | | [µA] | 10 | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| | Circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | No | No | No |
| Integrated thermal disconnector | | | – | – | – |
| State indicator | | | Yes | No | No |
| Safety reserve | | | No | No | No |
| Auxiliary contact | | | No | No | No |
| **Installation** | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…50 | 2.5…50 | 2.5…50 |
| | Stranded wire | [mm²] | 2.5…35 | 2.5…35 | 2.5…35 |
| Stripping length (L, N, PE) | | [mm] | 15 | 15 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 3.5 | 3.5 | 3.5 |
| **Auxiliary contact (TS)** | | | | | |
| Contact complement | | | – | – | – |
| Minimum load | | | – | – | – |
| Maximum load | | | – | – | – |
| Connection cross-section | | [mm²] | – | – | – |
| **Miscellaneous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 17.8 x 70.8 | 90 x 35 x 64.8 | 90 x 35 x 64.8 |
| | | [inches] | 3.34 x 0.70 x 2.78 | 3.54 x 1.38 x 2.55 | 3.54 x 1.38 x 2.55 |
| Dimensions with auxiliary contact (TS) | height x width x depth | [mm] | – | – | – |
| | | [inches] | – | – | – |

Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

**Follow current interrupting rating 7 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 7 | 2.5 | 230/400 | 255 | 514110 | OVR T1 25-255-7 | 2CTB815101R8700 | | 0.16 |

**Follow current interrupting rating 50 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 50 | 2.5 | 400/690 | 440 | 514929 | OVR T1 25-440-50 | 2CTB815101R9300 | | 0.31 |
| 1 | 25 | 50 | 2.5 | 230/400 | 255 | 510877 | OVR T1 25-255 | 2CTB815101R0100 | | 0.31 |



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# Protection and safety
## OVR Type 1 surge protective devices TNC 230 V networks




OVR T1 3L 25-255

5

| Technical features | | | | |
|---|---|---|---|---|
| Types | | | OVR T1 3L 25-255 | – |
| | with auxiliary contact (TS) | | – | OVR T1 3L 25-255 TS |
| Technology | | | Spark-gap | Spark-gap |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | |
| Type / test class | | | T1 / I | T1 / I |
| Protected lines | | | 3 | 3 |
| Types of networks | | | TNC | TNC |
| Type of current | | | AC | AC |
| Nominal voltage Un | | [V] | 230 / 400 | 230 / 400 |
| Maximum continuous operating voltage Uc | | [V] | 255 | 255 |
| Maximum impulse current Iimp (10/350) | | [kA] | 25 | 25 |
| Maximum impulse current Tot. Iimp (10/350) | | [kA] | 75 | 75 |
| Nominal discharge current In (8/20) | | [kA] | 25 | 25 |
| Follow current interrupting rating Ifi | | [kA] | 50 | 50 |
| Voltage protection level Up at In | | [kV] | ≤ 2.5 | ≤ 2.5 |
| Voltage protection level Ures at 3 kA | | [kV] | ≤ 0.9 | ≤ 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 450 / – | 450 / – |
| Response time | | [ns] | ≤ 100 | ≤ 100 |
| Residual current IPE | | [µA] | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 |
| | Circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | No | No |
| Integrated thermal disconnector | | | – | – |
| State indicator | | | No | Yes |
| Safety reserve | | | No | No |
| Auxiliary contact | | | No | Yes |
| **Installation** | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…50 | 2.5…50 |
| | Stranded wire | [mm²] | 2.5…35 | 2.5…35 |
| Stripping length (L, N, PE) | | [mm] | 15 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 3.5 | 3.5 |
| **Auxiliary contact (TS)** | | | | |
| Contact complement | | | – | 1 NO - 1 NC |
| Minimum load | | | – | 12 V DC - 10 mA |
| Maximum load | | | – | 250 V AC - 1 A |
| Connection cross-section | | [mm²] | – | 1.5 |
| **Miscellaneous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 90 x 105 x 64.8 | – |
| | | [inches] | 3.54 x 4.13 x 2.55 | – |
| with auxiliary contact (TS) | height x width x depth | [mm] | – | 90 x 122.5 x 64.8 |
| | | [inches] | – | 3.54 x 4.82 x 2.55 |

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Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

**Follow current interrupting rating 50 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 25 | 50 | 2.5 | 230/400 | 255 | 510907 | OVR T1 3L 25-255 | 2CTB815101R1300 | | 0.94 |
| 3 | 25 | 50 | 2.5 | 230/400 | 255 | 510952 | OVR T1 3L 25-255 TS | 2CTB815101R0600 | | 1.00 |

# Protection and safety
## OVR Type 1 surge protective devices TNS/TT 230 V 1Ph+N networks




OVR T1 1N 25-255

5

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1 1N 25-255 | – | OVR T1 2L 25-255 |
| | with auxiliary contact (TS) | | – | OVR T1 1N 25-255 TS | OVR T1 2L 25-255 TS |
| Technology | | | Spark-gap | Spark-gap | Spark-gap |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | |
| Type / test class | | | T1 / I | T1 / I | T1 / I |
| Protected lines | | | 1+1 | 1+1 | 2 |
| Types of networks | | | TNS / TT | TNS / TT | TNS |
| Type of current | | | AC | AC | AC |
| Nominal voltage Un | | [V] | 230 / 400 | 230 / 400 | 230 / 400 |
| Maximum continuous operating voltage Uc | | [V] | 255 | 255 | 255 |
| Maximum impulse current Iimp (10/350) | | [kA] | 25 | 25 | 25 |
| Maximum impulse current Tot. Iimp (10/350) | | [kA] | 50 | 50 | 50 |
| Nominal discharge current In (8/20) | | [kA] | 25 | 25 | 25 |
| Follow current interrupting rating Ifi | | [kA] | 50 | 50 | 50 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 2.5 / – / 2.5 | 2.5 / – / 2.5 | ≤ 2.5 |
| Voltage protection level Ures at 3 kA (L-N/N-PE/L-PE) | | [kV] | 0.9 / – / 0.9 | 0.9 / – / 0.9 | ≤ 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 450 / 1200 | 450 / 1200 | 450 / – |
| Response time | | [ns] | ≤ 100 | ≤ 100 | ≤ 100 |
| Residual current IPE | | [µA] | 10 | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| | Circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | No | No | No |
| Integrated thermal disconnector | | | – | – | – |
| State indicator | | | No | Yes | TS Option |
| Safety reserve | | | No | No | No |
| Auxiliary contact | | | No | Yes | TS Option |
| **Installation** | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…50 | 2.5…50 | 2.5…50 |
| | Stranded wire | [mm²] | 2.5…35 | 2.5…35 | 2.5…35 |
| Stripping length (L, N, PE) | | [mm] | 15 | 15 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 3.5 | 3.5 | 3.5 |
| **Auxiliary contact (TS)** | | | | | |
| Contact complement | | | – | 1 NO - 1 NC | 1 NO - 1 NC |
| Minimum load | | | – | 12 V DC - 10 mA | 12 V DC - 10 mA |
| Maximum load | | | – | 250 V AC - 1 A | 250 V AC - 1 A |
| Connection cross-section | | [mm²] | – | 1.5 | 1.5 |
| **Miscellaneous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 90 x 70.4 x 64.8 | – | 90 x 70.4 x 64.8 |
| | | [inches] | 3.54 x 2.77 x 2.55 | – | 3.54 x 2.77 x 2.55 |
| with auxiliary contact (TS) | height x width x depth | [mm] | – | 90 x 88 x 64.8 | 90 x 88 x 64.8 |
| | | [inches] | – | 3.54 x 3.46 x 2.55 | 3.54 x 3.46 x 2.55 |

Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

**Follow current interrupting rating 50 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1+1 | 25 | 50 | 2.5 | 230/400 | 255 | 510921 | OVR T1 1N 25-255 | 2CTB815101R1500 | | 0.53 |
| 1+1 | 25 | 50 | 2.5 | 230/400 | 255 | 510976 | OVR T1 1N 25-255 TS | 2CTB815101R1000 | | 0.64 |
| 2 | 25 | 50 | 2.5 | 230/400 | 255 | 510891 | OVR T1 2L 25-255 | 2CTB815101R1200 | | 0.63 |
| 2 | 25 | 50 | 2.5 | 230/400 | 255 | 510945 | OVR T1 2L 25-255 TS | 2CTB815101R1100 | | 0.64 |



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# Protection and safety
## OVR Type 1 surge protective devices TNS/TT 230 V 3Ph+N networks




**OVR T1 3N 25-255-7**



| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1 4L 25-255 | OVR T1 3N 25-255 | OVR T1 3N 25-255-7 |
| | with auxiliary contact (TS) | | OVR T1 4L 25-255 TS | OVR T1 3N 25-255 TS | – |
| Technology | | | Spark-gap | Spark-gap | Spark-gap |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | |
| Type / test class | | | T1 / I | T1 / I | T1 / I |
| Protected lines | | | 4 | 3+1 | 3+1 |
| Types of networks | | | TNS | TNS / TT | TNS / TT |
| Type of current | | | AC | AC | AC |
| Nominal voltage Un | | [V] | 230 / 400 | 230 / 400 | 230 / 400 |
| Maximum continuous operating voltage Uc | | [V] | 255 | 255 | 255 |
| Maximum impulse current Iimp (10/350) | | [kA] | 25 | 25 | 25 |
| Maximum impulse current Tot. Iimp (10/350) | | [kA] | 100 | 100 | 100 |
| Nominal discharge current In (8/20) | | [kA] | 25 | 25 | 25 |
| Follow current interrupting rating Ifi | | [kA] | 50 | 50 | 7 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | ≤ 2.5 | 2.5 / 2.5 / 2.5 | 2.0 / 2.0 / 2.0 |
| Voltage protection level Ures at 3 kA (L-N/N-PE/L-PE) | | [kV] | ≤ 0.9 | 0.9 / 0.9 / 0.9 | 0.9 / 0.9 / 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 450 / – | 450 / 1200 | 650 / 1200 |
| Response time | | [ns] | ≤ 100 | ≤ 100 | ≤ 100 |
| Residual current IPE | | [µA] | 10 | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| | Circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | No | No | No |
| Integrated thermal disconnector | | | – | | – |
| State indicator | | | Yes | Yes | Yes |
| Safety reserve | | | No | No | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) | No |
| **Installation** | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…50 | 2.5…50 | 2.5…50 |
| | Stranded wire | [mm²] | 2.5…35 | 2.5…35 | 2.5…35 |
| Stripping length (L, N, PE) | | [mm] | 15 | 15 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 3.5 | 3.5 | 3.5 |
| **Auxiliary contact (TS)** | | | | | |
| Contact complement | | | 1 NO - 1 NC | 1 NO - 1 NC | – |
| Minimum load | | | 12 V DC - 10 mA | 12 V DC - 10 mA | – |
| Maximum load | | | 250 V AC - 1 A | 250 V AC - 1 A | – |
| Connection cross-section | | [mm²] | 1.5 | 1.5 | – |
| **Miscellaneous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 90 x 140 x 64.8 | 90 x 140 x 64.8 | 85 x 89 x 70.6 |
| | | [inches] | 3.54 x 5.51 x 2.55 | 3.54 x 5.51 x 2.55 | 3.35 x 3.50 x 2.78 |
| with auxiliary contact (TS) | height x width x depth | [mm] | 90 x 157.5 x 64.8 | 90 x 157.5 x 64.8 | – |
| | | [inches] | 3.54 x 6.20 x 2.55 | 3.54 x 6.20 x 2.55 | – |

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Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

**Follow current interrupting rating 7 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3+1 | 25 | 7 | 2.5 | 230/400 | 255 | 514127 | OVR T1 3N 25-255-7 | 2CTB815101R8800 | | 0.84 |

**Follow current interrupting rating 50 kA**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 25 | 50 | 2.5 | 230/400 | 255 | 510914 | OVR T1 4L 25-255 | 2CTB815101R1400 | | 1.16 |
| 4 | 25 | 50 | 2.5 | 230/400 | 255 | 510969 | OVR T1 4L 25-255 TS | 2CTB815101R0800 | | 1.26 |
| 3+1 | 25 | 50 | 2.5 | 230/400 | 255 | 510938 | OVR T1 3N 25-255 | 2CTB815101R1600 | | 1.16 |
| 3+1 | 25 | 50 | 2.5 | 230/400 | 255 | 510983 | OVR T1 3N 25-255 TS | 2CTB815101R0700 | | 1.26 |

# Protection and safety
## OVR Type 1 surge protective devices Single pole neutral




OVR T1 100 N

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| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1 25 N | OVR T1 50 N | OVR T1 100 N |
| | with auxiliary contact (TS) | | – | – | – |
| Technology | | | Gas discharge tube (GDT) | Gas discharge tube (GDT) | Gas discharge tube (GDT) |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | |
| Type / test class | | | T1 / I | T1 / I | T1 / I |
| Protected lines | | | 1 | 1 | 1 |
| Types of networks | | | Neutral | Neutral | Neutral |
| Type of current | | | AC | AC | AC |
| Nominal voltage Un | | [V] | 400 / 690 | 230 / 400 | 230 / 400 |
| Maximum continuous operating voltage Uc | | [V] | 690 | 255 | 255 |
| Maximum impulse current Iimp (10/350) | | [kA] | 25 | 50 | 100 |
| Maximum impulse current Tot. Iimp (10/350) | | [kA] | 25 | 50 | 100 |
| Nominal discharge current In (8/20) | | [kA] | 25 | 50 | 25 |
| Follow current interrupting rating Ifi | | [kA] | 0.1 | 0.1 | 0.1 |
| Voltage protection level Up at In | | [kV] | ≤ 4 | ≤ 1.5 | ≤ 2 |
| Voltage protection level Ures at 3 kA | | [kV] | – | 0.9 | 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | – / 1200 | – / 1200 | – / 1200 |
| Response time | | [ns] | ≤ 100 | ≤ 100 | ≤ 100 |
| Residual current IPE | | [µA] | 10 | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | – | – | – |
| | Circuit breaker (B or C curve) | [A] | – | – | – |
| Pluggable cartridge | | | No | No | No |
| Integrated thermal disconnector | | | – | | – |
| State indicator | | | No | No | No |
| Safety reserve | | | No | No | No |
| Auxiliary contact | | | No | No | No |
| **Installation** | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…50 | 2.5…50 | 2.5…50 |
| | Stranded wire | [mm²] | 2.5…35 | 2.5…35 | 2.5…35 |
| Stripping length (L, N, PE) | | [mm] | 15 | 15 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 3.5 | 3.5 | 3.5 |
| **Auxiliary contact (TS)** | | | | | |
| Contact complement | | | – | – | – |
| Minimum load | | | – | – | – |
| Maximum load | | | – | – | – |
| Connection cross-section | | [mm²] | – | – | – |
| **Miscellaneous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 17.8 x 64.8 | 85 x 35.6 x 64.8 | 85 x 35.6 x 64.8 |
| | | [inches] | 3.35 x 0.70 x 2.55 | 3.35 x 1.40 x 2.55 | 3.35 x 1.40 x 2.55 |
| with auxiliary contact (TS) | height x width x depth | [mm] | – | – | – |
| | | [inches] | – | – | – |

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S200 MCBs p.2/16
Fuses and fuseholders p.5/94

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).
Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

**Type 1 Neutral**

| Poles | Impulse current Iimp 10/350 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | - | 4 | 400/690 | 690 | 517043 | OVR T1 25 N | 2CTB815101R9700 | | 0.15 |
| 1 | 50 | - | 1.5 | 230/400 | 255 | 510853 | OVR T1 50 N | 2CTB815101R0400 | | 0.29 |
| 1 | 100 | - | 2 | 230/400 | 255 | 510860 | OVR T1 100 N | 2CTB815101R0500 | | 0.29 |

# Protection and safety
## OVR Type 1+2 surge protective devices Single pole




**OVR T1-T2 12.5-275s P QS**

5

| Technical features | | | | |
|---|---|---|---|---|
| Types | | | **OVR T1-T2 12.5-275s P QS** | **OVR T1-T2 12.5-440s P QS** |
| with auxiliary contact (TS) | | | **OVR T1-T2 12.5-275s P TS QS** | **OVR T1-T2 12.5-440s P TS QS** |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T1-T2/I - II | T1-T2/I - II |
| Protected lines | | | 1 | 1 |
| System network | | | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz |
| Nominal system voltage Un | | [V] | 230 | 400 |
| Max. cont. operating voltage Uc | | [V] | 275 | 440 |
| Nominal dc voltage Un dc L-PE | | [V dc] | 320 | 495 |
| Max. dc. cont. operating voltage Ucdc L-PE | | [V dc] | 355 | 545 |
| Maximum impulse current Iimp (10/350) | | [kA] | 12.5 | 12.5 |
| Nominal discharge current In 8/20) | | [kA] | 20 | 20 |
| Maximum discharge current Imax (8/20) | | [kA] | 80 | 80 |
| Follow current interrupting rating Ifi | | [kA] | - | - |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,3 /- /1,3 | 1,3 /- /1,3 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.5 | 0.5 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337/ | 581/ |
| Response time | | [ns] | < 25 | < 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 |
| Backup protection maximum | fuse (gG - gL) | [A] | ≤ 160 | ≤ 160 |
| rating | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes |
| Integrated thermal disconnector | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | Yes | Yes |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 35 | 2.5 … 35 |
| | stranded wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 6.5 | 6.5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | - 40 to +80 | - 40 to +80 |
| Degree of protection | | | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | | V-0 | V-0 |
| **Dimensions** | | | | |
| height x width x depth | | [mm] | 85x17.8x69.4 | 85x35.6x69.4 |
| | | [inches] | 3.35x0.70x2.73 | 3.35x1.40x2.73 |
| **Dimensions with auxilary contact (TS)** | | | | |
| height x width x depth | | [mm] | 96x17.8x69.4 | 96x35.6x69.4 |
| | | [inches] | 3.78x0.70x2.73 | 3.78x1.40x2.73 |
| **Replacement Cartridges** | | | | |
| Phase Product ID | | | OVR T1-T2 12.5-275s C QS<br>2CTB815710R2600 | OVR T1-T2 12.5-440s C QS<br>2CTB815710R5500 |
| Neutral Product ID | | | - | - |

| | | | | |
|---|---|---|---|---|
| | **OVR T1-T2 N 50-275s P QS** | **OVR T1-T2 N 50-440s P QS** | **-**<br>**OVR T1+2 25-255 TS** | **OVR T1+2 15-255-7** |
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T1-T2/I - II | T1-T2/I - II | T1+2/I - II | T1+2/I - II |
| | N | N | 1 | 1 |
| | TT (N) - TNS (N) | TT (N) - TNS (N) | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC |
| | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| | 230 | 400 | 230 | 230 |
| | 275 | 440 | 255 | 255 |
| | - | - | - | - |
| | - | - | - | - |
| | 50 | 50 | 25 | 15 |
| | 30 | 30 | 25 | 15 |
| | 80 | 80 | 60 | 60 |
| | - | - | 15 | 7 |
| | 1,3 /- /1,3 | 1,3 / /1,3 | 1.5 | 1.5 |
| | - | - | 1.0 | 0.8 |
| | -/1200 | -/1200 | 334/- | 650/- |
| | ≤10 | ≤10 | < 100 | < 100 |
| | ≤100 | ≤100 | ≤50 | ≤50 |
| | - | - | ≤125 | ≤125 |
| | - | - | ≤125 | ≤125 |
| | Yes | Yes | No | No |
| | No | No | No | No |
| | No | No | Yes | Yes |
| | No | No | No | No |
| | No | No | Yes | No |
| | 2.5 … 50 | 2.5 … 50 | 2.5 … 50 | 2.5 … 50 |
| | 2.5 … 35 | 2.5 … 35 | 2.5 … 35 | 2.5 … 35 |
| | 12.5 | 12.5 | 15 | 15 |
| | 3.5 | 3.5 | 3.5 | 3.5 |
| | | | 1 NO - 1 NC | |
| | | | 12 V DC - 10 mA | |
| | | | 250 VAC - 1 A | |
| | | | 1.5 | |
| | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| | V0 | V0 | V0 | V0 |
| | 85x17.8x69.4 | 85x17.8x69.4 | | 85x17.8x70.8 |
| | 3.35x0.70x2.73 | 3.35x0.70x2.73 | | 3.35x0.70x2.79 |
| | | | 90 x 35 x 58 | |
| | | | 3.66 x 1.38 x 2.28 | |
| | | | | |
| | OVR T1-T2 N 50-275s C QS<br>2CTB815710R2700 | OVR T1-T2 N 50-440s C QS<br>2CTB815710R5600 | | |

# Protection and safety
## OVR Type 1+2 surge protective devices Single pole

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).
Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

| Poles | Impulse current Iimp 10/350 kA | Max. discharge current Imax 8/20 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660 308 EAN | Order details Type code | Order code | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524881 | OVR T1-T2 12.5-275s P TS QS (*) | 2CTB815710R0000 | 0.15 |
| 1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524959 | OVR T1-T2 12.5-275s P QS (*) | 2CTB815710R1200 | 0.15 |
| 1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525055 | OVR T1-T2 12.5-440s P TS QS (*) | 2CTB815710R2900 | 0.30 |
| 1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525123 | OVR T1-T2 12.5-440s P QS (*) | 2CTB815710R4100 | 0.30 |
| 1 | 50 | 80 | - | 1,3 | 230 | 255 | 525024 | OVR T1-T2 N 50-275s P QS (*) | 2CTB815710R2400 | 0.15 |
| 1 | 50 | 80 | - | 1,3 | 400 | 440 | 525192 | OVR T1-T2 N 50-440s P QS (*) | 2CTB815710R5300 | 0.14 |
| 1 | 25 | 60 | 15 | 1.5 | 230 | 255 | 510884 | OVR T+2 25 -255 TS | 2CTB815101R0300 | 0.27 |
| 1 | 15 | 60 | 7 | 1.7 | 230 | 255 | 514134 | OVR T+2 15 -255 -7 | 2CTB815101R8900 | 0.14 |

**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL.
OVR SL is a very compact SPD, equipped with a patented thermal disconnector and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.
**www.abb.com/lowvoltage**





# Protection and safety
## OVR Type 1+2 surge protective devices TNC 230 and 400 V networks



| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1-T2 3L 12.5-275s P QS | OVR T1-T2 3L 12.5-440s P QS | |
| with auxiliary contact (TS) | | | OVR T1-T2 3L 12.5-275s P TS QS | OVR T1-T2 3L 12.5-440s P TS QS | OVR T1+2 3L 25-255 TS |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T1-T2/I - II | T1-T2/I - II | T1+2/I - II |
| Protected lines | | | 3 | 3 | 3 |
| System network | | | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| Nominal system voltage Un | | [V] | 230 | 400 | 230 |
| Max. cont. operating voltage Uc | | [V] | 275 | 440 | 255 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | [V dc] | 320/640 | 495 / 990 | - |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | [V dc] | 355/710 | 545 / 1090 | - |
| Maximum impulse current Iimp (10/350) | | [kA] | 12.5 | 12.5 | 25 |
| Max.Imp current Tot Iimp (10/350) | | [kA] | 37.5 | 37.5 | 75 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 | 25 |
| Maximum discharge current Imax (8/20) | | [kA] | 80 | 80 | 60 |
| Follow current interrupting rating Ifi | | [kA] | 100 | 100 | 15 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,3 /- /1,3 | 1,3 /- /1,3 | 1.5 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.5 | 0.8 | 1.0 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337/– | 581/– | 334/- |
| Response time | | [ns] | ≤ 25 | ≤ 25 | < 100 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 | ≤50 |
| Backup protection | fuse (gG - gL) | [A] | ≤ 160 | ≤ 160 | ≤125 |
| maximum rating | circuit breaker (B or C) | [A] | ≤ 125 | ≤ 125 | ≤125 |
| Pluggable cartridge | | | Yes | Yes | Yes |
| Integrated thermal disconnector | | | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes |
| Safety reserve | | | Yes | Yes | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) | Yes |
| **Installation** | | | | | |
| Wire range (L, | solid wire | [mm²] | 2.5 … 35 | 2.5 … 35 | 2.5 … 50 |
| N, PE) | stranded wire | [mm²] | 2.5 … 25 | 2.5 … 25 | 2.5 … 35 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 15 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 | 3.5 |
| **Auxiliary contact (TS)** | | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC | 3 NO - 3 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA | 12 V DC - 10 mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A | 250 VAC - 1 A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | - 40 to +80 | - 40 to +80 | -40 to +80 |
| Degree of protection | | | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | | V-0 | V-0 | V0 |
| **Dimensions** | | | | | |
| height x width x depth | | [mm] | 85x53.4x69.4 | 85 x 106.8 x 69.4 | |
| | | [inches] | 3.35x2.10x2.73 | 3.35 x 4.20 x 2.73 | |
| **Dimensions with auxilary contact (TS)** | | | | | |
| height x width x depth | | [mm] | 96x53.4x69.4 | 96 x 106.8 x 69.4 | 90 x 106.8 x 58 |
| | | [inches] | 3.78x2.10x2.73 | 3.78 x 4.20 x 2.73 | 3.66 x 4.20 x 2.28 |
| **Replacement Cartridges** | | | | | |
| Phase Product ID | | | OVR T1-T2 12.5-275s C QS | OVR T1-T2 12.5-440s C QS | OVR T1+2 25-255 c |
| | | | 2CTB815710R2600 | 2CTB815710R5500 | 2CTB815101R3700 |

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).
Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

| Poles | Impulse current Iimp 10/350 kA | Max discharge current Imax 8/20 kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 12.5 | 80 | 1,3 | 230 | 275 | 524911 | OVR T1-T2 3L 12.5-275s P TS QS (*) | 2CTB815710R0600 | | 0.45 |
| 3 | 12.5 | 80 | 1,3 | 230 | 275 | 524980 | OVR T1-T2 3L 12.5-275s P QS (*) | 2CTB815710R1800 | | 0.45 |
| 3 | 12.5 | 80 | 1,3 | 400 | 440 | 525086 | OVR T1-T2 3L 12.5-440s P TS QS (*) | 2CTB815710R3500 | | 0.90 |
| 3 | 12.5 | 80 | 1,3 | 400 | 440 | 525154 | OVR T1-T2 3L 12.5-440s P QS (*) | 2CTB815710R4700 | | 0.90 |
| 3 | 25 | 60 | 1.5 | 230 | 255 | 513397 | OVR T1+T2 3L 25-255 TS | 2CTB815101R4300 | | 0.85 |

(*) Available products on Summer 2015



**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Protection and safety
## OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1-T2 1N 12.5-275s P QS | OVR T1+2 3N 15-255-7 | OVR T1-T2 3N 12.5-275s P QS |
| with auxiliary contact (TS) | | | OVR T1-T2 1N 12.5-275s P TS QS | | OVR T1-T2 3N 12.5-275s P TS QS |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T1-T2/I - II | T1+2/I - II | T1-T2/I - II |
| Protected lines | | | 1+1 | 3+1 | 3+1 |
| System network | | | TT (L-N) - TNS | TNS / TT | TT - TNS |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| Nominal system voltage Un | | [V] | 230 | 230 | 230 |
| Max. cont. operating voltage Uc | | [V] | 275 | 255 | 275 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | [V dc] | - | - | - |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | [V dc] | - | - | - |
| Maximum impulse current Iimp (10/350) | | [kA] | 12.5 | 15 | 12.5 |
| Max.Imp current Tot Iimp (10/350) | | [kA] | 25 | 50 | 50 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 15 | 20 |
| Maximal discharge current Imax (8/20) kA | | [kA] | 80 | 50 | 80 |
| Follow current interrupting rating Ifi | | [kA] | | | |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,3 /1,1 /1,3 | 1.7/1.5/1.7 | 1,3 /1,1 /1,3 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.5 | 0.9 | 0.5 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337/1200 | 650/1200 | 337/1200 |
| Response time | | [ns] | ≤ 25 | < 100 | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | ≤50 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 160 | ≤ 125 | ≤ 160 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | No | Yes |
| Integrated thermal disconnector | | | Yes | No | Yes |
| State indicator | | | Yes | Yes | Yes |
| Safety reserve | | | Yes | No | Yes |
| Auxiliary contact | | | Yes (TS option) | No | Yes (TS option) |
| **Installation** | | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 35 | 2.5 … 50 | 2.5 … 35 |
| | stranded wire | [mm²] | 2.5 … 25 | 2.5 … 50 | 2.5 … 25 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 15 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 3.5 | 2.8 |
| **Auxiliary contact (TS)** | | | | | |
| Contacts information | | | 1 NO- 1 NC | | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | | 1.5 |
| **Miscellanous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | - 40 to +80 | - 40 to +80 | - 40 to +80 |
| Degree of protection | | | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | | V-0 | V-0 | V-0 |
| **Dimensions** | | | | | |
| height x width x depth | | [mm] | 85x35.6x69.4 | | 85x71.2x69.4 |
| | | [in] | 3.35x1.40x2.73 | | 3.35x2.80x2.73 |
| **Dimensions with auxilary contact (TS)** | | | | | |
| height x width x depth | | [mm] | 96x35.6x69.4 | | 96x71.2x69.4 |
| | | [in] | 3.78x1.40x2.73 | | 3.78x2.80x2.73 |
| **Replacement Cartridges** | | | | | |
| Phase Product ID | | | OVR T1-T2 12.5-275s C QS 2CTB815710R2600 | | OVR T1-T2 12.5-275s C QS 2CTB815710R2600 |
| Neutral Product ID | | | OVR T1-T2 N 50-275s C QS 2CTB815710R2700 | | OVR T1-T2 N 50-275s C QS 2CTB815710R2700 |

| | | | | |
|---|---|---|---|---|
| | **OVR T1-T2 4L 12.5-275s P QS** | | | |
| | **OVR T1-T2 4L 12.5-275s P TS QS** | **OVR T1+2 1N 25-255 TS** | **OVR T1+2 3N 25-255 TS** | **OVR T1+2 4L 25-255 TS** |
| | | | | |
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T1-T2/I - II | T1+2/I - II | T1+2/I - II | T1+2/I - II |
| | 4 | 1+N | 3+N | 3+N |
| | TNS | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC |
| | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| | 230 | 230 | 230 | 230 |
| | 275 | 255 | 255 | 255 |
| | 495 / 990 | - | - | - |
| | 545 / 1090 | - | - | - |
| | 12.5 | 25 | 25 | 25 |
| | 50 | 50 | 100 | 100 |
| | 20 | 25 | 25 | 25 |
| | 80 | 60 | 60 | 60 |
| | | 15 | 15 | 15 |
| | 1.5 | 1.5 | 1.5 | 1.5 |
| | 0.5 | 1.0 | 1.0 | 1.0 |
| | 337/ | 334/- | 334/- | 334/- |
| | ≤ 25 | < 100 | < 100 | < 100 |
| | 100 | ≤50 | ≤50 | ≤50 |
| | ≤ 160 | ≤125 | ≤125 | ≤125 |
| | ≤ 125 | ≤125 | ≤125 | ≤125 |
| | Yes | Yes | Yes | No |
| | Yes | Yes | Yes | Yes |
| | Yes | Yes | Yes | Yes |
| | Yes | No | No | No |
| | Yes (TS option) | Yes | Yes | Yes |
| | | | | |
| | 2.5 … 35 | 2.5 … 50 | 2.5 … 50 | 2.5 … 50 |
| | 2.5 … 25 | 2.5 … 35 | 2.5 … 35 | 2.5 … 35 |
| | 12.5 | 15 | 15 | 15 |
| | 2.8 | 3.5 | 3.5 | 3.5 |
| | | | | |
| | 1 NO- 1 NC | 1 NO - 1 NC | 3 NO - 3 NC | 4 NO - 4 NC |
| | 12DC - 10mA | 12 V DC - 10 mA | 12 V DC - 10 mA | 12 V DC - 10 mA |
| | 250VAC - 1A | 250 VAC - 1 A | 250 VAC - 1 A | 250 VAC - 1 A |
| | 1.5 | 1.5 | 1.5 | 1.5 |
| | | | | |
| | - 40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| | V-0 | V0 | V0 | V0 |
| | | | | |
| | 85x71.2x69.4 | 90 x 70 x 58 | 90 x 170 x 58 | 90 x 170 x 58 |
| | 3.35x2.80x2.73 | 3.66 x 2.76 x 2.28 | 3.66 x 5.12 x 2.28 | 3.66 x 5.12 x 2.28 |
| | | | | |
| | 96x71.2x69.4 | | | |
| | 3.78x2.80x2.73 | | | |
| | | | | |
| | OVR T1-T2 12.5-275s C QS | OVR T1+2 25-255 c | OVR T1+2 25-255 c | OVR T1+2 25-255 c |
| | 2CTB815710R2600 | 2CTB815101R3700 | 2CTB815101R3700 | 2CTB815101R3700 |
| | | | | |

# Protection and safety
## OVR Type 1+2 surge protective devices TNS/TT 400 V 1Ph+N and 3Ph+N networks

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | OVR T1-T2 1N 12.5-440s P QS | OVR T1-T2 3N 12.5-440s P QS | OVR T1-T2 4L 12.5-440s P QS |
| with auxiliary contact (TS) | | | OVR T1-T2 1N 12.5-440s P TS QS | OVR T1-T2 3N 12.5-440s P TS QS | OVR T1-T2 4L 12.5-440s P TS QS |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T1-T2/I - II | T1-T2/I - II | T1-T2/I - II |
| Protected lines | | | 1+1 | 3+1 | 4 |
| System network | | | TT (L-N) - TNS | TT- TNS | TNS |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| Nominal system voltage Un | | [V] | 400 | 400 | 400 |
| Max. cont. operating voltage Uc | | [V] | 440 | 440 | 440 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | [V dc] | - | - | 320/640 |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | [V dc] | - | - | 355/710 |
| Maximum impulse current Iimp (10/350) | | [kA] | 12.5 | 12.5 | 12.5 |
| Max.Imp current Tot Iimp (10/350) | | [kA] | 25 | 50 | 50 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 | 20 |
| Maximal discharge current Imax (8/20) kA | | [kA] | 80 | 80 | 80 |
| Follow current interrupting rating Ifi | | [kA] | | | |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,3 /1,6 /1,3 | 1,3 /1,6 /1,3 | 1,3 /- /1,3 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.8 | 0.8 | 0.8 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 581/1200 | 581/1200 | 581/ |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 160 | ≤ 160 | ≤ 160 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes | Yes |
| Integrated thermal disconnector | | | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes |
| Safety reserve | | | Yes | Yes | Yes |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 35 | 2.5 … 35 | 2.5 … 35 |
| | stranded wire | [mm²] | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | | |
| Stocking and operating temperature | | [°C] | - 40 to +80 | - 40 to +80 | - 40 to +80 |
| Degree of protection | | | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | | V-0 | V-0 | V-0 |
| **Dimensions** | | | | | |
| height x width x depth | | [mm] | 85x53.4x69.4 | 85x124.6x69.4 | 85x142.4x69.4 |
| | | [in] | 3.35x2.80x2.73 | 3.35x5.60x2.73 | 3.35x5.60x2.73 |
| **Dimensions with auxilary contact (TS)** | | | | | |
| height x width x depth | | [mm] | 96x53.4x69.4 | 96x124.6x69.4 | 96x142.4x69.4 |
| | | [in] | 3.78x2.80x2.73 | 3.78x5.60x2.73 | 3.78x5.60x2.73 |
| **Replacement Cartridges** | | | | | |
| Phase Product ID | | | OVR T1-T2 12.5-440s C QS 2CTB815710R5500 | OVR T1-T2 12.5-440s C QS 2CTB815710R5500 | OVR T1-T2 12.5-440s C QS 2CTB815710R5500 |
| Neutral Product ID | | | OVR T1-T2 N 50-440s C QS 2CTB815710R5600 | OVR T1-T2 N 50-440s C QS 2CTB815710R5600 | |




**OVR T1-T2 1N 12.5-440s P TS QS**

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 µs wave form which simulate natural lightning current.
Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).
Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

| Poles | Impulse current Iimp 10/350 kA | Max. discharge current Imax 8/20 kA | Follow current interrupting rating Ifi kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660 308 EAN | Order details Type code | Order code | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1+1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524966 | OVR T1-T2 1N 12.5-275s P QS (*) | 2CTB815710R1300 | 0.30 |
| 1+1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524898 | OVR T1-T2 1N 12.5-275s P TS QS (*) | 2CTB815710R0100 | 0.30 |
| 1+1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525130 | OVR T1-T2 1N 12.5-440s P QS (*) | 2CTB815710R4200 | 0.45 |
| 1+1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525062 | OVR T1-T2 1N 12.5-440s P TS QS (*) | 2CTB815710R3000 | 0.45 |
| 3+1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524997 | OVR T1-T2 3N 12.5-275s P QS (*) | 2CTB815710R1900 | 0.60 |
| 3+1 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524928 | OVR T1-T2 3N 12.5-275s P TS QS (*) | 2CTB815710R0700 | 0.60 |
| 3+1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525161 | OVR T1-T2 3N 12.5-440s P QS (*) | 2CTB815710R4800 | 1.05 |
| 3+1 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525093 | OVR T1-T2 3N 12.5-440s P TS QS (*) | 2CTB815710R3600 | 1.05 |
| 4 | 12.5 | 80 | - | 1,3 | 230 | 275 | 525017 | OVR T1-T2 4L 12.5-275s P QS (*) | 2CTB815710R2300 | 0.60 |
| 4 | 12.5 | 80 | - | 1,3 | 230 | 275 | 524942 | OVR T1-T2 4L 12.5-275s P TS QS (*) | 2CTB815710R1100 | 0.60 |
| 4 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525185 | OVR T1-T2 4L 12.5-440s P QS (*) | 2CTB815710R5200 | 1.20 |
| 4 | 12.5 | 80 | - | 1,3 | 400 | 440 | 525116 | OVR T1-T2 4L 12.5-440s P TS QS (*) | 2CTB815710R4000 | 1.20 |
| 3+1 | 15 | 60 | 7 | 1.7 | 230 | 255 | 514141 | OVR T1+2 3N 15-255-7 | 2CTB815101R9000 | 0.84 |
| 1+1 | 25 | 60 | 15 | 1.5 | 230 | 255 | 513519 | OVR T1+2 1N 25-255 TS | 2CTB815101R4400 | 0.54 |
| 3+1 | 25 | 60 | 15 | 1.5 | 230 | 255 | 513526 | OVR T1+2 3N 25-255 TS | 2CTB815101R4500 | 1.07 |
| 4 | 25 | 60 | 15 | 1.5 | 230 | 255 | 513434 | OVR T1+2 4L 25-255 TS | 2CTB815101R4200 | 1.07 |

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# Protection and safety
## OVR Type 2 surge protective devices Single pole 57 V networks




OVR T2 20-75 P

5

| Technical features | | | | | | |
|---|---|---|---|---|---|---|
| Types | | | OVR T2 20-75 P | – | OVR T2 2 20-75 P | – |
| | with auxiliary contact (TS) | | – | OVR T2 20-75 P TS | – | OVR T2 2 20-75 P TS |
| Technology | | | Varistor | Varistor | Varistor | Varistor |
| **Electrical features** | | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | | |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 1 | 1 | 2 | 2 |
| Types of networks | | | TNC / TNS / TT | TNC / TNS / TT | TNC / TNS / TT | TNC / TNS / TT |
| Type of current | | | AC - DC | AC - DC | AC - DC | AC - DC |
| Nominal AC voltage Un | | [V] | 57 | 57 | 57 | 57 |
| Max. cont. operating AC voltage Uc | | [V] | 75 | 75 | 75 | 75 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 20 | 20 | 20 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 5 | 5 | 5 |
| Voltage protection level Up at In | | [kV] | 0.30 | 0.30 | 0.30 | 0.30 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.25 | 0.25 | 0.25 | 0.25 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 75 / - | 75 / - | 75 / - | 75 / - |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | 25 | 25 | 50 | 50 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 16 | ≤ 16 | ≤ 16 | ≤ 16 |
| | Circuit breaker (B or C curve) | [A] | ≤ 16 | ≤ 16 | ≤ 16 | ≤ 16 |
| Pluggable cartridge | | | Yes | Yes | Yes | Yes |
| Integrated thermal disconnector | | | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | No | No | No |
| Auxiliary contact | | | No | Yes | No | Yes |
| **Installation** | | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…25 | 2.5…25 | 2.5…25 | 2.5…25 |
| | Stranded wire | [mm²] | 2.5…16 | 2.5…16 | 2.5…16 | 2.5…16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | | | |
| Contact complement | | | – | 1 NO - 1 NC | – | 1 NO - 1 NC |
| Minimum load | | | – | 12 V DC - 10 mA | – | 12 V DC - 10 mA |
| Maximum load | | | – | 250 V AC - 1 A | – | 250 V AC - 1 A |
| Connection cross-section | | [mm²] | – | 1.5 | – | 1.5 |
| **Miscellaneous characteristics** | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 88 x 17.8 x 64.8 | – | 88 x 35.6 x 64.8 | – |
| | | [inches] | 3.46 x 0.70 x 2.55 | – | 3.46 x 1.40 x 2.55 | – |
| with auxiliary contact (TS) | height x width x depth | [mm] | – | 96 x 17.8 x 64.8 | – | 96 x 35.6 x 64.8 |
| | | [inches] | – | 3.78 x 0.70 x 2.55 | – | 3.78 x 1.40 x 2.55 |
| **Replacement Cartridges** | | | | | | |
| Phase Product ID | | | OVR T2 20-75 C 2CT-B803854R1400 | OVR T2 20-75 C 2CT-B803854R1400 | OVR T2 20-75 C 2CT-B803854R1400 | OVR T2 20-75 C 2CT-B803854R1400 |

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 pluggable - Uc 75 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 5 | 0.3 | 57 | 75 | 518446 | OVR T2 20-75 P | 2CTB803851R2800 | | 0.12 |
| 1 | 20 | 5 | 0.3 | 57 | 75 | 518453 | OVR T2 20-75 P TS | 2CTB803851R2700 | | 0.12 |
| 2 | 20 | 5 | 0.3 | 57 | 75 | 518484 | OVR T2 2 20-75 P | 2CTB803852R1700 | | 0.23 |
| 2 | 20 | 5 | 0.3 | 57 | 75 | 518477 | OVR T2 2 20-75 P TS | 2CTB803852R1600 | | 0.23 |



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# Protection and safety

## OVR Type 2 surge protective devices Single pole 120 V and 230 V networks non-pluggable




OVR T2 20-150

5

| Technical features | | | | | | |
|---|---|---|---|---|---|---|
| Types | | | OVR T2 20-150 | OVR T2 40-150 | OVR T2 20-275 | OVR T2 40-275 |
| | with auxiliary contact (TS) | | – | – | – | – |
| Technology | | | Varistor | Varistor | Varistor | Varistor |
| **Electrical features** | | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | | |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 1 | 1 | 1 | 1 |
| Types of networks | | | TNC / TNS / TT | TNC / TNS / TT | TNC / TNS / TT | TNC / TNS / TT |
| Type of current | | | AC | AC | AC | AC |
| Nominal AC voltage Un | | [V] | 120 / 240 | 120 / 240 | 230 / 400 | 230 / 400 |
| Max. cont. operating AC voltage Uc | | [V] | 150 | 150 | 275 | 275 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 40 | 20 | 40 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 20 | 5 | 20 |
| Voltage protection level Up at In | | [kV] | 0.6 | 0.9 | 1 | 1.4 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.6 | 0.6 | 0.9 | 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 175 / - | 175 / - | 337 / - | 337 / - |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | 25 | 25 | 25 | 25 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 50 | ≤ 50 | ≤ 50 | ≤ 50 |
| | Circuit breaker (B or C curve) | [A] | ≤ 50 | ≤ 50 | ≤ 50 | ≤ 50 |
| Pluggable cartridge | | | No | No | No | No |
| Integrated thermal disconnector | | | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | No | No | No |
| Auxiliary contact | | | No | No | No | No |
| **Installation** | | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…25 | 2.5…25 | 2.5…25 | 2.5…25 |
| | Stranded wire | [mm²] | 2.5…16 | 2.5…16 | 2.5…16 | 2.5…16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.2 | 12.2 | 12.2 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | | | |
| Contact complement | | | – | – | – | – |
| Minimum load | | | – | – | – | – |
| Maximum load | | | – | – | – | – |
| Connection cross-section | | [mm²] | – | – | – | – |
| **Miscellaneous characteristics** | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 17.8 x 64.8 | 85 x 17.8 x 64.8 | 85 x 17.8 x 64.8 | 85 x 17.8 x 64.8 |
| | | [inches] | 3.35 x 0.70 x 2.55 | 3.35 x 0.70 x 2.55 | 3.35 x 0.70 x 2.55 | 3.35 x 0.70 x 2.55 |

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 non-pluggable**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 5 | 0.6 | 120/240 | 150 | 518057 | OVR T2 20-150 | 2CTB804200R0700 | | 0.12 |
| 1 | 40 | 20 | 0.9 | 120/240 | 150 | 518064 | OVR T2 40-150 | 2CTB804201R0700 | | 0.12 |
| 1 | 20 | 5 | 1 | 230/400 | 275 | 514882 | OVR T2 20-275 | 2CTB804200R0100 | | 0.12 |
| 1 | 40 | 20 | 1.4 | 230/400 | 275 | 514103 | OVR T2 40-275 | 2CTB804201R0100 | | 0.12 |
| 1 | 20 | 5 | 1.0 | 120/240 | 150 | 519405 | OVR T2 20-150 (x20) | 2CTB804200R1700 | | 0.12 |
| 1 | 40 | 20 | 1.4 | 120/240 | 150 | 519436 | OVR T2 40-150 (x20) | 2CTB804201R1700 | | 0.12 |
| 1 | 20 | 5 | 1.0 | 230/400 | 275 | 519382 | OVR T2 20-275 (x20) | 2CTB804200R1100 | | 0.12 |
| 1 | 40 | 20 | 1.4 | 230/400 | 275 | 519412 | OVR T2 40-275 (x20) | 2CTB804201R1100 | | 0.12 |



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# Protection and safety
## OVR Type 2 surge protective devices Single pole 230 V networks, pluggable version



| Technical features | | | | |
|---|---|---|---|---|
| Types | | | **OVR T2 40-275 P QS** | **OVR T2 40-275s P QS** |
| with auxiliary contact (TS) | | | **OVR T2 40-275 P TS QS** | **OVR T2 40-275s P TS QS** |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2 / II | T2 / II |
| Protected lines | | | 1 | 1 |
| System network | | | TNC - TNS - TT(P-N) | TNC - TNS - TT(P-N) |
| Type of current | | | AC 45-65Hz | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 20% |
| Nominal system voltage Un | | [V] | 230 | 230 |
| Max. cont. operating voltage Uc | | [V] | 275 | 275 |
| Nominal dc voltage Un dc L-PE | | [V dc] | 320 | 320 |
| Max. dc. cont. operating voltage Ucdc L-PE | | [V dc] | 355 | 355 |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 40 |
| Maximum impulse current Iimp (10/350) | | [kA] | 2 | 2 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,25 /- /- | 1,3 /- /1,3 |
| Voltage protection level Ures at 3kA (L-N) | | [kV] | 0.8 | 0.5 |
| Voltage protection level Ures at 5kA (L-N) | | [kV] | 0.85 | 0.7 |
| Voltage protection level Ures at 10kA (L-N) | | [kV] | 1 | 0.9 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / - | 337 / - |
| Response time | | [ns] | ≤ 25 | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 |
| Backup protection maximum | fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 |
| rating | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | Yes |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP 20 | IP 20 |
| Fire resistance according to UL 94 | | | V0 | V0 |
| **Dimensions** | | | | |
| height x width x depth | | [mm] | 85x17.8x64.8 | 85x17.8x69.4 |
| | | [inches] | 3.35x0.70x2.55 | 3.35x0.70x2.73 |
| **With Auxiliary Contact (TS)** | | | | |
| height x width x depth | | [mm] | 96x17.8x64.8 | 96x17.8x69.4 |
| | | [inches] | 3.78x0.70x2.55 | 3.78x0.70x2.73 |
| **Replacement Cartridges** | | | | |
| Phase Product ID | | | OVR T2 40-275 C QS<br>2CTB803876R1000 | OVR T2 40-275s C QS<br>2CTB815704R2600 |
| Neutral Product ID | | | - | - |

| | - | OVR T2 80-275s P QS | OVR T2 N 80-275 P QS | OVR T2 N 80-350 P QS | OVR T2 N 80-275s P QS |
|---|---|---|---|---|---|
| | OVR T2 40-350 P TS QS | OVR T2 80-275s P TS QS | | | |
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T2 / II | T2 / II | T2 / II | T2 / II | T2 |
| | 1 | 1 | 1 | 1 | 1 |
| | TNC - TNS - TT(P-N) | TT (L-N) - TNS - TNC | TT (N-PE) | TT (N-PE) | TT(N-PE) |
| | AC 45-65Hz | a.c. 45-65Hz | AC 45-65Hz | AC 45-65Hz | a.c. 45-65Hz |
| | ± 50% | ± 20% | ± 20% | ± 50% | |
| | 230 | 230 | 230 | 230 | 230 |
| | 350 | 275 | 275 | 350 | 275 |
| | 375 | 320 | - | - | - |
| | 415 | 355 | - | - | - |
| | 40 | 80 | 80 | 80 | 80 |
| | 2 | 6.25 | 2 | 2 | 6.25 |
| | 20 | 20 | 30 | 30 | 30 |
| | 1,5 /- /- | 1,3 /- /1,3 | - /- /1,4 | - /- /1,4 | 1,3 /- /1,3 |
| | 1 | 0.5 | - | - | - |
| | 1.05 | 0.7 | - | - | - |
| | 1.2 | 0.9 | - | - | - |
| | 455 / - | 337/ | -/1200 | -/1200 | -/1200 |
| | ≤ 25 | ≤ 25 | < 25 | < 25 | < 25 |
| | 100 | 100 | - | - | 100 |
| | ≤ 125 | ≤ 160 | ≤ 125 | ≤ 125 | ≤160 |
| | ≤ 125 | ≤ 125 | ≤ 125 | ≤ 125 | ≤125 |
| | Yes | Yes | Yes | Yes | Yes |
| | Yes | Yes | - | - | - |
| | Yes | Yes | No | No | No |
| | No | Yes | No | No | No |
| | Yes | Yes (TS option) | No | No | No |
| | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 50 |
| | 2.5 … 16 | 2.5 … 35 | 2.5 … 16 | 2.5 … 16 | 2.5 … 35 |
| | 12.5 | 12.5 | 12.5 | 12.5 | 15 |
| | 2.8 | 2.8 | 2.8 | 2.8 | 3.5 |
| | 1 NO- 1 NC | 1 NO- 1 NC | - | - | 1 NO - 1 NC |
| | 12DC - 10mA | 12DC - 10mA | - | - | 12 V DC - 10 mA |
| | 250VAC - 1A | 250VAC - 1A | - | - | 250 VAC - 1 A |
| | 1.5 | 1.5 | - | - | 1.5 |
| | -40 to +80 | - 40 to +80 | - 40 to +80 | - 40 to +80 | -40 to +80 |
| | IP 20 | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| | V0 | V-0 | V-0 | V-0 | V0 |
| | | 85x17.8x69.4 | 85x17.8x64.8 | 85x17.8x64.8 | |
| | | 3.35x0.70x2.73 | 3.35x0.70x2.55 | 3.35x0.70x2.55 | |
| | 96x17.8x64.8 | 96x17.8x69.4 | | | 96 x 17.8 x 69.4 |
| | 3.78x0.70x2.55 | 3.78x0.70x2.73 | | | 3.78 x 0.7 x 2.73 |
| | OVR T2 40-350 C QS<br>2CTB803886R1000 | OVR T2 80-275s C QS<br>2CTB815708R2600 | - | - | |
| | - | - | OVR T2 N 80-275 C QS<br>2CTB803876R0000 | OVR T2 N 80-350 C QS<br>2CTB803886R0000 | OVR T2 N 80-275s C QS<br>2CTB815708R2800 |

# Protection and safety
## OVR Type 2 surge protective devices Single pole 230 V networks




OVR T2 40-275 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 pluggable**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 20 | 1,25 | 230 | 275 | 519580 | OVR T2 40-275 P QS | 2CTB803871R2300 | | 0.12 |
| 1 | 40 | 20 | 1,25 | 230 | 275 | 519597 | OVR T2 40-275 P TS QS | 2CTB803871R1700 | | 0.12 |
| 1 | 40 | 20 | 1,3 | 230 | 275 | 525291 | OVR T2 40-275s P QS (*) | 2CTB815704R1200 | | 0.15 |
| 1 | 40 | 20 | 1,3 | 230 | 275 | 525222 | OVR T2 40-275s P TS QS (*) | 2CTB815704R0000 | | 0.15 |
| 1 | 40 | 20 | 1,5 | 230 | 350 | 520562 | OVR T2 40-350 P TS QS | 2CTB803881R1700 | | 0.12 |
| 1 | 80 | 20 | 1,3 | 230 | 275 | 525475 | OVR T2 80-275s P QS (*) | 2CTB815708R1200 | | 0.15 |
| 1 | 80 | 20 | 1,3 | 230 | 275 | 525406 | OVR T2 80-275s P TS QS (*) | 2CTB815708R0000 | | 0.15 |
| 1 | 80 | 30 | 1,4 | 230 | 275 | 519658 | OVR T2 N 80-350 P QS | 2CTB803983R1900 | | 0.12 |
| 1 | 80 | 30 | 1,4 | 230 | 275 | 519641 | OVR T2 N 80-275 P QS | 2CTB803973R1900 | | 0.12 |
| 1 | 80 | 30 | 1,3 | 230 | 275 | 525536 | OVR T2 N 80-275s P QS (*) | 2CTB815708R2500 | | 0.12 |

(*) Product available on Summer 2015

**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Reliable low voltage solutions for rail application.
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ABB is a market leader in supplying reliable products and services to the rolling stock manufacturers and for the rail infrastructure. With a truly global organization, we are committed to local competence and local service. Rail applications require the highest possible safety level. Therefore special regulations and standards are in place. Our products are designed to provide the safety level required and comply with the standards in this industry. For more information please visit **www.abb.com/lowvoltage**





# Protection and safety
## OVR Type 2 surge protective devices Single pole 400 V networks

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | | **OVR T2 40-440 P QS** | | |
| with auxiliary contact (TS) | | | **OVR T2 40-440 P TS QS** | **OVR T2 40-440s P TS QS** | **OVR T2 80-440s P TS QS** |
| **Electrical features** | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 1 | 1 | 1 |
| System network | | | TNC - TNS - TT(P-N) | TT (L-N) - TNS - TNC | TT (L-N) - TNS - TNC |
| Type of current | | | AC 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| Voltage regulation of the system network | | | ± 10% | ± 10% | ± 10% |
| Nominal system voltage Un | | [V] | 400 | 400 | 400 |
| Max. cont. operating voltage Uc | | [V] | 440 | 440 | 440 |
| Nominal dc voltage Un dc L-PE | | [V dc] | 495 | 495 | 495 |
| Max. dc. cont. operating voltage Ucdc L-PE | | [V dc] | 545 | 545 | 545 |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 40 | 80 |
| Maximum impulse current Iimp (10/350) | | [kA] | 2 | 2 | 6.25 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 | 20 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,8 /- /- | 1,3 /- /1,3 | 1,3 /- /1,3 |
| Voltage protection level Ures at 3kA (L-N) | | [kV] | 1.25 | 0.8 | 0.8 |
| Voltage protection level Ures at 5kA (L-N) | | [kV] | 1.35 | 1.2 | 1.2 |
| Voltage protection level Ures at 10kA (L-N) | | [kV] | 1.55 | 1.5 | - |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 581 / - | 581 / - | 581/- |
| Uoc | | [kV] | - | - | - |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 | ≤ 160 | ≤ 160 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes |
| Safety reserve | | | No | Yes | Yes |
| Auxiliary contact | | | Yes (TS option) | Yes | Yes |
| **Installation** | | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 35 | 2.5 … 35 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |

| | OVR T2 40-600 P QS<br>OVR T2 40-600 P TS QS | OVR T2 N 80-440 P QS | OVR T2 N 80-440s P QS | OVR T2 120-440s P TS |
|---|---|---|---|---|
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T2 / II | T2 / II | T2 | T2 |
| | 1 | 1 | 1 | 1 |
| | TNC - TNS - TT(P-N) | TT (N-PE) | TT(N-PE) | TNC/TNS/TT |
| | AC 45-65Hz | AC 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| | ± 50% | ± 10% | | |
| | 400 | 400 | 400 | 400 |
| | 600 | 440 | 440 | 440 |
| | 650 | - | - | |
| | 715 | - | - | |
| | 40 | 80 | 80 | 120 |
| | 2 | 2 | 6.25 | - |
| | 20 | 30 | 30 | 60 |
| | 2.3 / - / - | - / - / 1.4 | - / - / 1,8 | 2.5 |
| | 1.6 | - | - | 1.1 |
| | 1.7 | - | - | - |
| | 1.9 | - | - | - |
| | 792 / - | -/1200 | -/1200 | 440/- |
| | - | - | | |
| | ≤ 25 | < 25 | < 25 | < 25 |
| | 100 | - | 100 | 50 |
| | ≤ 125 | - | - | ≤50 |
| | ≤ 125 | - | - | ≤50 |
| | Yes | Yes | Yes | Yes |
| | Yes | No | No | No |
| | Yes | No | No | Yes |
| | No | No | No | Yes |
| | Yes | No | No | Yes |
| | 2.5 … 25 | 2.5 … 25 | 2.5 … 50 | 2.5 … 50 |
| | 2.5 … 16 | 2.5 … 16 | 2.5 … 35 | 2.5 … 35 |
| | 12.5 | 12.5 | 15 | 15 |
| | 2.8 | 2.8 | 3.5 | 3.5 |
| | 1 NO- 1 NC | | 1 NO - 1 NC | 1 NO - 1 NC |
| | 12DC - 10mA | | 12 V DC - 10 mA | 12 V DC - 10 mA |
| | 250VAC - 1A | | 250 VAC - 1 A | 250 VAC - 1 A |

# Protection and safety
## OVR Type 2 surge protective devices Single pole 400 V networks

| Technical features | | | | |
|---|---|---|---|---|
| Types | | OVR T2 40-440 P QS | | |
| with auxiliary contact (TS) | | OVR T2 40-440 P TS QS | OVR T2 40-440s P TS QS | OVR T2 80-440s P TS QS |
| Connection cross-section | [mm²] | 1.5 | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | [°C] | -40 to +80 | - 40 to +80 | - 40 to +80 |
| Degree of protection | | IP 20 | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | V0 | V-0 | V-0 |
| **Dimensions of packing** | | | | |
| height x width x depth | [mm] | 85x17.8x64.8 | | |
| | [inches] | 3.35x0.70x2.55 | | |
| **With Auxiliary Contact (TS)** | | | | |
| height x width x depth | [mm] | 96x17.8x64.8 | 96x17.8x69.4 | 96x17.8x69.4 |
| | [inches] | 3.78x0.70x2.55 | 3.78x0.7x2.73 | 3.78x0.7x2.73 |
| **Replacement Cartridges** | | | | |
| Phase Product ID | | OVR T2 40-440 C<br>2CTB803876R0400 | OVR T2 40-440s C QS<br>2CTB815704R5500 | OVR T2 80-440s C QS<br>2CTB815708R5500 |
| Neutral Product ID | | - | - | - |

5

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 non-pluggable - Uc 440 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 5 | 1.3 | 230/400 | 440 | 518071 | OVR T2 20-440 | 2CTB804200R0200 | | 0.12 |
| 1 | 40 | 20 | 1.9 | 230/400 | 440 | 518088 | OVR T2 40-440 | 2CTB804201R0200 | | 0.12 |
| 1 | 20 | 5 | 1.3 | 230/400 | 440 | 519399 | OVR T2 20-440 (x20) | 2CTB804200R1200 | | 0.12 |
| 1 | 40 | 20 | 1.9 | 230/400 | 440 | 519429 | OVR T2 40-440 (x20) | 2CTB804201R1200 | | 0.12 |

**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
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| | | | | |
|---|---|---|---|---|
| | **OVR T2 40-600 P QS** | **OVR T2 N 80-440 P QS** | **OVR T2 N 80-440s P QS** | |
| | **OVR T2 40-600 P TS QS** | | | **OVR T2 120-440s P TS** |
| | 1.5 | | 1.5 | 1.5 |
| | | | | |
| | -40 to +80 | - 40 to +80 | -40 to +80 | -40 to +80 |
| | IP 20 | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| | V0 | V-0 | V0 | V0 |
| | | | | |
| | 85x17.8x64.8 | 85x17.8x64.8 | 85 x 17.8 x 64.8 | |
| | 3.35x0.70x2.55 | 3.35x0.70x2.55 | 3.35 x 0.70 x 2.55 | |
| | | | | |
| | 96x17.8x64.8 | | | 96 x 35.6 x 64.8 |
| | 3.78x0.70x2.55 | | | 3.78 x 1.4 x 2.55 |
| | | | | |
| | OVR T2 40-600 C QS<br>2CTB803886R0400 | - | | OVR T2 70 440s C<br>2CTB803854R0100 |
| | - | OVR T2 N 80-440 C QS<br>2CTB803886R0100 | OVR T2 N 80-440s C QS<br>2CTB815708R2800 | |

**Type 2 pluggable**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 20 | 1,8 | 400 | 440 | 519627 | OVR T2 40-440 P QS | 2CTB803871R1200 | | 0.12 |
| 1 | 40 | 20 | 1,8 | 400 | 440 | 519634 | OVR T2 40-440 P TS QS | 2CTB803871R0500 | | 0.12 |
| 1 | 40 | 20 | 1,3 | 400 | 440 | 525369 | OVR T2 40-440s P TS QS (*) | 2CTB815704R2900 | | 0.30 |
| 1 | 80 | 30 | 1,3 | 400 | 440 | 525567 | OVR T2 80-440s P TS QS (*) | 2CTB815708R2900 | | 0.30 |
| 1 | 40 | 20 | 2,3 | 400 | 600 | 520616 | OVR T2 40-600 P QS | 2CTB803881R1200 | | 0.12 |
| 1 | 40 | 20 | 2,3 | 400 | 600 | 520579 | OVR T2 40-600 P TS QS | 2CTB803881R0500 | | 0.12 |
| 1 | 80 | 30 | 1,4 | 400 | 600 | 519665 | OVR T2 N 80-440 P QS | 2CTB803973R2000 | | 0.12 |
| 1 | 80 | 30 | 1,3 | 400 | 440 | 525642 | OVR T2 N 80-440s P QS (*) | 2CTB815708R5400 | | 0.12 |
| 1 | 120 | 60 | 2,5 | 400 | 440 | 517067 | OVR T2 120-440s P | 2CTB803951R1300 | | 0.25 |

# Protection and safety
## OVR Type 2 surge protective devices TNC 230 V networks

| Technical features | | | | |
|---|---|---|---|---|
| Types | | | **OVR T2 3L 20-275** | **OVR T2 3L 40-275** |
| with auxiliary contact (TS) | | | | |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T1+2/I - II | T1+2/I - II |
| Protected lines | | | 3 | 3 |
| System network | | | TNC | TNC |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 20% |
| Nominal system voltage Un (L-PEN / L-L) | | [V] | 230/400 | 230/400 |
| Max. cont. operating voltage Uc | | [V] | 275 | 275 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | [V dc] | - | - |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | [V dc] | - | - |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 20 |
| Maximum impulse current Iimp (10/350) | | [kA] | - | - |
| Nominal discharge current In (8/20) | | [kA] | 5 | 20 |
| Voltage protection level Up at In | | [kV] | 1 | 1.4 |
| Voltage protection level Ures at 3kA | | [kV] | 0.9 | 0.9 |
| Voltage protection level Ures at 5kA | | [kV] | - | - |
| Voltage protection level Ures at 10kA | | [kV] | - | - |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 334/- | 334/- |
| Uoc | | [kV] | - | - |
| Response time | | [ns] | ≤50 | ≤50 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 |
| Backup protection | fuse (gG - gL) | [A] | ≤50 | ≤50 |
| maximum rating | circuit breaker (B or C curve) | [A] | ≤50 | ≤50 |
| Pluggable cartridge | | | No | No |
| Integrated QuickSafe® technology | | | No | No |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | No |
| Auxiliary contact | | | No | No |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | - | - |
| Min. load | | | - | - |
| Max. load | | | - | - |
| Connection cross-section | | [mm²] | - | - |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | | V0 | V0 |

| | OVR T2 3L 40-275 P QS<br>OVR T2 3L 40-275 P TS QS | OVR T2 3L 40-275s P QS<br>OVR T2 3L 40-275s P TS QS | OVR T2 3L 80-275s P QS<br>OVR T2 3L 80-275s P TS QS | OVR T2 3L 40-350 P QS<br>OVR T2 3L 40-350 P TS QS |
|---|---|---|---|---|
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T2 / II | T2 / II | T2 / II | T2 / II |
| | 3 | 3 | 3 | 3 |
| | TNC | TNC | TNC | TNC |
| | AC 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz | AC 45-65Hz |
| | ± 20% | ± 20% | ± 20% | ± 50% |
| | 230/ 400 | 230/ 400 | 230/ 400 | 230/ 400 |
| | 275 | 275 | 275 | 350 |
| | 320/640 | 320/640 | 320/640 | 375/750 |
| | 355/710 | 355/710 | 355/710 | 415/830 |
| | 40 | 40 | 80 | 40 |
| | 2 | 2 | 6.25 | 2 |
| | 20 | 20 | 20 | 20 |
| | 1,25 /- /- | 1,3 /- /1,3 | 1,3 /- /1,3 | 1,5 /- /- |
| | 0.8 | 0.5 | 0.5 | 1.0 |
| | 0.85 | 0.7 | 0.7 | 1.05 |
| | 1.0 | 0.9 | 0.9 | 1.2 |
| | 337 / - | 337 / - | 337/- | 455 / - |
| | - | - | - | - |
| | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 |
| | 100 | 100 | 100 | 100 |
| | ≤ 125 | ≤ 160 | ≤ 160 | ≤ 125 |
| | ≤ 125 | ≤ 125 | ≤ 125 | ≤ 125 |
| | Yes | Yes | Yes | Yes |
| | Yes | Yes | Yes | Yes |
| | Yes | Yes | Yes | Yes |
| | No | Yes | Yes | No |
| | Yes (TS option) | Yes (TS option) | Yes (TS option) | Yes (TS option) |
| | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 |
| | 2.5 … 16 | 2.5 … 35 | 2.5 … 35 | 2.5 … 16 |
| | 12.5 | 12.5 | 12.5 | 12.5 |
| | 2.8 | 2.8 | 2.8 | 2.8 |
| | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |
| | 1.5 | 1.5 | 1.5 | 1.5 |
| | -40 to +80 | - 40 to +80 | - 40 to +80 | -40 to +80 |
| | IP 20 | IP 20 - Indoor | IP 20 - Indoor | IP 20 |
| | V0 | V-0 | V-0 | V0 |

# OVR Type 2 surge protective devices TNC 230 V networks

| Technical features | | | | |
|---|---|---|---|---|
| Types | | OVR T2 3L 20-275 | OVR T2 3L 40-275 | |
| with auxiliary contact (TS) | | | | |
| **Dimensions** | | | | |
| height x width x depth | [mm] | 85x53.4x64.8 | 85x53.4x64.8 | |
| | [inches] | 3.35x2.1x2.55 | 3.35x2.1x2.55 | |
| **With Auxiliary Contact (TS)** | | | | |
| height x width x depth | [mm] | | | |
| | [inches] | | | |
| **Replacement Cartridges** | | | | |
| Phase Product ID | | | | |
| Neutral Product ID | | | | |






OVR T2 3L 40-275 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 non-pluggable - Uc 275 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 20 | 5 | 1.0 | 230/400 | 275 | 515957 | OVR T2 3L 20-275 | 2CTB804600R0400 | | 0.35 |
| 3 | 40 | 20 | 1.4 | 230/400 | 275 | 515964 | OVR T2 3L 40-275 | 2CTB804601R0400 | | 0.35 |
| 3 | 20 | 5 | 1.0 | 230/400 | 275 | 519443 | OVR T2 3L 20-275 (x6) | 2CTB804600R1400 | | 0.35 |
| 3 | 40 | 20 | 1.4 | 230/400 | 275 | 515467 | OVR T2 3L 40-275 (x6) | 2CTB80460110400 | | 0.35 |

**Where to find more:**
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| | OVR T2 3L 40-275 P QS<br>OVR T2 3L 40-275 P TS QS | OVR T2 3L 40-275s P QS<br>OVR T2 3L 40-275s P TS QS | OVR T2 3L 80-275s P QS<br>OVR T2 3L 80-275s P TS QS | OVR T2 3L 40-350 P QS<br>OVR T2 3L 40-350 P TS QS |
|---|---|---|---|---|
| | 85x53.4x64.8<br>3.35x2.10x2.55 | 85x53.4x69.4<br>3.35x2.10x2.73 | 85x53.4x69.4<br>3.35x2.10x2.73 | 85x53.4x64.8<br>3.35x2.10x2.55 |
| | 96x53.4x64.8<br>3.78x2.10x2.55 | 96x53.4x69.4<br>3.78x2.10x2.73 | 96x53.4x69.4<br>3.78x2.10x2.73 | 96x53.4x64.8<br>3.78x2.10x2.55 |
| | OVR T2 40-275 C QS<br>2CTB803876R1000<br>- | OVR T2 40-275s C QS<br>2CTB815704R2600<br>- | OVR T2 80-275s C QS<br>2CTB8157084R2600<br>- | OVR T2 40-350 C QS<br>2CTB803886R1000<br>- |



**Type 2 pluggable**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 40 | 20 | 1,25 | 230 | 275 | 519825 | OVR T2 3L 40-275 P QS | 2CTB803873R2400 | | 0.36 |
| 3 | 40 | 20 | 1,25 | 230 | 275 | 519832 | OVR T2 3L 40-275 P TS QS | 2CTB803873R2500 | | 0.36 |
| 3 | 40 | 20 | 1,3 | 230 | 275 | 525253 | OVR T2 3L 40-275s P TS QS (*) | 2CTB815704R0600 | | 0.45 |
| 3 | 40 | 20 | 1,3 | 230 | 275 | 525314 | OVR T2 3L 40-275s P QS (*) | 2CTB815704R1800 | | 0.45 |
| 3 | 80 | 30 | 1,3 | 230 | 275 | 525437 | OVR T2 3L 80-275s P TS QS (*) | 2CTB815708R0600 | | 0.45 |
| 3 | 80 | 30 | 1,3 | 230 | 275 | 525499 | OVR T2 3L 80-275s P QS (*) | 2CTB815708R1800 | | 0.45 |
| 3 | 40 | 20 | 1,5 | 230 | 350 | 519849 | OVR T2 3L 40-350 P QS | 2CTB803883R2400 | | 0.36 |
| 3 | 40 | 20 | 1,5 | 230 | 350 | 519856 | OVR T2 3L 40-350 P TS QS | 2CTB803883R2500 | | 0.36 |

# Protection and safety
## OVR Type 2 surge protective devices TNC 400 V networks

| Technical features | | | | | | |
|---|---|---|---|---|---|---|
| Types | | | OVR T2 3L 40-440 P QS | OVR T2 3L 80-440s P QS | OVR T2 3L 40 400/690 P | |
| with auxiliary contact (TS) | | | OVR T2 3L 40-440 P TS QS | OVR T2 3L 80-440s P TS QS | OVR T2 3L 40 400/690 P TS | OVR T2 3L 40-600 P TS QS |
| **Electrical features** | | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 3 | 3 | 3 | 3 |
| System network | | | TNC | TNC | TNC / IT | TNC |
| Type of current | | | a.c. 45-65Hz | a.c. 45-65Hz | A.C 47-63 Hz | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 10% | ± 10% | ± 10% | ± 50% |
| Nominal system voltage Un (L-PEN / L-L) | | [V] | 400/690 | 400/690 | 400/690 | 400 / 690 |
| Max. cont. operating voltage Uc | | [V] | 440 | 440 | 760 | 600 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | [V dc] | 495/990 | 495/990 | - | 650/990 |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | [V dc] | 545/1090 | 545/1090 | - | 715/1090 |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 80 | 40 | 40 |
| Maximum impulse current Iimp (10/350) | | [kA] | 2 | 6.25 | - | 2 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 | 15 | 20 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1,8 /- /- | 1,3 /- /1,3 | 2.9 | 2,3 /- /- |
| Voltage protection level Ures at 3kA | | [kV] | 1.25 | 1.25 | 2.1 | 1.6 |
| Voltage protection level Ures at 5kA | | [kV] | 1.35 | 1.35 | 2.2 | 1.7 |
| Voltage protection level Ures at 10kA | | [kV] | 1.55 | 1.55 | 2.3 | 1.9 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 581/ | 581/- | 910/- | 792 / - |
| Response time | | [ns] | < 25 | < 25 | < 25 | < 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 | ≤ 160 | ≤ 50 | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 126 | ≤ 50 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes | No | Yes |
| State indicator | | | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | Yes | No | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) | Yes (TS option) | Yes |
| **Installation** | | | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 35 | 2.5 … 35 | 2.5 … 36 | 2.5 … 36 |
| | stranded wire | [mm²] | 12.5 | 12.5 | 12.5 | 12.5 |
| Stripping length (L, N, PE) | | [mm] | 2.8 | 2.8 | 2.8 | 2.8 |
| Tightening torque (L, N, PE) | | [Nm] | | | | |
| Auxiliary contact (TS) | | | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| Contacts information | | | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| Min. load | | | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |
| Max. load | | | 1.5 | 1.5 | 1.5 | 1.5 |
| Connection cross-section | | [mm²] | | | | |

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | OVR T2 3L 40-440 P QS | OVR T2 3L 80-440s P QS | OVR T2 3L 40 400/690 P | |
| with auxiliary contact (TS) | | OVR T2 3L 40-440 P TS QS | OVR T2 3L 80-440s P TS QS | OVR T2 3L 40 400/690 P TS | OVR T2 3L 40-600 P TS QS |
| **Miscellanous characteristics** | | | | | |
| Stocking and operating temperature | °C | - 40 to +80 | - 40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | V-0 | V-0 | V-0 | V-0 |
| **Dimensions** | | | | | |
| height x width x depth | mm | 85x53.4x64.8 | 85x53.4x69.4 | 85x53.4x64.8 | |
| | inches | 3.35x2.10x2.55 | 3.35x2x2.73 | 3.35x2.1x2.55 | |
| **With Auxiliary Contact (TS)** | | | | | |
| height x width x depth | mm | 96x53.4x64.8 | 96x53.4x69.4 | 96x53.4x64.8 | 96x53.4x64.8 |
| | inches | 3.78x2.10x2.55 | 3.78x2.1x2.73 | 3.78x2.1x2.55 | 3.78x2.10x2.55 |
| **Replacement Cartridges** | | | | | |
| Phase Product ID | | OVR T2 40-440 C QS 2CTB803876R0400 | OVR T2 80-440s C QS 2CTB815708R5500 | OVR T2 40 400/690 C 2CTB803854R1100 | OVR T2 40-600 C QS 2CTB803886R0400 |
| Neutral Product ID | | - | - | - | - |






**OVR T2 3L 40-440 P QS**

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 40 | 20 | 1,8 | 400 | 440 | 519.894 | OVR T2 3L 40-440 P QS | 2CTB803873R5100 | | 0.48 |
| 3 | 40 | 20 | 1,8 | 400 | 440 | 519.900 | OVR T2 3L 40-440 P TS QS | 2CTB803873R5300 | | 0.48 |
| 3 | 80 | 30 | 2,4 | 400 | 440 | 52559 8 | OVR T2 3L 80-440s P TS QS (*) | 2CTB815708R4000 | | 1.20 |
| 3 | 80 | 30 | 2,4 | 400 | 440 | 52563 5 | OVR T2 3L 80-440s P QS (*) | 2CTB815708R5200 | | 1.20 |
| 3 | 40 | 20 | 2,3 | 400 | 600 | 520.685 | OVR T2 3L 40-600 P TS QS | 2CTB803883R5300 | | 0.48 |
| 3 | 40 | 20 | 2.9 | 400 | 760 | 515629 | OVR T2 3L 40-400/690 P | 2CTB803853R4500 | | 0.48 |
| 3 | 40 | 20 | 2.9 | 400 | 760 | 515629 | OVR T2 3L 40-400/690 P TS | 2CTB803853R4600 | | 0.48 |

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For back-up protection:
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# OVR Type 2 surge protective devices TNS 230 V networks



| Technical features | | | | | | | |
|---|---|---|---|---|---|---|---|
| Types | | | OVR T2 4L 20-275 | OVR T2 4L 40-275 | OVR T2 4L 40-275 P QS | OVR T2 4L 40-275s P QS | OVR T2 4L 80-275s P QS |
| | with auxiliary contact (TS) | | – | – | OVR T2 4L 40-275 P TS QS | OVR T2 4L 40-275s P TS QS | OVR T2 4L 80-275s P TS QS |
| Technology | | | Varistor | Varistor | Varistor | | Varistor |
| **Electrical features** | | | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | | | |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 4 | 4 | 4 | 4 | 4 |
| Types of networks | | | TNS | TNS | TNS | TNS | TNS |
| Type of current | | | AC | AC | AC | AC | AC |
| Nominal voltage Un (L-N/L-L) | | [V] | 230 / 400 | 230 / 400 | 230 / 400 | 230/400 | 230 / 400 |
| Max. cont. operating AC voltage Uc | | [V] | 275 | 275 | 275 | 275 | 275 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | V dc | - | - | 320/640 | 320/640 | 320/640 |
| Max. dc. cont. operating voltage Ucdc L-PE / Ucdc L-L | | V dc | - | - | 355/710 | 355/710 | 355/710 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 40 | 40 | 40 | 80 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 20 | 20 | 20 | 20 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kA] | 1.0 | 1.4 | 1,25 /- /1,25 | 1,5 /- / | 1,8 /- / |
| Voltage protection level Up at 3 kA | | [kA] | 0.9 | 0.9 | 0.8 | 0.5 | 0.8 |
| TOV (Temporary over-voltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 334 / - | 334 / - | 334 / - | 337 | 334 / - |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 | ≤25 | ≤ 25 |
| Residual current IPE | | [µA] | 100 | 100 | 100 (200 for s option) | | 200 |
| Short-circuit withstand capability Isccr | | [kA] | 50 | 50 | 50 | 100 | 50 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 50 | ≤ 50 | ≤ 50 | ≤160 | ≤ 50 |
| | Circuit breaker (B or C curve) | [A] | ≤ 50 | ≤ 50 | ≤ 50 | ≤125 | ≤ 50 |
| Pluggable cartridge | | | No | No | Yes | Yes | Yes |
| Integrated thermal disconnector | | | Yes | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | No | No | Yes | Yes |
| Auxiliary contact | | | No | No | Yes (TS option) | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…25 | 2.5…25 | 2.5…25 | 2.5 … 25 | 2.5…25 |
| | Stranded wire | [mm²] | 2.5…16 | 2.5…16 | 2.5…16 | 2.5 … 16 | 2.5…16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | | | | |
| Contact complement | | | – | – | 1 NO - 1 NC | - | 1 NO - 1 NC |
| Minimum load | | | – | – | 12 V DC - 10 mA | - | 12 V DC - 10 mA |
| Maximum load | | | – | – | 250 V AC - 1 A | - | 250 V AC - 1 A |
| Connection cross-section | | [mm²] | – | – | 1.5 | - | 1.5 |
| **Miscellaneous characteristics** | | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 | IP 20 - Indoor | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 71.2 x 64.8 | 85 x 71.2 x 64.8 | 85 x 71.2 x 64.8 | 85 x 71.2 x 69.4 | 85 x 71.2 x 69.4 |
| | | [inches] | 3.35 x 2.80 x 2.55 | 3.35 x 2.80 x 2.55 | 3.35 x 2.80 x 2.55 | 3.35 x 2.8 x 2.73 | 3.35 x 2.80 x 2.73 |
| with auxiliary contact (TS) | height x width x depth | [mm] | – | – | 96 x 71.2 x 64.8 | 96 x 71.2 x 69.4 | 96 x 71.2 x 69.4 |
| | | [inches] | – | – | 3.78 x 2.80 x 2.55 | 3.78 x 2.8 x 2.73 | 3.78 x 2.80 x 2.73 |
| **Replacement Cartridges** | | | | | | | |
| Phase Product ID | | | - | - | OVR T2 40-275 C QS 2CTB803876R1000 | OVR T2 40-275s C QS 2CTB8157084R2600 | OVR T2 80-275s C QS 2CTB815708R2600 |
| Neutral Product ID | | | - | - | - | - | - |




OVR T2 4L 40-275 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 non-pluggable - Uc 275 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 20 | 5 | 1.0 | 230/400 | 275 | 515971 | OVR T2 4L 20-275 | 2CTB804600R0500 | | 0.45 |
| 4 | 40 | 20 | 1.4 | 230/400 | 275 | 515988 | OVR T2 4L 40-275 | 2CTB804601R0500 | | 0.45 |
| 4 | 20 | 5 | 1.0 | 230/400 | 275 | 519450 | OVR T2 4L 20-275 (x5) | 2CTB804600R1500 | | |
| 4 | 40 | 20 | 1.4 | 230/400 | 275 | 519474 | OVR T2 4L 40-275 (x5) | 2CTB804601R1500 | | |

**Type 2 pluggable - Uc 275 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 40 | 20 | 1,25 | 230/400 | 275 | 513274 | OVR T2 4L 40-275 P QS | 2CTB803873R5600 | | 0.45 |
| 4 | 40 | 20 | 1,25 | 230/400 | 275 | 514417 | OVR T2 4L 40-275 P TS QS | 2CTB803873R5200 | | 0.45 |
| 4 | 40 | 20 | 1,5 | 230/400 | 275 | 513021 | OVR T2 4L 40-275s P QS | 2CTB815704R2300 | | 0.45 |
| 4 | 40 | 20 | 1,5 | 230/400 | 275 | 513014 | OVR T2 4L 40-275s P TS QS | 2CTB815704R1100 | | 0.45 |
| 4 | 80 | 30 | 1,8 | 230/400 | 275 | 513045 | OVR T2 4L 80-275s P QS | 2CTB815708R2300 | | 0.45 |
| 4 | 80 | 30 | 1,8 | 230/400 | 275 | 513052 | OVR T2 4L 80-275s P TS QS | 2CTB815708R1100 | | 0.45 |



**Where to find more:**
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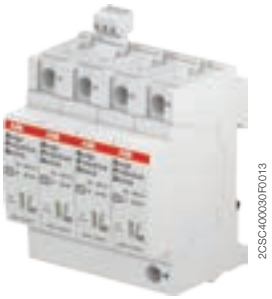
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Fuses and fuseholders p.5/94

# Protection and safety
## OVR Type 2 surge protective devices TNS 400 V networks

| Technical features | | | |
|---|---|---|---|
| Types | | OVR T2 4L 40-440 P QS | |
| with auxiliary contact (TS) | | OVR T2 4L 40-440 P TS QS | OVR T2 4L 40-600 P TS QS |
| **Electrical features** | | | |
| Standard | | IEC 61643-11 / EN 61643-11 | |
| Type / test class | | T2 / II | T2 / II |
| Protected lines | | 4 | 4 |
| System network | | TNS | TNS |
| Type of current | | AC | AC |
| Voltage regultaion of the system network | | ± 10% | ± 50% |
| Nominal system voltage Un (L-N/ L-L) | V | 400/690 | 400/690 |
| Max. cont. operating AC voltage Uc | V | 440 | 600 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | 495/990 | 650/990 |
| Max. dc cont. Operating voltage Ucdc L-PE / Ucdc L-L | | 545/1090 | 715/1090 |
| Nominal dc voltage Un dc L-PE / Un dc L-L | | 495/990 | 495/990 |
| Max. dc cont. Operating voltage Ucdc L-PE / Ucdc L-L | | 545/1090 | 545/1090 |
| Maximal discharge current Imax (8/20) | kA | 40 | 40 |
| Maximum impulse current Iimp (10/350) | kA | 2 | 2 |
| Nominal discharge current In (8/20) | kA | 20 | 20 |
| Follow current interrupting rating Ifi | kA | - | |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | kV | 1,8 /- /3,8 | 2,3 /- /2,3 |
| Voltage protection level Ures at 3 kA | kV | 1.25 | 1.6 |
| Voltage protection level Ures at 5 kA | | 1.35 | 1.7 |
| Voltage protection level Ures at 10 kA | | 1.55 | 1.9 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | V | 581/ | 792/ |
| Response time | ns | ≤25 | ≤25 |
| Short-circuit withstand capability Isccr | kA | 100 | 100 |
| Backup protection maximum rating | | | |
| fuse (gG - gL) | A | ≤125 | ≤125 |
| circuit breaker (B or C curve) | A | ≤125 | ≤125 |
| Pluggable cartridge | | Yes | Yes |
| Integrated thermal disconnector | | Yes | Yes |
| State indicator | | Yes | Yes |
| Safety reserve | | No | No |
| Auxiliary contact | | Yes (TS option) | Yes |
| **Installation** | | | |
| Wire range (L, N, PE) solid wire | mm² | 2.5 … 25 | 2.5 … 25 |
| stranded wire | mm² | 2.5 … 16 | 2.5 … 16 |
| Stripping length (L, N, PE) | mm | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | Nm | 2.5 | 2.5 |
| Auxiliary contact (TS) | | - | - |
| Contacts information | | - | - |
| Min. load | | - | - |
| Max. load | | - | - |
| Connection cross-section | mm² | | |
| **Miscellanous characteristics** | | | |
| Stocking and operating temperature | °C | -40 to +80 | -40 to +80 |
| Degree of protection | | IP 20 - Indoor | IP 20 - Indoor |
| Fire resistance according to UL 94 | | V0 | V0 |
| **Dimensions** | | | |
| height x width x depth | mm | 85 x 71.2 x 64.8 | |
| | inches | 3.35 x 2.8 x 2.55 | |

| | | | |
|---|---|---|---|
| **Dimensions with auxilary contact (TS)** | | | |
| height x width x depth | mm | 96 x 71.2 x 64.8 | 96 x 71.2 x 64.8 |
| | inches | 3.78 x 2.8 x 2.55 | 3.78 x 2.8 x 2.55 |
| **Replacement Cartdriges** | | | |
| Phase Product ID | | OVR T2 40-440 C QS | OVR T2 40-600 C QS |
| | | 2CTB803876R0400 | 2CTB803886R0400 |




OVR T2 4L 20-275

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**OVR T2 Pluggable**

| Protected lines | Max. discharge current Imax 8/20 kA | Nominal current In 8/20 | Voltage Protection Level Up KV | Max. cont. Operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 40 | 20 | 1,8 | 440 | 519894 | OVR T2 4L 40-440 P QS | 2CTB803873R5100 | | 0.45 |
| 4 | 40 | 20 | 1,8 | 440 | 519900 | OVR T2 4L 40-440 P TS QS | 2CTB803873R5300 | | 0.45 |
| 4 | 40 | 20 | 2,3 | 600 | 520685 | OVR T2 4L 40-600 P TS QS | 2CTB803883R5300 | | 0.45 |

**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
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# Protection and safety
## OVR Type 2 surge protective devices TNS/TT 230 V 1Ph+N networks




**OVR T2 1N 40-275 P QS**



| Technical features | | | | | | |
|---|---|---|---|---|---|---|
| Types | | | **OVR T2 1N 40-275 P QS** | **OVR T2 1N 40-275s P QS** | **OVR T2 1N 80-275s P QS** | **OVR T2 1N 40-350 P QS** |
| with auxiliary contact (TS) | | | **OVR T2 1N 40-275 P TS QS** | **OVR T2 1N 40-275s P TS QS** | **OVR T2 1N 80-275s P TS QS** | **OVR T2 1N 40-350 P TS QS** |
| **Electrical features** | | | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 1+1 | 1+1 | 1+1 | 1+1 |
| System network | | | TNS - TT | TT - TNS | TT - TNS | TNS - TT |
| Type of current | | | AC 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 20% | ± 20% | ± 50% |
| Nominal system voltage Un | | [V] | 230 | 230 | 230 | 230 |
| Max. cont. operating voltage Uc | | [V] | 275 | 275 | 275 | 350 |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 40 | 80 | 40 |
| Maximum impulse current Iimp (10/350) | | [kA] | 2 | 2 | 6.25 | 2 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 | 30 | 20 |
| Total Current | | [kA] | 80 | 80 | 160 | 80 |
| Voltage protection level Up at In (L-N / N-PE / L-PE) | | [kV] | 1.25 / 1.4 / 1.5 | 1.25 / 1.4 / 1.5 | 1.6/1/1.8 | 1.5 / 1.4 / 1.7 |
| Voltage protection level Ures at 3 kA | | [kV] | 0.8 / 1.4/ 0.85 | 0.8 / 1.4/ 0.85 | 0.8 / 1.4/ 0.85 | 1.0 / 1.4 / 1.05 |
| Voltage protection level Ures at 5 kA | | [kV] | 0.85 / 1.4 / 0.95 | 0.85 / 1.4 / 0.95 | 0.85 / 1.4 / 0.95 | 1.05 / 1.4 / 1.1 |
| Voltage protection level Ures at 10 kA | | [kV] | 1 / 1.4/ 1.15 | 1 / 1.4/ 1.15 | 1 / 1.4/ 1.15 | 1.2 / 1.4/ 1.3 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / 1200 | 337 / 1200 | 337 / 1200 | 455 / 1200 |
| Uoc | | [kV] | - | - | - | - |
| Response time | | [ns] | < 25 | < 25 | < 25 | < 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 | ≤ 160 | ≤ 160 | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | Yes | Yes | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 35 | 2.5 … 35 | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 | 1.5 | 1.5 |

| Technical features | | | | | |
|---|---|---|---|---|---|
| Types | | OVR T2 1N 40-275 P QS | OVR T2 1N 40-275s P QS | OVR T2 1N 80-275s P QS | OVR T2 1N 40-350 P QS |
| with auxiliary contact (TS) | | OVR T2 1N 40-275 P TS QS | OVR T2 1N 40-275s P TS QS | OVR T2 1N 80-275s P TS QS | OVR T2 1N 40-350 P TS QS |
| **Miscellanous characteristics** | | | | | |
| Stocking and operating temperature | °C | -40 to +80 | - 40 to +80 | - 40 to +80 | -40 to +80 |
| Degree of protection | | IP 20 | IP 20 - Indoor | IP 20 - Indoor | IP 20 |
| Fire resistance according to UL 94 | | V0 | V-0 | V-0 | V0 |
| **Dimensions** | | | | | |
| height x width x depth | mm | 85x35.6x64.8 | 85x35.6x69.4 | 85x35.6x69.4 | 85x35.6x64.8 |
| | inches | 3.35x1.40x2.55 | 3.35x1.40x2.73 | 3.35x1.40x2.73 | 3.35x1.40x2.55 |
| **With Auxiliary Contact (TS)** | | | | | |
| height x width x depth | mm | 96x35.6x64.8 | 96x35.6x69.4 | 96x35.6x69.4 | 96x35.6x64.8 |
| | inches | 3.78x1.40x2.55 | 3.78x1.40x2.73 | 3.78x1.40x2.73 | 3.78x1.40x2.55 |
| **Replacement Cartridges** | | | | | |
| Phase Product ID | | OVR T2 40-275 C QS 2CTB803876R1000 | OVR T2 40-275s C QS 2CTB815704R2600 | OVR T2 80-275s C QS 2CTB815708R2600 | OVR T2 40-350 C QS 2CTB803886R1000 |
| Neutral Product ID | | OVR T2 N 80-275 C QS 2CTB803876R0000 | OVR T2 N 80-275s C QS 2CTB815708R2800 | OVR T2 N 80-275s C QS 2CTB815708R2800 | OVR T2 N 80-350 C QS 2CTB803886R0000 |



Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up).

They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 pluggable**

| Poles | Impluse Curent limp 10/350 kA | Max discharge current Imax 8/20 kA | Nominal current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1+1 | - | 40 | 20 | 1,4 | 230 | 275 | 519696 | OVR T2 1N 40-275 P QS | 2CTB803972R1100 | | 0.24 |
| 1+1 | - | 40 | 20 | 1,4 | 230 | 275 | 519702 | OVR T2 1N 40-275 P TS QS | 2CTB803972R0500 | | 0.24 |
| 1+1 | - | 40 | 20 | 1,3 | 230 | 275 | 525239 | OVR T2 1N 40-275s P TS QS (*) | 2CTB815704R0200 | | 0.30 |
| 1+1 | - | 40 | 20 | 1,3 | 230 | 275 | 525307 | OVR T2 1N 40-275s P QS (*) | 2CTB815704R1400 | | 0.30 |
| 1+1 | - | 80 | 30 | 1,3 | 230 | 275 | 525413 | OVR T2 1N 80-275s P TS QS (*) | 2CTB815708R0200 | | 0.30 |
| 1+1 | - | 80 | 30 | 1,3 | 230 | 275 | 525482 | OVR T2 1N 80-275s P QS (*) | 2CTB815708R1400 | | 0.30 |
| 1+1 | - | 40 | 20 | 1,4 | 230 | 350 | 519719 | OVR T2 1N 40-350 P QS | 2CTB803982R1100 | | 0.24 |
| 1+1 | - | 40 | 20 | 1,4 | 230 | 350 | 519726 | OVR T2 1N 40-350 P TS QS | 2CTB803982R0500 | | 0.24 |

# Protection and safety
## OVR Type 2 surge protective devices TNS/TT 230 and 400 V 3Ph+N networks




**OVR T2 3N 40-275 P QS**

| Technical features | | | | |
|---|---|---|---|---|
| Types | | | **OVR T2 3N 40-275 P QS** | **OVR T2 3N 40-275s P QS** |
| with auxiliary contact (TS) | | | **OVR T2 3N 40-275 P TS QS** | **OVR T2 3N 40-275s P TS QS** |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2 / II | T2 / II |
| Protected lines | | | 3+1 | 3+1 |
| System network | | | TNS - TT | TT - TNS |
| Type of current | | | AC 45-65Hz | a.c. 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 20% |
| Nominal system voltage Un (L-N / L-L) | | [V] | 230 / 400 | 230 / 400 |
| Max. cont. operating voltage Uc (L-N / L-L) | | [V] | 275 / 440 | 275 / 440 |
| Maximum discharge current Imax (8/20) | | [kA] | 40 | 40 |
| Maximum impulse current Iimp (10/350) | | [kA] | 2 | 2 |
| Nominal discharge current In (8/20) | | [kA] | 20 | 20 |
| Total Current | | [kA] | 160 | 160 |
| Voltage protection level Up at In (L-N / N-PE / L-PE) | | [kV] | 1.25 / 1.4 / 1.5 | 1.25 / 1.4 / 1.5 |
| Voltage protection level Ures at 3kA (L-N / N-PE / L-PE) | | [kV] | 0.8 / 1.4/ 0.85 | 0.8 / 1.4/ 0.85 |
| Voltage protection level Ures at 5kA (L-N / N-PE / L-PE) | | [kV] | 0.85 / 1.4/ 0.95 | 0.85 / 1.4/ 0.95 |
| Voltage protection level Ures at 10kA (L-N / N-PE / L-PE) | | [kV] | 1 / 1.4 / 1.15 | 1 / 1.4 / 1.15 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / 1200 | 337 / 1200 |
| Response time | | [ns] | < 25 | < 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 |
| Backup protection maximum | fuse (gG - gL) | [A] | ≤ 125 | ≤ 160 |
| rating | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | Yes |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 35 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | - 40 to +80 |
| Degree of protection | | | IP 20 | IP 20 - Indoor / Intérieur |
| Fire resistance according to UL 94 | | | V0 | V-0 |
| **Dimensions** | | | | |
| height x width x depth | | [mm] | 85x71.2x64.8 | 85x71.2x69.4 |
| | | [inches] | 3.35x2.81x2.55 | 3.35x2.81x2.73 |
| With Auxiliary Contact (TS) | | | | |
| height x width x depth | | [mm] | 96x71.2x64.8 | 96x71.2x69.4 |
| | | [inches] | 3.35x2.81x2.55 | 3.35x2.81x2.73 |
| **Replacement Cartridges** | | | | |
| Phase Product ID | | | OVR T2 40-275 C QS<br>2CTB803876R1000 | OVR T2 40-275s C QS<br>2CTB815704R2600 |
| Neutral Product ID | | | OVR T2 N 80-275 C QS<br>2CTB803876R0000 | OVR T2 N 80-275s C QS<br>2CTB815708R2800 |

| | OVR T2 3N 80-275s P QS<br>OVR T2 3N 80-275s P TS QS | OVR T2 3N 40-350 P QS<br>OVR T2 3N 40-350 P TS QS | OVR T2 3N 40-440 P QS<br>OVR T2 3N 40-440 P TS QS | OVR T2 3N 40-440s P TS QS | OVR T2 3N 80-440s P QS<br>OVR T2 3N 80-440s P TS QS |
|---|---|---|---|---|---|
| | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| | T2 / II | T2 / II | T2 / II | T2 / II | T2 / II |
| | 3+1 | 3+1 | 3+1 | 3+1 | 3+1 |
| | TT - TNS | TNS - TT | TNS - TT | TT - TNS | TT - TNS |
| | a.c. 45-65Hz | AC 45-65Hz | AC 45-65Hz | a.c. 45-65Hz | a.c. 45-65Hz |
| | 0 | ± 50% | ± 10% | ± 10% | 0 |
| | 230/440 | 230 / 400 | 400 / 690 | 400/690 | 400/690 |
| | 275/440 | 350 / 600 | 440 / 760 | 440/760 | 440/760 |
| | 80 | 40 | 40 | 40 | 80 |
| | 6.25 | 2 | 2 | 2 | 6.25 |
| | 30 | 20 | 20 | 20 | 30 |
| | 240 | 160 | 160 | 160 | 160 |
| | 1.6 / 1/ 1.8 | 1.5 / 1.4 / 1.7 | 1.8 / 1.4 / 2.1 | 1.8 / 1.4 / 2.1 | 2.1/1/ 2.4 |
| | 0.8 / 1.4/ 0.85 | 1.0 / 1.4 / 1.05 | 1.25 / 1.4/ 1.45 | 1.25 / 1.4/ 1.45 | 1.25 / 1.4/ 1.45 |
| | 0.85 / 1.4/ 0.95 | 1.05 / 1.4/ 1.1 | 1.35 / 1.4 / 1.45 | 1.35 / 1.4 / 1.45 | 1.35 / 1.4/ 1.45 |
| | 1 / 1.4 / 1.15 | 1.2 / 1.4 / 1.3 | 1.55 / 1.4 / 1.65 | 1.55 / 1.4 / 1.65 | 1.55 / 1.4 / 1.65 |
| | 337/1200 | 455 / 1200 | 581 / 1200 | 581 / 1200 | 581 / 1200 |
| | < 25 | < 25 | < 25 | < 26 | < 25 |
| | 100 | 100 | 100 | 100 | 100 |
| | ≤ 160 | ≤ 125 | ≤ 125 | ≤ 160 | ≤ 160 |
| | ≤ 125 | ≤ 125 | ≤ 125 | ≤ 125 | ≤ 125 |
| | Yes | Yes | Yes | Yes | Yes |
| | Yes | Yes | Yes | Yes | Yes |
| | Yes | Yes | Yes | Yes | Yes |
| | Yes | No | No | Yes | Yes |
| | Yes (TS option) | Yes (TS option) | Yes (TS option) | Yes | Yes (TS option) |
| | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 | 2.5 … 25 |
| | 2.5 … 35 | 2.5 … 16 | 2.5 … 16 | 2.5 … 35 | 2.5 … 35 |
| | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC | 1 NO- 1 NC |
| | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA | 12DC - 10mA |
| | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A | 250VAC - 1A |
| | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| | - 40 to +80 | -40 to +80 | -40 to +80 | - 40 to +80 | - 40 to +80 |
| | IP 20 - Indoor / Intérieur | IP 20 | IP 20 | IP 20 - Indoor / Intérieur | IP 20 - Indoor / Intérieur |
| | V-0 | V0 | V0 | V-0 | V-0 |
| | 85x71.2x69.4 | 85x71.2x64.8 | 85x71.2x64.8 | | 85x71.2x69.4 |
| | 3.35x2.81x2.73 | 3.35x2.81x2.55 | 3.35x2.81x2.55 | | 3.35x2.81x2.73 |
| | 96x71.2x69.4 | 96x71.2x64.8 | 96x71.2x64.8 | 96x71.2x69.4 | 96x71.2x69.4 |
| | 3.35x2.81x2.73 | 3.35x2.81x2.55 | 3.35x2.81x2.55 | 3.35x2.81x2.73 | 3.35x2.81x2.73 |
| | OVR T2 80-275s C QS<br>2CTB815708R2600 | OVR T2 40-350 C QS<br>2CTB803886R1000 | OVR T2 40-440 C QS<br>2CTB803876R0400 | OVR T2 40-440s C QS<br>2CTB815704R5500 | OVR T2 80-440s C QS<br>2CTB815708R5500 |
| | OVR T2 N 80-275s C QS<br>2CTB815708R2800 | OVR T2 N 80-350 C QS<br>2CTB803886R0000 | OVR T2 N 80-440 C QS<br>2CTB803886R0100 | OVR T2 N 80-440s C QS<br>2CTB815708R5700 | OVR T2 N 80-440s C QS<br>2CTB815708R5700 |

# Protection and safety
## OVR Type 2 surge protective devices TNS/TT 230 and 400 V 3Ph+N networks




OVR T2 3N 40-275
P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

**Type 2 pluggable**

| Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 20 | 1,4 | 230 | 275 | 519.931 | OVR T2 3N 40-275 P QS | 2CTB803973R1100 | | 0.48 |
| 40 | 20 | 1,4 | 230 | 275 | 519.948 | OVR T2 3N 40-275 P TS QS | 2CTB803973R0500 | | 0.48 |
| 40 | 20 | 1,3 | 230 | 275 | 52526 0 | OVR T2 3N 40-275s P TS QS (*) | 2CTB815704R0800 | | 0.60 |
| 40 | 20 | 1,3 | 230 | 275 | 52532 1 | OVR T2 3N 40-275s P QS (*) | 2CTB815704R2000 | | 0.60 |
| 80 | 30 | 1,3 | 230 | 275 | 52544 4 | OVR T2 3N 80-275s P TS QS (*) | 2CTB815708R0800 | | 0.60 |
| 80 | 30 | 1,3 | 230 | 275 | 52550 5 | OVR T2 3N 80-275s P QS (*) | 2CTB815708R2000 | | 0.60 |
| 40 | 20 | 1,4 | 230 | 350 | 519.962 | OVR T2 3N 40-350 P QS | 2CTB803983R1100 | | 0.48 |
| 40 | 20 | 1,4 | 230 | 350 | 519.979 | OVR T2 3N 40-350 P TS QS | 2CTB803983R0500 | | 0.48 |
| 40 | 20 | 1,4 | 400 | 440 | 519.993 | OVR T2 3N 40-440 P QS | 2CTB803973R1400 | | 0.48 |
| 40 | 20 | 1,4 | 400 | 440 | 520.005 | OVR T2 3N 40-440 P TS QS | 2CTB803973R1500 | | 0.48 |
| 40 | 20 | 1,3 | 400 | 440 | 52537 6 | OVR T2 3N 40-440s P TS QS (*) | 2CTB815704R3700 | | 1.05 |
| 80 | 30 | 1,3 | 400 | 440 | 52558 1 | OVR T2 3N 80-440s P TS QS (*) | 2CTB815708R3700 | | 1.05 |
| 80 | 30 | 1,3 | 400 | 440 | 52562 8 | OVR T2 3N 80-440s P QS (*) | 2CTB815708R4900 | | 1.05 |

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**Maybe you are also interested in:**
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# Protection and safety
## OVR Type T2-T3 QuickSafe® surge protective devices
## Single pole - 230 V and 440 V networks




**OVR T2 T3 20- 275 P QS**



| **Technical features** | | | | |
|---|---|---|---|---|
| Types | | | **OVR T2-T3 20-275 P QS** | **OVR T2-T3 20-440 P QS** |
| with auxiliary contact (TS) | | | **OVR T2-T3 20-275 P TS QS** | **OVR T2-T3 20-440 P TS QS** |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2-T3 / II-III | T2-T3 / II-III |
| Protected lines | | | 1 | 1 |
| System network | | | TNC - TNS - TT(P-N) | TNC - TNS - TT(P-N) |
| Type of current | | | AC 45-65Hz | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 10% |
| Nominal system voltage Un | | [V] | 230 | 400 |
| Max. cont. operating voltage Uc | | [V] | 275 | 440 |
| Nominal dc voltage Un dc L-PE | | [V dc] | 320 | 320 |
| Max. dc. cont. operating voltage Ucdc L-PE | | [V dc] | 355 | 355 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 20 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 5 |
| Voltage protection level Up at In (L-N) | | [kV] | 0,9 /- /- | 1,4 /- /- |
| Voltage protection level Ures at 3kA (L-N) | | [kV] | 0.8 | 1.25 |
| Voltage protection level Ures at 5kA (L-N) | | [kV] | 0.85 | 1.35 |
| Voltage protection level Ures at 10kA (L-N) | | [kV] | 1 | 1.55 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / - | 581 / - |
| Uoc | | [kV] | 6 | 6 |
| Response time | | [ns] | ≤ 25 | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2.8 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1.5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP 20 | IP 20 |
| Fire resistance according to UL 94 | | | V0 | V0 |
| **Dimensions of packing** | | | | |

| Technical features | | | |
|---|---|---|---|
| Types | | **OVR T2-T3 20-275 P QS** | **OVR T2-T3 20-440 P QS** |
| with auxiliary contact (TS) | | **OVR T2-T3 20-275 P TS QS** | **OVR T2-T3 20-440 P TS QS** |
| height x width x depth | [mm] | 85x17.8x64.8 | 85x17.8x64.8 |
| | [inches] | 3.35x0.70x2.55 | 3.35x0.70x2.55 |
| **With Auxiliary Contact (TS)** | | | |
| height x width x depth | mm | 96x17.8x64.8 | 96x17.8x64.8 |
| | inches | 3.78x0.70x2.55 | 3.78x0.70x2.55 |
| **Replacement Cartridges** | | | |
| Phase Product ID | | OVR T2-T3 20-275 C QS 2CTB803876R1200 | OVR T2-T3 20-440 C QS 2CTB803876R0600 |
| Neutral Product ID | | - | - |



Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterize by their capacity to safely discharge current with a 8/20 µs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 µs wave form, with a very low level of Voltage Protection level.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 5 | 0,9 | 230 | 275 | 519.566 | OVR T2-T3 20-275 P QS | 2CTB803871R2400 | | 0.12 |
| 1 | 20 | 5 | 0,9 | 230 | 275 | 519.573 | OVR T2-T3 20-275 P TS QS | 2CTB803871R2500 | | 0.12 |
| 1 | 20 | 5 | 1,4 | 400 | 440 | 519.603 | OVR T2-T3 20-440 P QS | 2CTB803871R1100 | | 0.12 |
| 1 | 20 | 5 | 1,4 | 400 | 440 | 519.610 | OVR T2-T3 20-440 P TS QS | 2CTB803871R1300 | | 0.12 |

# Protection and safety
## OVR Type T2-T3 QuickSafe® surge protective devices
## TNC - 230 V 3Ph + PEN networks




OVR T2 T3 3L 20-275 P TS QS

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| Technical features | | | |
|---|---|---|---|
| Types | | | **OVR T2-T3 3L 20-275 P QS** |
| with auxiliary contact (TS) | | | **OVR T2-T3 3L 20-275 P TS QS** |
| **Electrical features** | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2-T3 / II-III |
| Protected lines | | | 3 |
| System network | | | TNC |
| Type of current | | | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% |
| Nominal system voltage Un (L-PEN / L-L) | | [V] | 230/ 400 |
| Max. cont. operating voltage Uc (L-PEN / L-L) | | [V] | 275 / 440 |
| Nominal dc voltage Un dc L-PE | | [V dc] | 320 |
| Max. dc. cont. operating voltage Ucdc L-PE | | [V dc] | 355 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 |
| Nominal discharge current In (8/20) | | [kA] | 5 |
| Total Current | | [kA] | 60 |
| Voltage protection level Up at In (L-N / N-PE / L-PE) | | [kV] | 0,85 /- /- |
| Voltage protection level Ures at 3kA | | [kV] | 0.8 |
| Voltage protection level Ures at 5kA | | [kV] | 0.85 |
| Voltage protection level Ures at 10kA | | [kV] | 1.0 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / - |
| Uoc | | [kV] | 6 |
| Response time | | [ns] | ≤ 25 |
| Short-circuit withstand capability Isccr | | [kA] | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 |
| Pluggable cartridge | | | Yes |
| Integrated QuickSafe® technology | | | Yes |
| State indicator | | | Yes |
| Safety reserve | | | No |
| Auxiliary contact | | | Yes (TS option) |
| **Installation** | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 |
| **Auxiliary contact (TS)** | | | |
| Contacts information | | | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA |
| Max. load | | | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 |
| **Miscellanous characteristics** | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 |
| Degree of protection | | | IP 20 |
| Fire resistance according to UL 94 | | | V0 |

| Technical features | | |
|---|---|---|
| Types | | **OVR T2-T3 3L 20-275 P QS** |
| with auxiliary contact (TS) | | **OVR T2-T3 3L 20-275 P TS QS** |
| **Dimensions** | | |
| height x width x depth | mm | 85x53.4x64.8 |
| | inches | 3.35x2.10x2.55 |
| **With Auxiliary Contact (TS)** | | |
| height x width x depth | mm | 96x53.4x64.8 |
| | inches | 3.78x2.10x2.55 |
| **Replacement Cartridges** | | |
| Phase Product ID | | OVR T2-T3 20-275 C QS<br>2CTB803876R1200 |
| Neutral Product ID | | - |



Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterize by their capacity to safely discharge current with a 8/20 µs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 µs wave form, with a very low level of Voltage Protection level.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 20 | 5 | 0,85 | 230 | 275 | 519.818 | OVR T2-T3 3L 20-275 P QS | 2CTB803873R3400 | | 0.36 |
| 3 | 20 | 5 | 0,85 | 230 | 275 | 520.661 | OVR T2-T3 3L 20-275 P TS QS | 2CTB803873R3500 | | 0.36 |

# Protection and safety
## OVR Type T2-T3 QuickSafe® surge protective devices
## TNS/TT - 230 V 1Ph+N networks




**OVR T2 T3 1N 20-275 P QS**

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| **Technical features** | | | |
|---|---|---|---|
| Types | | | **OVR T2-T3 1N 20-275 P QS** |
| with auxiliary contact (TS) | | | **OVR T2-T3 1N 20-275 P TS QS** |
| **Electrical features** | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2-T3 / II-III |
| Protected lines | | | 1+1 |
| System network | | | TNS - TT |
| Type of current | | | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% |
| Nominal system voltage Un | | [V] | 230 |
| Max. cont. operating voltage Uc | | [V] | 275 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 |
| Nominal discharge current In (8/20) | | [kA] | 5 |
| Total Current | | [kA] | 40 |
| Voltage protection level Up at In (L-N / N-PE / L-PE) | | [kV] | 0.9 / 1.4 / 1.4 |
| Voltage protection level Ures at 3kA (L-N / N-PE / L-PE) | | [kV] | 0.8 /1.4 / 0.85 |
| Voltage protection level Ures at 5kA(L-N / N-PE / L-PE) | | [kV] | 0.85 / 1.4 / 0.95 |
| Voltage protection level Ures at 10kA (L-N / N-PE / L-PE) | | [kV] | 1 / 1.4/ 1.15 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / 1200 |
| Uoc | | [kV] | 6 |
| Response time | | [ns] | ≤ 25 |
| Residual current IPE | | [µA] | ≤ 10 |
| Short-circuit withstand capability Isccr | | [kA] | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 |
| Pluggable cartridge | | | Yes |
| Integrated QuickSafe® technology | | | Yes |
| State indicator | | | Yes |
| Safety reserve | | | No |
| Auxiliary contact | | | Yes (TS option) |
| **Installation** | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 |
| **Auxiliary contact (TS)** | | | |
| Contacts information | | | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA |
| Max. load | | | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 |
| **Miscellanous characteristics** | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 |
| Degree of protection | | | IP 20 |
| Fire resistance according to UL 94 | | | V0 |
| **Dimensions** | | | |
| height x width x depth | | [mm] | 85x35.6x64.8 |
| | | [inches] | 3.35x1.40x2.55 |

| Technical features | | |
|---|---|---|
| Types | | **OVR T2-T3 1N 20-275 P QS** |
| with auxiliary contact (TS) | | **OVR T2-T3 1N 20-275 P TS QS** |
| **With Auxiliary Contact (TS)** | | |
| height x width x depth | mm | 96x35.6x64.8 |
| | inches | 3.78x1.40x2.55 |
| **Replacement Cartridges** | | |
| Phase Product ID | | OVR T2-T3 20-275 C QS<br>2CTB803876R1200 |
| Neutral Product ID | | OVR T2-T3 N 80-275 C QS<br>2CTB803876R0000 |



Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterize by their capacity to safely discharge current with a 8/20 µs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 µs wave form, with a very low level of Voltage Protection level.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1+1 | 20 | 5 | 1,4 | 230 | 275 | 519.689 | OVR T2-T3 1N 20-275 P QS | 2CTB803972R1200 | | 0.24 |
| 1+1 | 20 | 5 | 1,4 | 230 | 275 | 520.654 | OVR T2-T3 1N 20-275 P TS QS | 2CTB803972R1300 | | 0.24 |

# Protection and safety
## OVR Type T2-T3 QuickSafe® surge protective devices
## TT - 230 V and 400 V 3Ph+N networks




OVR T2 T3 3N 20-275 P TS QS

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| Technical features | | | | |
|---|---|---|---|---|
| Types | | | OVR T2-T3 3N 20-275 P QS | OVR T2-T3 3N 20-440 P QS |
| with auxiliary contact (TS) | | | OVR T2-T3 3N 20-275 P TS QS | OVR T2-T3 3N 20-440 P TS QS |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2-T3 / II-III | T2-T3 / II-III |
| Protected lines | | | 3+1 | 3+1 |
| System network | | | TNS - TT | TNS - TT |
| Type of current | | | AC 45-65Hz | AC 45-65Hz |
| Voltage regulation of the system network | | | ± 20% | ± 20% |
| Nominal system voltage Un (L-N / L-L) | | [V] | 230 / 400 | 400 / 690 |
| Max. cont. operating voltage Uc (L-N / L-L) | | [V] | 275 / 440 | 440 / 750 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 20 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 5 |
| Total Current | | [kA] | 80 | 80 |
| Voltage protection level Up at In (L-N / N-PE / L-PE) | | [kV] | 0.9 / 1.4 / 1.4 | 1.4 / 1.4 / 1.4 |
| Voltage protection level Ures at 3kA (L-N / N-PE / L-PE) | | [kV] | 0.8 / 1.4/ 0.85 | 1.25 / 1.4 / 1.4 |
| Voltage protection level Ures at 5kA (L-N / N-PE / L-PE) | | [kV] | 0.85 / 1.4 / 0.95 | 1.35 / 1.4 / 1.45 |
| Voltage protection level Ures at 10kA (L-N / N-PE / L-PE) | | [kV] | 1 / 1.4/ 1.15 | 1.35 / 1.4 / 1.65 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | | [V] | 337 / 1200 | 581 / 1200 |
| Uoc | | [kV] | 6 | 6 |
| Response time | | [ns] | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | ≤ 10 | ≤ 10 |
| Short-circuit withstand capability Isccr | | [kA] | 100 | 100 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | ≤ 125 | ≤ 125 |
| | circuit breaker (B or C curve) | [A] | ≤ 125 | ≤ 125 |
| Pluggable cartridge | | | Yes | Yes |
| Integrated QuickSafe® technology | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | No |
| Auxiliary contact | | | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | |
| Wire range (L, N, PE) | solid wire | [mm²] | 2.5 … 25 | 2.5 … 25 |
| | stranded wire | [mm²] | 2.5 … 16 | 2.5 … 16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12,5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.8 | 2,8 |
| **Auxiliary contact (TS)** | | | | |
| Contacts information | | | 1 NO- 1 NC | 1 NO- 1 NC |
| Min. load | | | 12DC - 10mA | 12DC - 10mA |
| Max. load | | | 250VAC - 1A | 250VAC - 1A |
| Connection cross-section | | [mm²] | 1.5 | 1,5 |
| **Miscellanous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP 20 | IP 20 |

| Technical features | | | |
|---|---|---|---|
| Types | | OVR T2-T3 3N 20-275 P QS | OVR T2-T3 3N 20-440 P QS |
| with auxiliary contact (TS) | | OVR T2-T3 3N 20-275 P TS QS | OVR T2-T3 3N 20-440 P TS QS |
| Fire resistance according to UL 94 | | V0 | V0 |
| **Dimensions** | | | |
| height x width x depth | mm | 85x71.2x64.8 | 85x71.2x64.8 |
| | inches | 3.35x2.81x2.55 | 3.35x2.81x2.55 |
| **With Auxiliary Contact (TS)** | | | |
| height x width x depth | mm | 96x71.2x64.8 | 96x71.2x64.8 |
| | inches | 3.35x2.81x2.55 | 3.35x2.81x2.55 |
| **Replacement Cartridges** | | | |
| Phase Product ID | | OVR T2-T3 20-275 C QS 2CTB803876R1200 | OVR T2-T3 20-440 C QS 2CTB803876R0600 |
| Neutral Product ID | | OVR T2 N 80-275 C QS 2CT-B803876R0000 | OVR T2 N 80-440 C QS 2CTB803886R0100 |



Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterize by their capacity to safely discharge current with a 8/20 µs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 µs wave form, with a very low level of Voltage Protection level.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3+1 | 20 | 5 | 1.4 | 230 | 275 | 519.924 | OVR T2-T3 3N 20-275 P QS | 2CTB803973R1200 | | 0.48 |
| 3+1 | 20 | 5 | 1.4 | 230 | 275 | 520.692 | OVR T2-T3 3N 20-275 P TS QS | 2CTB803973R1600 | | 0.48 |
| 3+1 | 20 | 5 | 1.4 | 400 | 440 | 519986 | OVR T2-T3 3N 20-440 P QS | 2CTB803973R1300 | | 0.48 |
| 3+1 | 20 | 5 | 1.4 | 400 | 440 | 520715 | OVR T2-T3 3N 20-440 P TS QS | 2CTB803973R1700 | | 0.48 |

# Protection and safety
## OVR Type T2-T3 StreetLight surge protective devices
## TT TN - 230 V




**OVR T2 T3 StreetLight**

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| **Technical features** | | | |
|---|---|---|---|
| Types | | | **OVR T2-T3 N1 15-275S SL** |
| **Electrical features** | | | |
| Standard | | | IEC 61643-11 / EN 61643-11 |
| Type / test class | | | T2-T3 / II-III |
| System network | | | TT, TN |
| Protection mode | | | Commun + differentiel |
| Number of pole / Type of current | | | 2 / AC |
| Nominal system voltage Un | | [V] | 230 |
| Max. cont. operating voltage Uc (L-N ) | | [V] | 275 |
| Maximum discharge current Imax (8/20) | | [kA] | 15 |
| Nominal discharge current In (8/20) | | [kA] | 5 |
| Total Current | | [kA] | 30 |
| Voltage protection level Up at In (L-N / L-PE) | | [kV] | 1.1/1.3 |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s.) | | [V] | 337 |
| Uoc | | [kV] | 1.1 |
| Response time | | [ns] | < 25 |
| Short circuit withstand Icc | | [kA] | 15 |
| Backup protection maximum rating | fuse (gG - gL) | [A] | < 20 A |
| | circuit breaker (B or C curve) | [A] | < 20 A |
| Pluggable cartridge | | | No |
| Integrated QuickSafe® technology | | | No |
| State indicator | | | Yes |
| Safety reserve | | | No |
| **Installation** | | | |
| Wire range : phase and neutral wire | | | 2 x 1.5mm² - L 16cm |
| Wire range : Protective Earth wire | | [mm²] | < 6mm² |
| Stripping length (L, N, PE) | | [mm] | 10 |
| **Auxiliary contact (TS)** | | | |
| Contacts information | | | - |
| Min. load | | | - |
| Max. load | | | - |
| Connection cross-section | | [mm²] | - |
| **Miscellanous characteristics** | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 |
| Degree of protection | | | IP 32 |
| Fire resistance according to UL 94 | | | V0 |
| **Dimensions** | | | |
| height x width x depth | | [mm] | 17.5x84.5x41 |
| | | [inches] | 0.69x3.33x1.62 |
| **With Auxiliary Contact (TS)** | | | |
| height x width x depth | | [mm] | - |
| | | [inches] | - |

## OVR Type 2 – Type 3 Street Lighting

This is a particular Type 2 and 3 surge protective devices meant to be installed in applications where overall dimensions are critical.
It has the Safety system integrated by default, performed by two varistors in parallel, allowing the customer to perform preventive maintenance. As soon as one of the Life status windows swap from green to red, we know the product needs to be replaced, but it still guarantees the protection.
It has IP 32 and bottom connections to guarantee the best performances in critical and humid environment.

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 15 | 5 | 1.1 | 230 | 275 | 524.775 | OVR T2-T3 N1 15-275S SL | 2CTB804500R0200 | | 0.04 |
| 2 | 15 | 5 | 1.1 | 230 | 275 | 524.775 | OVR T2-T3 N1 15-275S SL (x20) | 2CTB804500Z1200 | | 0.04 |

# OVR Type 3 surge protective devices TNS/TT 230 V networks




OVR 3N 10 275



| Technical features | | | | |
|---|---|---|---|---|
| Types | | | OVR 1N 10 275 | OVR 3N 10 275 |
| | with auxiliary contact (TS) | | – | – |
| Technology | | | Varistor | Varistor |
| **Electrical features** | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | |
| Type / test class | | | T3 / III | T3 / III |
| Protected lines | | | 1+1 | 3+1 |
| Types of networks | | | TNS / TT | TNS / TT |
| Type of current | | | AC | AC |
| Nominal voltage Un (L-N/L-L) | | [V] | 230 / 400 | 230 / 400 |
| Max. cont. operating voltage Uc | | [V] | 275 | 275 |
| Maximum discharge current Imax (8/20) | | [kA] | 10 | 10 |
| Nominal discharge current In (8/20) | | [kA] | 3 | 3 |
| Combination wave Uoc | | [kV] | 6 | 6 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kA] | 0.9 / 1.4 | 0.9 / 1.4 |
| Voltage protection level Up at 3 kA (L-N/N-PE/L-PE) | | [kA] | 0.9 / 0.9 | 0.9 / 0.9 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 334 / 440 | 334 / 440 |
| Response time | | [ns] | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 10 | 10 |
| Backup protection | Fuse (gG - gL) | [A] | ≤ 25 | ≤ 25 |
| | Circuit breaker (B or C curve) | [A] | ≤ 10 | ≤ 10 |
| Pluggable cartridge | | | No | No |
| Integrated thermal disconnector | | | Yes | Yes |
| State indicator | | | Yes | Yes |
| Safety reserve | | | No | No |
| Auxiliary contact | | | No | No |
| **Installation** | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…25 | 2.5…25 |
| | Stranded wire | [mm²] | 2.5…16 | 2.5…16 |
| Stripping length (L, N, PE) | | [mm] | 12.5 | 12.5 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | |
| Contact complement | | | – | – |
| Minimum load | | | – | – |
| Maximum load | | | – | – |
| Connection cross-section | | [mm²] | – | – |
| **Miscellaneous characteristics** | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 / -40 to +70 | -40 to +80 / -40 to +70 |
| Degree of protection | | | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 35.6 x 64.8 | 85 x 71.2 x 64.8 |
| | | [inches] | 3.35 x 1.40 x 2.55 | 3.35 x 2.80 x 2.55 |

**Where to find more:**
Coordination and wiring principals of OVR: Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

Type 3 surge protective devices shall be installed as close as possible from the sensitive equipment to protect. Tested with a 1.2/50 - 8/20 current combination wave generator, they ensure a very low protection level.

**Type 3 non-pluggable - Uc 275 V**

| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1+1 | 10 | 3 | 0.9 | 230/400 | 275 | 509208 | OVR 1N 10 275 | 2CTB813912R1000 | | 0.27 |
| 3+1 | 10 | 3 | 0.9 | 230/400 | 275 | 509215 | OVR 3N 10 275 | 2CTB813913R1000 | | 0.48 |

# Protection and safety
## OVR Plus - Autoprotected surge protective devices TNS/TT 230 V networks




**OVR PLUS N3 20**
**OVR PLUS N3 40**

5

| Technical features | | | | | | |
|---|---|---|---|---|---|---|
| Types | | | OVR Plus N1 20 | OVR Plus N1 40 | OVR Plus N3 20 | OVR Plus N3 40 |
| | with auxiliary contact (TS) | | – | – | – | – |
| Technology | | | Varistor | Varistor | Varistor | Varistor |
| **Electrical features** | | | | | | |
| Standard | | | IEC 61643-1 / EN 61643-11 | | | |
| Type / test class | | | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 1+1 | 1+1 | 3+1 | 3+1 |
| Types of networks | | | TNS / TT | TNS / TT | TNS / TT | TNS / TT |
| Type of current | | | AC | AC | AC | AC |
| Nominal voltage Un (L-N/L-L) | | [V] | 230 / 400 | 230 / 400 | 230 / 400 | 230 / 400 |
| Max. cont. operating voltage Uc | | [V] | 275 | 320 | 320 | 320 |
| Maximum discharge current Imax (8/20) | | [kA] | 20 | 40 | 20 | 40 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 20 | 5 | 20 |
| Voltage protection level Up at In (L-N/N-PE/L-PE) | | [kV] | 1.3 / - / 1.3 | 1.6 / - / 1.8 | 1.3 / 1.3 / 1.3 | 2.0 / 1.5 / 2.0 |
| Voltage protection level Up at 3 kA (L-N/N-PE/L-PE) | | [kV] | 1.1 / - / 1.1 | 1.1 / - / 1.1 | 1.1 / 1.1 / 1.1 | 1.1 / 1.1 / 1.1 |
| TOV (Temporary overvoltage) withstand Ut | (L-N: 5 s / N-PE: 200 ms) | [V] | 334 / 1200 | 334 / 1200 | 334 / 1200 | 334 / 1200 |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | 10 | 10 | 10 | 10 |
| Short-circuit withstand capability Isccr | | [kA] | 10 | 15 | 10 | 15 |
| Backup protection | Fuse (gG - gL) | [A] | integrated | integrated | integrated | integrated |
| | Circuit breaker (B or C curve) | [A] | integrated | integrated | integrated | integrated |
| Pluggable cartridge | | | No | No | No | No |
| Integrated thermal disconnector | | | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | No | No | No |
| Auxiliary contact | | | Yes (S2C-H6R / 2CDS200912R0001) | | | |
| **Installation** | | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 2.5…25 | 2.5…25 | 2.5…25 | 2.5…25 |
| | Stranded wire | [mm²] | 2.5…16 | 2.5…16 | 2.5…16 | 2.5…16 |
| Stripping length (L, N, PE) | | [mm] | 11 | 11 | 11 | 11 |
| Tightening torque (L, N, PE) | | [Nm] | 2.5 | 2.5 | 2.5 | 2.5 |
| **Auxiliary contact (TS)** | | | | | | |
| Contact complement | | | – | – | – | – |
| Minimum load | | | – | – | – | – |
| Maximum load | | | – | – | – | – |
| Connection cross-section | | [mm²] | – | – | – | – |
| **Miscellaneous characteristics** | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +70 / -25 to +55 | -40 to +70 / -25 to +55 | -40 to +70 / -25 to +55 | -40 to +70 / -25 to +55 |
| Degree of protection | | | IP20 | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 91 x 35.6 x 74.6 | 91 x 35.6 x 74.6 | 100.8 x 106.8 x 74.6 | 100.8 x 106.8 x 74.6 |
| | | [inches] | 3.58 x 1.40 x 2.94 | 3.58 x 1.40 x 2.94 | 3.97 x 4.20 x 2.94 | 3.97 x 4.20 x 2.94 |

**OVR PLUS N3 20 and OVR PLUS N3 40 for commercial and industrial applications:**

- Auto-protected: Backup miniature circuit breaker integrated and fully coordinated with the surge protective device.
- Easy installation: Fully coordinated unit with easy wiring with the complete ABB pro M modular range.
- High discharge capacity: With Imax 20 and 40 kA the OVR Plus N3 insure the protection of your low
  voltage installations and electric equipment.
- High reliability: No welding inside the module and specific thermal disconnection with the „bilame“ sensor.

**OVR PLUS N1 40 for residential applications:**

- Auto-protected: Backup miniature circuit breaker integrated and fully coordinated with the surge protective device.
- Compact: Only two modules (36 mm width), means more space and easy wiring with the complete ABB DIN rail range.
- High discharge capacity: With Imax 20 and 40 kA the OVR PLUS N1 can protect your electric equipment against high surges.
- High reliability: No welding inside the module and specific thermal disconnection.



| Type 2 autoprotected | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Poles | Max discharge current Imax 8/20 kA | Nominal discharge current In kA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
| 1+1 | 20 | 5 | 1.3 | 230/400 | 275 | 521286 | OVR PLUS N1 20 | 2CTB803701R0700 | | 0.28 |
| 1+1 | 40 | 20 | 1.8 | 230/400 | 320 | 517005 | OVR PLUS N1 40 | 2CTB803701R0100 | | 0.28 |
| 3+1 | 20 | 5 | 1.3 | 230/400 | 320 | 517081 | OVR PLUS N3 20 | 2CTB803701R0400 | | 0.84 |
| 3+1 | 40 | 20 | 2.0 | 230/400 | 320 | 517074 | OVR PLUS N3 40 | 2CTB803701R0300 | | 0.84 |

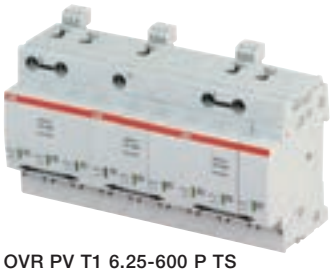
**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Protection and safety
## OVR PV surge protective devices Photovoltaic networks



| Technical features | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Types | | | – | – | OVR PV T2 40-600 P QS | OVR PV T2 40-1000 P QS | OVR PV T2 40-1000 P TWIN QS | OVR PV T2 40-1500 P QS |
| | with auxiliary contact (TS) | | OVR PV T1 6.25-600 P TS | OVR PV T1 6.25-1000 P TS | OVR PV T2 40-600 P TS QS | OVR PV T2 40-1000 P TS QS | OVR PV T2 40-1000 P TS TWIN QS | OVR PV T2 40-1500 P TS QS |
| Technology | | | Varistor | Varistor | Varistor | Varistor | Varistor | Varistor |
| **Electrical features** | | | | | | | | |
| Standard | | | UTE C 61-740-51 / prEN 50539-11 | | EN 50539-11 / UL 1449 Ed 4 | | | |
| Type / test class | | | T1 / I | T1 / I | T2 / II | T2 / II | T2 / II | T2 / II |
| Protected lines | | | 2 | 2 | 2 | 2 | 4 | 2 |
| Types of networks | | | Photovoltaic | Photovoltaic | Photovoltaic | Photovoltaic | Photovoltaic | Photovoltaic |
| Type of current | | | DC | DC | DC | DC | DC | DC |
| Nominal voltage Un (L-N/L-L) | | [V] | 600 | 1000 | 600 | 1000 | 1000 | 1500 |
| Max. cont. operating voltage Ucpv | | [V] | 600 | 1000 | 600 | 1100 | 1100 | 1500 |
| Impulse current limp (10/350) | | | 6.25 | 6.25 | 2 | 2 | 2 | 2 |
| Maximum discharge current Imax (8/20) | | [kA] | – | – | 40 | 40 | 40 | 40 |
| Nominal discharge current In (8/20) | | [kA] | 6.25 | 6.25 | 20 | 20 | 20 | 10 (EN) / 10 (UL) |
| Voltage protection level Up at In | | [kV] | 1.9 / 1.9 | 2.5 / 2.5 | 2.8 / 1.4 | 3.8 / 3.8 | 3.8 / 3.8 | 4,5 / 4,5 |
| Response time | | [ns] | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 | ≤ 25 |
| Residual current IPE | | [µA] | 75 | 75 | 10 | 75 | 75 | <30 |
| Short-circuit DC current Iscpv | | [A] | 100 | 100 | 300 | 10000 | 10000 | 10000 |
| Disconnector | Fuse | | 10AgPV (E90PV) | 10AgPV (E90PV) | no need up to 0.3 kA | no need up to 10 kA | no need up to 10 kA | no need up to 10 kA |
| | Circuit breaker | | - | - | no need up to 0.3 kA | no need up to 10 kA | no need up to 10 kA | no need up to 10 kA |
| Pluggable cartridge | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Integrated specific thermal disconnector | | | Yes | Yes | Yes | Yes | Yes | Yes |
| State indicator | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Safety reserve | | | No | No | No | No | No | No |
| Auxiliary contact | | | Yes | Yes | Yes (TS option) | Yes (TS option) | Yes (TS option) | Yes (TS option) |
| **Installation** | | | | | | | | |
| Wire range (L, | Solid wire | [mm²] | 2.5…25 | 2.5…25 | 2.5…35 | 2.5…35 | 2.5…35 | 2.5…35 |
| N, PE) | Stranded wire | [mm²] | 2.5…16 | 2.5…16 | 2.5…25 | 2.5…25 | 2.5…25 | 2.5…25 |
| Stripping length (L, N, PE) | | | 12.2 | 12.2 | 12,2 | 12,2 | 12,2 | 12,2 |
| Tightening torque (L, N, PE) | | | 2.5 | 2.5 | 2,5 | 2,5 | 2,5 | 2,5 |
| **Auxiliary contact (TS)** | | | | | | | | |
| Contact complement | | | 1 NO - 1 NC | 1 NO - 1 NC | 1 NO - 1 NC | 1 NO - 1 NC | 1 NO - 1 NC | 1 NO- 1 NC |
| Minimum load | | | 12 V DC - 10 mA | 12 V DC - 10 mA | 12 V DC - 10 mA | 12 V DC - 10 mA | 12 V DC - 10 mA | 12DC - 10mA |
| Maximum load | | | 250 V AC - 1 A | 250 V AC - 1 A | 250 V AC - 1 A | 250 V AC - 1 A | 250 V AC - 1 A | 250VAC - 1A |
| Connection cross-section | | | 1.5 | 1.5 | 1,5 | 1,5 | 1,5 | 1,5 |
| **Miscellaneous characteristics** | | | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| Humidity Rate HR | | | 93% | 93% | 95% | 95% | 95% | 95% |
| Degree of protection | | | IP20 | IP20 | IP20 | IP20 | IP20 | IP 20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | – | – | 88 x 53.4 x 65 | 88 x 53.4 x 65 | 88 x 88,33 x 65 | 88x53.4x65 |
| | | [inches] | – | – | 3.46 x 2.10 x 2.56 | 3.46 x 2.10 x 2.56 | 3.46 x 3,5 x 2.56 | 3.46x2.10x2.56 |
| with auxiliary contact (TS) | height x width x depth | [mm] | 88 x 160.2 x 65 | 88 x 160.2 x 65 | 95 x 53.4 x 65 | 95 x 53.4 x 65 | 95 x 88,33 x 65 | 95 x 53.4 x 65 |
| | | [inches] | 3.46 x 6.31 x 2.56 | 3.46 x 6.31 x 2.56 | 3.46 x 2.10 x 2.56 | 3.46 x 2.10 x 2.56 | 3.46 x 3,5 x 2.56 | 3.46 x 2.10 x 2.56 |
| **Replacement Cartridges** | | | | | | | | |
| Phase Product ID | | | OVR PV T1 625-600 C 2CTB803950R1000 | OVR PV T1 6.25-1000 C 2CTB803950R1100 | OVR PV T2 40-600 C QS 2CTB804153R3100 | OVR PV T2 40-1000 C QS 2CTB804153R3200 | OVR PV T2 40-1000 C QS 2CTB804153R3200 | OVR PV T2 40-1500 C QS 2CTB804153R3300 |
| | | | | | OVR PV MC C QS 2CTB804153R3500 | | | |




OVR PV T1 6.25-600 P TS




OVR PV T2 40-600 P QS




OVR PV T2 40-1000 P QS

Specifically designed for photovoltaic DC installations, the OVR PV family provide a safe and reliable surge and lightning protection of solar panels and converters.
The OVR PV surge protective devices comply with UTE C 61-740-51 and prEN 50539-11.

**Type 1 PV**

| Protected lines | Impulse current limp 10/350 kA | Max. discharge current Imax 8/20 kA | Nominal current In kA | Voltage protection level Up kV | Max. cont. operating voltage Ucpv V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 6.25 | - | 6.25 | 1.9 | 670 | 518361 | OVR PV T1 6.25-600 P TS | 2CTB803953R5700 | | 1.10 |
| 2 | 6.25 | - | 6.25 | 2.5 | 1000 | 518378 | OVR PV T1 6.25-1000 P TS | 2CTB803953R6700 | | 1.10 |

**Type 2 PV**

| Protected lines | Impulse current limp 10/350 kA | Max. discharge current Imax 8/20 kA | Nominal current In kA | Voltage protection level Up kV | Max. cont. operating voltage Ucpv V | Bbn 3660308 EAN | Order details Type code | Order code | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|
| 1+1 DC | 2 | 40 | 20 | 2.8/1.4 | 600 | 526502 | OVR PV T2 40-600 P QS | 2CTB804153R2800 | 0,38 |
| 1+1 DC | 2 | 40 | 20 | 2.8/1.4 | 600 | 526519 | OVR PV T2 40-600 P TS QS | 2CTB804153R2900 | 0,39 |
| 1+1 DC | 2 | 40 | 20 | 2.8/1.4 | 600 | 527318 | OVR PV T2 40-600 P QS BULK (30) | 2CTB804153Z2800 | 0,38 |
| 1+1 DC | 2 | 40 | 20 | 2.8/1.4 | 600 | 527325 | OVR PV T2 40-600 P TS QS BULK (30) | 2CTB804153Z2900 | 0,39 |
| | | | | | 600 | 526540 | OVR PV T2 40-600 C QS | 2CTB804153R3100 | 0,055 |
| | | | | | 600 | 526731 | OVR PV MC C QS | 2CTB804153R3500 | 0,055 |
| 1+1 DC | 2 | 40 | 20 | 3,8 | 1100 | 526243 | OVR PV T2 40-1000 P QS | 2CTB804153R2400 | 0,38 |
| 1+1 DC | 2 | 40 | 20 | 3,8 | 1100 | 526434 | OVR PV T2 40-1000 P TS QS | 2CTB804153R2500 | 0,39 |
| 1+1 DC | 2 | 40 | 20 | 3,8 | 1100 | 526748 | OVR PV T2 40-1000 P QS BULK (30) | 2CTB804153Z2400 | 0,36 |
| 1+1 DC | 2 | 40 | 20 | 3,8 | 1100 | 526755 | OVR PV T2 40-1000 P TS QS BULK (30) | 2CTB804153Z2500 | 0,39 |
| 2+2 DC | 2 | 40 | 20 | 3,8 | 1100 | 526779 | OVR PV T2 40-1000 P TWIN QS | 2CTB804153R3000 | 0,63 |
| 2+2 DC | 2 | 40 | 20 | 3,8 | 1100 | 526199 | OVR PV T2 40-1000 P TS TWIN QS | 2CTB804153R2300 | 0,65 |
| 2+2 DC | 2 | 40 | 20 | 3,8 | 1100 | 527295 | OVR PV T2 40-1000 P TS TWIN QS BULK (4) | 2CTB804153Z2300 | 0,65 |
| | | | | | 1100 | 526557 | OVR PV T2 40-1000 C QS | 2CTB804153R3200 | 0,055 |
| 1+1 DC | 2 | 40 | 10 | 4,5 | 1500 | 526465 | OVR PV T2 40-1500 P QS | 2CTB804153R2600 | 0,47 |
| 1+1 DC | 2 | 40 | 10 | 4,5 | 1100 | 526472 | OVR PV T2 40-1500 P TS QS | 2CTB804153R2700 | 0,48 |
| 1+1 DC | 2 | 40 | 10 | 4,5 | 1500 | 527332 | OVR PV T2 40-1500 P QS BULK (30) | 2CTB804153Z2600 | 0,47 |
| 1+1 DC | 2 | 40 | 10 | 4,5 | 1500 | 527301 | OVR PV T2 40-1500 P TS QS BULK (30) | 2CTB804153Z2700 | 0,48 |
| | | | | | 1500 | 526595 | OVR PV T2 40-1500 C QS | 2CTB804153R3300 | 0,055 |

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Protection and safety
## OVR WT surge protective devices - Wind turbine networks



| Technical features | | |
|---|---|---|
| **Types** | | |
| with auxiliary contact (TS) | | **OVR WT 3L 690 P TS** |
| **Electrical features** | | |
| Standard | | IEC 61643-11 / EN 61643-11 |
| Type / test class | | T1+2/I - II |
| Protected lines | | 3 |
| System network | | TNC-IT |
| Type of current | | a.c. 45-65Hz |
| Nominal system voltage Un | [V] | 400/690 |
| Peak repetitive voltage withstand Urp (L-PE/L-L) | [V ] | 3000 / 3400 |
| Max. cont. operating voltage Uc | [V] | 1260 / 2520 |
| Maximal discharge current Imax (8/20) | [kA] | 40 |
| Maximum impulse current Iimp (10/350) | [kA] | 2 |
| Nominal discharge current In (8/20) | [kA] | 20 |
| Follow current interrupting rating Ifi | [kA] | - |
| Voltage protection level Up at In | [kV] | 6 |
| Voltage protection level Up at 3 kA | [kV ] | 4.4 |
| Voltage protection level Up at 5 kA | | - |
| Voltage protection level Up at 10 kA | | - |
| TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms) | [V] | - |
| Uoc | | - |
| Response time | [ns] | ≤100 |
| Short-circuit withstand capability Isccr | [kA] | 50 |
| Backup protection maximum fuse (gG - gL) | [A] | ≤125 |
| rating circuit breaker (B or C curve) | [A ] | ≤125 |
| Pluggable cartridge | | Yes |
| Integrated thermal disconnector | | Yes |
| State indicator | | Yes |
| Safety reserve | | No |
| **Installation** | | |
| Wire range (L, N, PE) solid wire | [mm²] | 2.5 … 25 |
| stranded wire | [mm²] | 2.5 … 16 |
| Stripping length (L, N, PE) | [mm] | 12.5 |
| Tightening torque (L, N, PE) | [Nm] | 2.5 |
| Auxiliary contact (TS) | | - |
| Contacts information | | - |
| Min. load | | - |
| Max. load | | - |
| Connection cross-section | [mm²] | |
| **Miscellanous characteristics** | | |
| Stocking and operating temperature | [°C] | -40 to +80 |
| Degree of protection | | IP 20 - Indoor |
| Fire resistance according to UL 94 | | V0 |
| **Dimensions** | | |
| height x width x depth | [mm] | |
| | [inches] | |
| **Dimensions with auxilary contact (TS)** | | |
| height x width x depth | [mm] | 100 x 178 x 65 |
| | [inches] | 3.94 x 7.01 x 2.56 |
| **Replacement Cartridges** | | |
| Phase Product ID | | OVR T2 40-440 C / 2CTB803854R0400 |



2CTC435040F1701

OVR WT 3L 690 P TS

Due to their height, wind turbines have especially high exposure to lightning, they need high capacity and reliable lightning and surge protection.
The OVR WT family takes into consideration the specificity of wind installations with a high peak repetitive voltage withstand (Urp up to 3 kV) ensure a safe protection to Wind applications.
It can be DIN mounted with the OVR.

**Type 1+2 WT**

| Protected lines | Impulse current limp 10/350 kA | Max. discharge current Imax 8/20 kA | Nominal current In kA | Voltage protection level Up kV | Max. cont. operating voltage Ucpv V | Bbn 366030 | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 2 | 40 | 20 | 6 | 400/690 | 518507 | OVR WT 3L 690 P TS | 2CTB235402R0000 | | 1.67 |

# Protection and safety
## OVR TC surge protective devices Data networks

| Technical features | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Types | | | OVR TC 06V P | OVR TC 12V P | OVR TC 24V P | OVR TC 48V P | OVR TC 200V P | OVR TC 200FR P |
| | with auxiliary contact (TS) | | – | – | – | – | – | – |
| Connection configuration | | | Serial | Serial | Serial | Serial | Parallel | Serial |
| **Electrical features** | | | | | | | | |
| Standard | | | IEC/EN 61643-21 | | | | | |
| Type / test class | | | C2 | C2 | C2 | C2 | C2 | C2 |
| Protected lines | | | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair | 1 pair |
| Types of networks | | | MIC/T2 - RS422/485 | RS232 | LS - 4/20mA | RNIS | ADSL | RTC / Analogue |
| Type of current | | | DC | DC | DC | DC | DC | DC |
| Nominal voltage Un | | [V] | 6 | 12 | 24 | 48 | 200 | 200 |
| Max. cont. operating voltage Uc | | [V] | 7 | 14 | 27 | 53 | 220 | 220 |
| Maximum discharge current Imax (8/20) | | [kA] | 10 | 10 | 10 | 10 | 10 | 10 |
| Nominal discharge current In (8/20) | | [kA] | 5 | 5 | 5 | 5 | 5 | 5 |
| Voltage protection level Up at In | | [V] | 15 | 20 | 35 | 70 | 700 | 400 |
| Response time | | [ns] | 1 | 1 | 1 | 1 | 100 | 1 |
| Rated current IL | | [mA] | 140 | 140 | 140 | 140 | - | 140 |
| Series resistance | | [Ω] | 10 | 10 | 10 | 10 | - | 10 |
| Cut frequency | | [MHz] | 10 | 2 | 4 | 6 | 100 | 3 |
| Pluggable cartridge | | | Yes | Yes | Yes | Yes | Yes | Yes |
| State indicator | | | - | - | - | - | - | - |
| Safety reserve | | | No | No | No | No | No | No |
| Auxiliary contact | | | No | No | No | No | No | No |
| **Installation** | | | | | | | | |
| Wire range (L, N, PE) | Solid wire | [mm²] | 1.5 / 2.5 | 1.5 / 2.5 | 1.5 / 2.5 | 1.5 / 2.5 | 1.5 / 2.5 | 1.5 / 2.5 |
| | Stranded wire | [mm²] | - | - | - | - | - | - |
| Stripping length (L, N, PE) | | [mm] | 6 / 7 | 6 / 7 | 6 / 7 | 6 / 7 | 6 / 7 | 6 / 7 |
| Tightening torque (L, N, PE) | | [Nm] | 0.2 / 0.4 | 0.2 / 0.4 | 0.2 / 0.4 | 0.2 / 0.4 | 0.2 / 0.4 | 0.2 / 0.4 |
| **Auxiliary contact (TS)** | | | | | | | | |
| Contact complement | | | – | – | – | – | – | – |
| Minimum load | | | – | – | – | – | – | – |
| Maximum load | | | – | – | – | – | – | – |
| Connection cross-section | | | – | – | – | – | – | – |
| **Miscellaneous characteristics** | | | | | | | | |
| Stocking and operating temperature | | [°C] | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 | -40 to +80 |
| Degree of protection | | | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 |
| Fire resistance according to UL 94 | | | V0 | V0 | V0 | V0 | V0 | V0 |
| Dimensions | height x width x depth | [mm] | 85 x 12 x 64 | 85 x 12 x 64 | 85 x 12 x 64 | 85 x 12 x 64 | 85 x 12 x 64 | 85 x 12 x 64 |
| | | [inches] | 8.67 x 0.47 x 1.57 | 8.67 x 0.47 x 1.57 | 8.67 x 0.47 x 1.57 | 8.67 x 0.47 x 1.57 | 8.67 x 0.47 x 1.57 | 8.67 x 0.47 x 1.57 |
| **Replacement Cartridges** | | | | | | | | |
| | | | OVR TC 06V C , 2CT-B804821R0000 | OVR TC 12V C 2CT-B804821R0100 | OVR TC 24V C 2CT-B804821R0200 | OVR TC 48V C 2CT-B804821R0300 | OVR TC 200V C 2CT-B804821R0400 | OVR TC 200FR C 2CT-B804821R0500 |




OVR TC 200FR P




Base OVR TC RJ 45

The OVR TC family offers a reliable surge protection to dataline networks for datacenters, water treatment installations or wind turbine installations.
With the RJ11 and RJ45 bases they allow a flexible and easy installation.

**Dataline protection modules**

| Protected lines | Max. discharge current Imax 8/20 kA | Nominal / rated current In/$I_L$ kA/mA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 pair | 10 | 5 / 140 | 15 | 6 | 7 | 515230 | OVR TC 06V P | 2CTB804820R0000 | | 0.07 |
| 1 pair | 10 | 5 / 140 | 20 | 12 | 14 | 515247 | OVR TC 12V P | 2CTB804820R0100 | | 0.07 |
| 1 pair | 10 | 5 / 140 | 35 | 24 | 27 | 515254 | OVR TC 24V P | 2CTB804820R0200 | | 0.07 |
| 1 pair | 10 | 5 / 140 | 70 | 48 | 53 | 515261 | OVR TC 48V P | 2CTB804820R0300 | | 0.07 |
| 1 pair | 10 | 5 / – | 700 | 200 | 220 | 515278 | OVR TC 200V P | 2CTB804820R0400 | | 0.07 |
| 1 pair | 10 | 5 / 140 | 400 | 200 | 220 | 515285 | OVR TC 200FR P | 2CTB804820R0500 | | 0.07 |

**Bases**

| Protected lines | Max. discharge current Imax 8/20 kA | Nominal / rated current In/$I_L$ kA/mA | Voltage protection level Up kV | Nominal voltage Un V | Max. cont. operating voltage Uc V | Bbn 3660308 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg |
|---|---|---|---|---|---|---|---|---|---|---|
| – | – | – | – | – | – | 515605 | BASE OVR TC RJ45 | 2CTB804840R1100 | | 0.07 |



**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
For back-up protection:
S200 MCBs p.2/16
Fuses and fuseholders p.5/94

# Protection and safety
## OVRH series product range






| Name | OVRHSP (200, 240, 300, 400) | OVRHSP (120, 160) | OVRHSP (60, 80, 100) | OVRHSR (120, 160) |
|---|---|---|---|---|
| **SPD Type** | Type 1 | Type 1 | Type 1 | Type 1 |
| **Certifications** | UL 1449 and CE | UL 1449 and CE | UL 1449 and CE | UL 1449 and CE |
| **Surge Ratings** | 200, 240, 300, 400kA per phase | 120, 160kA per phase | 60, 80, 100kA per phase | 120, 160kA per phase |
| **LEDs** | Yes | Yes | Yes | Yes |
| **Dry Relay Contacts** | Standard | Standard | Optional | Standard |
| **EMI Filter** | Optional | Optional | Optional | Optional |
| **Surge Counter** | Optional | Optional | Not available | Not available |
| **Warranty** | 5 years | 5 years | 5 years | 5 years |







| | OVRHTE | OVRHS3 | OVRHS3U | OVRHS3-F1 | OVRHLD |
|---|---|---|---|---|---|
| | Type 2 | Type 1 and Type 2 | Type 1 and Type 2 | Type 2 | Type 1 |
| | UL 1449 | UL 1449 | UL 1449 | UL 1449 | UL 1449 |
| | 40kA per phase | 40kA per phase | 40kA per phase | 40, 60, 80kA per phase | 20, 25, 30kA per phase |
| | Yes | Yes | Yes | Yes | Yes |
| | Optional | Not available | Optional | Not available | Not available |
| | Optional | Not available | Not available | Not available | Not available |
| | Not available | Not available | Not available | Not available | Not available |
| | 3 years | 1 year | 1 year | 1 year | 1 year |

# Protection and safety
## OVRHSP/OVRHSR heavy duty for service entrance applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
Fail-safe design with individually fused Metal Oxide Varistors (MOVs) eliminating single point failure, protecting against both overcurrent and overvoltage events.
200kAIC short circuit rating permits direct bus connection to most electrical services.
Low let through voltage ensured by the lowest possible impedance path to ground and equal current sharing during surge events.
All weather sealed, powder-coated NEMA 4/IP65 housing is designed for any orientation and indoor/outdoor applications.
5-year standard warranty.

| Technical features | |
|---|---|
| **Electrical** | |
| Nominal discharge current rating (I-n) | 10kA (60–100) 20kA (120–400) |
| Operating frequency | 47–63Hz |
| Connection method | Parallel to electrical distribution system |
| Modes of protection | All modes (L-N, L-G, N-G, L-L) |
| Fault rating (SCCR) | 200kAIC–no upstream over-current protection device (breaker or fuse) required |
| Response time | Less than 1 nanosecond |
| Standard monitoring (120–400kA) | Status indicator lights (one per phase), Standard dry (Form “C”) relay contacts, Audible alarm with silence button |
| **Mechanical** | |
| Weight | 60, 80, 100kA: 4.5 kg (10 lbs.)<br>120, 160kA: 9 kg (20 lbs.)<br>200, 240, 300, 400kA: 18 kg (40 lbs.) |
| Enclosure type | Powder coated, impact-resistance steel, weather-proof NEMA 4 |
| Installation location | Indoor/outdoor |
| Mounting method | Dual mounting flanges |
| Operating environment | -40° to +70°C (-40° to +185°F) |
| Altitude | Up to 4000 m (13,000 ft.) |
| Product design | Parallel design with individually fused MOVs |
| **Regulatory** | |
| UL 1449 4th Edition Type | Type 1 |
| UL 1283 | Yes |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | ETL: 60–100kA models<br>UL: 120–400kA models<br>CE: 120–400kA models |









## OVRHSP and OVRHSR

| Configuration | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 120V | | OVRHSP(SR)xxx1201P | | | | |
| 1-phase, 2-wire + ground | 240V | | OVRHSP(SR)xxx2401P | | | | |
| 2-phase, 3-wire + ground | 120/240V | | OVRHSP(SR)xxx1202S | | | | |
| 3-phase Wye, 4-wire + ground | 120/208V | | OVRHSP(SR)xxx1203Y | | | | |
| 3-phase Wye, 4-wire + ground | 220/380V | | OVRHSP(SR)xxx2203Y | | | | |
| 3-phase Wye, 4-wire + ground | 240/415V | | OVRHSP(SR)xxx2403Y | | | | |
| 3-phase Wye, 4-wire + ground | 277/480V | | OVRHSP(SR)xxx2773Y | | | | |
| 3-phase Wye, 4-wire + ground | 347/600 | | OVRHSP(SR)xxx3473Y* | | | | |
| 3-phase High-Leg, 4-wire + ground | 120/240V | | OVRHSP(SR)xxx2403H | | | | |
| 3-phase Delta, 3-wire + ground | 240V | | OVRHSP(SR)xxx2403D | | | | |
| 3-phase Delta, 3-wire + ground | 380V | | OVRHSP(SR)xxx3803D* | | | | |
| 3-phase Delta, 3-wire + ground | 480V | | OVRHSP(SR)xxx4803D* | | | | |
| 3-phase Delta, 3-wire + ground | 600V | | OVRHSP(SR)xxx6003D* | | | | |

OVRHSP: Where “xxx” can be 60, 80, 100, 120, 160, 200, 240, 300 or 400
OVRHSR: Where “xxx” can be 120 or 160
*Voltages not available with 60, 80 or 100kA units

| Available options<br>Add applicable suffix to end of numbers | Model number |
|---|---|
| Surge counter (SP 120–400kA only) | 2 |
| Transient filter* (meets UL 1283) (All models) | 3 |
| Stainless steel enclosure (All models) | 4 |
| Transient filter* and surge counter (SP 120–400kA only) | B |
| Transient filter* and stainless steel enclosure (All models) | C |
| Surge counter and stainless steel enclosure (SP 120–400kA only) | D |
| Transient filter*, surge counter and stainless steel enclosure (SP 120–400kA only) | T |

*Not recommended when using telecommunication rectifiers.

## OVRHSR stand alone option

(To be ordered as a separate item)

| | Bbn 8012542<br>EAN | Order details<br>Type code | Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Flush-mount plate kit | | OVRHSR-FMP-120/160 | | | | |

# Protection and safety
## OVRHTE medium duty for distribution applications




Listed to UL 1449 4th edition for Type 2 SPD applications.
Protects facilities and equipment against the harmful effects of lightning strikes and internally generated electrical transients.
Includes pre-wired pigtail conductors to streamline installation.
Features internal copper bus conduction path to minimize system impedances, lowering clamping voltage and increasing protection.

| Technical features | |
|---|---|
| **Electrical** | |
| Nominal discharge current rating (I-n) | 20kA |
| Operating frequency | 47–63Hz |
| Connection methods | Parallel to load (shunt)<br>609.6mm (24") 5mm² (#10 AWG) wires<br>through 20A (max) breaker |
| Modes of protection | L-L, L-N, L-G, N-G |
| Fault rating (SCCR) | 65kAIC–upstream<br>over-current protection device (breaker or fuse required) |
| Response time | Less than 1 nanosecond<br>(one per phase) |
| Standard monitoring | LED status indicator lights |
| **Mechanical** | |
| Weight | 5.8 kg (12.7 lbs.) |
| Enclosure type | NEMA 4X fiberglass-reinforced polyester (FRP) surface-mount, non-removable cover |
| Installation location | Indoor/outdoor |
| Mounting methods | Dual mounting flanges |
| Operating environment | 40° to +60°C (-40° to +140°F) |
| Altitude | Up to 5000 m (16,400 ft.) |
| Product design | No internal fusing |
| **Regulatory** | |
| UL 1449 4th edition type | Type 2 |
| UL 1283 | Yes |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | UL |




| Configuration | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 120V | | OVRHTExx1201P | | | | |
| 1-phase, 2-wire + ground | 240V | | OVRHTExx2401P | | | | |
| 2-phase, 3-wire + ground | 120/240V | | OVRHTExx1202S | | | | |
| 3-phase Wye, 4-wire + ground | 120/208V | | OVRHTExx1203Y | | | | |
| 3-phase Wye, 4-wire + ground | 220/380V | | OVRHTExx2203Y | | | | |
| 3-phase Wye, 4-wire + ground | 240/415V | | OVRHTExx2403Y | | | | |
| 3-phase Wye, 4-wire + ground | 277/480V | | OVRHTExx2773Y | | | | |
| 3-phase Wye, 4-wire + ground | 347/600V | | OVRHTExx3473Y | | | | |
| 3-phase Hi-Leg, 4-wire + ground | 120/240V | | OVRHTExx2403H | | | | |
| 3-phase Delta, 3-wire + ground | 240V | | OVRHTExx2403D | | | | |
| 3-phase Delta, 3-wire + ground | 380V | | OVRHTExx3803D | | | | |
| 3-phase Delta, 3-wire + ground | 480V | | OVRHTExx4803D | | | | |

Model number: Where “xx” can be 25, 50, 80, or 100

| Available option | Model number* |
|---|---|
| Dry Form “C” relay contacts | 5 |

*Add applicable suffix to the end of Model number.
Example: OVRHTE251201P5

# Protection and safety
## OVRHS3 medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
Individual fusing for each Metal Oxide Varistors (MOVs).
LED indicates proper functioning of L-N and N-G MOVs

| Technical features | |
|---|---|
| Electrical | |
| Nominal discharge current rating (I-n) | 20kA |
| Operating frequency | 47–63Hz |
| Connection methods | Parallel to load (shunt)<br>2mm² (#14 AWG) wires |
| Modes of protection | Model dependent |
| Fault rating (SCCR) | 100kAIC |
| Response time | Less than 1 nanosecond<br>(one per phase) |
| Standard monitoring | LED status indicator lights |
| Mechanical | |
| Weight | .9 kg (2 lbs.) |
| Enclosure type | NEMA 1, non-metallic |
| Installation location | Indoor |
| Mounting method | 12.7mm (1/2")–14 NPT thread<br>(Aluminum bracket optional) |
| Operating environment | -40° to +80°C (-40° to +176°F) |
| Altitude | Up to 5000 m (16,400 ft.) |
| Product design | Individually fused MOVs |
| Regulatory | |
| UL 1449 4th edition type | Type 1 and Type 2 |
| UL 1283 | No |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | UL |



## Type 1

| Configuration | kA per phase | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 40kA | 120V | | OVRHS3401201P | | | | |
| 2-phase, 3-wire + ground | 40kA | 120/240V | | OVRHS3401202S | | | | |
| 3-phase Wye, 4-wire + ground | 40kA | 120/208V | | OVRHS3401203Y | | | | |

## Type 2

| Configuration | kA per phase | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 40kA | 230V | | OVRHS3402301P | | | | |
| 1-phase, 2-wire + ground | 40kA | 480V | | OVRHS3404801P | | | | |
| 3-phase Wye, 4-wire + ground | 40kA | 277/480V | | OVRHS3402773Y | | | | |
| 3-phase Wye, 4-wire + ground | 40kA | 230/400V | | OVRHS3402303Y | | | | |
| 3-phase High-Leg, 4-wire + ground | 40kA | 120/240V | | OVRHS3401203H | | | | |
| 3-phase Delta, 3-wire + ground | 40kA | 480V | | OVRHS3404803D | | | | |
| 3-phase Delta, 3-wire + ground | 40kA | 240V | | OVRHS3402403D | | | | |

| Available option<br>Add applicable suffix to end of numbers | Model number |
|---|---|
| Mounting bracket | 6 |

# Protection and safety
## OVRHS3U medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
Individual fusing for each Metal Oxide Varistors (MOVs).
LED indicates proper functioning of L-N and N-G MOVs

| Technical features | |
|---|---|
| **Electrical** | |
| Nominal discharge current rating (I-n) | 20kA |
| Operating frequency | 47–63Hz |
| Connection methods | Parallel to load (shunt)<br>2mm2 (#14 AWG) wires |
| Modes of protection | Model dependent |
| Fault rating (SCCR) | 100kAIC |
| Response time | Less than 1 nanosecond<br>(one per phase) |
| Standard monitoring | LED status indicator lights |
| **Mechanical** | |
| Weight | .9 kg (2 lbs.) |
| Enclosure type | NEMA 1, non-metallic |
| Installation location | Indoor |
| Mounting method | 12.7mm (1/2")–14 NPT thread<br>(Aluminum bracket optional) |
| Operating environment | -40° to +80°C (-40° to +176°F) |
| Altitude | Up to 5000 m (16,400 ft.) |
| Product design | Individually fused MOVs |
| **Regulatory** | |
| UL 1449 4th edition type | Type 1 and Type 2 |
| UL 1283 | Only for model number<br>OVRHS3U802402SR |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | UL |



## Type 1

| Configuration | kA per phase | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 40kA | 120V | | OVRHS3U401201P | | | | |
| 2-phase, 3-wire + ground | 40kA | 120/240V | | OVRHS3U401202S | | | | |
| 3-phase Delta, 4-wire + ground | 40kA | 240V | | OVRHS3U402403D | | | | |
| 3-phase, 4-wire + ground | 40kA | 120/208V | | OVRHS3U402083Y | | | | |

## Type 2

| Configuration | kA per phase | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 1-phase, 2-wire + ground | 40kA | 240V | | OVRHS3U402401P | | | | |
| 2-phase, 3-wire + ground (Contains UL 1283 listed filter, Dry relay contacts not available.) | 80kA | 120/240V | | OVRHS3U802402SR | | | | |
| 3-phase Delta, 3-wire + ground | 40kA | 480V | | OVRHS3U404803D | | | | |
| 3-phase High-Leg, 4-wire + ground | 40kA | 120/240V | | OVRHS3U401202H | | | | |
| 3-phase, 4-wire + ground | 40kA | 277/480V | | OVRHS3U402773Y | | | | |
| 3-phase, 4-wire + ground | 40kA | 230/400V | | OVRHS3U402303Y | | | | |

| Available options<br>(Not available on OVRHS3U802402SR unit) | Model number* |
|---|---|
| 1 set of dry relay contacts (all models) | 5 |
| 1 set of dry relay contacts + mounting bracket<br>(only on OVRHS3U402401P and OVRHS3U402303Y models) | P |

# Protection and safety
## OVRHS3-F1 medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 2 SPD applications.
Multiple Metal Oxide Varistors (MOVs) with individual and overcurrent protection.
LED indicates proper functioning of MOVs

| Technical features | |
|---|---|
| **Electrical** | |
| Nominal discharge current rating (I-n) | 10kA |
| Operating Frequency | 50-60Hz |
| Connection Methods | 2mm2 (#14 AWG) wires<br>30A max breaker |
| Modes of protection | L-L, L-N, L-G, N-G |
| Fault rating (SCCR) | 100kAIC |
| Response time | Less than 1 nanosecond<br>(one per phase) |
| Standard monitoring | LED status indicator lights |
| **Mechanical** | |
| Weight | .9 kg (2 lbs.) |
| Enclosure type | NEMA 1, Non-metallic |
| Installation location | Indoor |
| Mounting method | 12.7mm (1/2")–14 NPT thread<br>(Aluminum bracket optional) |
| Operating environment | -40° to +80°C (-40° to +176°F) |
| Altitude | Up to 5000 m (16,400 ft.) |
| Product design | Individually fused MOVs |
| **Regulatory** | |
| UL 1449 4th edition type | Type 2 |
| UL 1283 | No |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | UL |

| Configuration | kA per phase | Voltage | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 2-phase, 3-wire + ground | 80kA | 120/240V | | OVRHS3801202SF1 | | | | |
| 2-phase, 3-wire + ground | 60kA | 120/240V | | OVRHS3601202SF1 | | | | |
| 2-phase, 3-wire + ground | 40kA | 120/240V | | OVRHS3401202SF1 | | | | |

### Stand alone option

(To be ordered as a separate item)

| | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Flush-Mount Plate Kit | | OVRHS322FMP | | | | |

# Protection and safety
## OVRHLD light duty for AC applications



Listed by ETL to UL 1449 4th edition for Type 1 SPD applications.
Multiple Metal Oxide Varistors (MOVs), with individual current fusing and thermal disconnects for each MOV.
LED indicates proper functioning of L-N MOVs.

| Technical features | |
|---|---|
| Electrical | |
| Nominal discharge current rating (I-n) | 10kA |
| Operating frequency | 47–63Hz |
| Connection methods | Parallel to load (shunt)<br>457.2 mm (18") 2mm2 (#14 AWG) wires<br>Direct connect or breaker |
| Modes of protection | L-N, L-G, N-G |
| Fault rating (SCCR) | 65kAIC |
| Response time | Less than 1 nanosecond |
| Standard monitoring | LED status indicator lights<br>(one per phase) |
| Mechanical | |
| Weight | .5 kg (1 lb.) |
| Enclosure type | NEMA 1, non-metallic |
| Installation location | Indoor |
| Mounting method | NPS thread and aluminum bracket |
| Operating environment | -40° to +80°C (-40° to +176°F) |
| Altitude | Up to 5000 m (16,400 ft.) |
| Product design | Individually fused MOVs<br>Overcurrent fusing<br>Thermal fusing |
| Regulatory | |
| UL 1449 4th edition type | Type 1 |
| UL 1283 | No |
| IEEE C62.41.1, .2, C62.45 | Yes |
| Listed by | ETL |

| Configuration | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| xxkA, yyyV, L-N, L-G (1 LED) | | OVRHLDxx-yyy-1 | | | | |
| xxkA, yyyV, L1-N, L2-N (2 LEDs) | | OVRHLDxx-yyy-2 | | | | |
| xxkA, yyyV, L1-G, L2-G (2 LEDs) | | OVRHLDxx-yyy-3 | | | | |
| xxkA, yyyV, L1-G, N-G (1 LED) | | OVRHLDxx-yyy-4 | | | | |
| xxkA, yyyV, L-N, L-G (2 LEDs) | | OVRHLDxx-yyy-5 | | | | |
| xxkA, yyyV, L-N (1 LED) | | OVRHLDxx-yyy-6 | | | | |
| xxkA, yyyV, L-G (1 LED) | | OVRHLDxx-yyy-7 | | | | |
| xxkA, yyyV, N-G (0 LED) | | OVRHLDxx-yyy-8 | | | | |
| xxkA, yyyV, L1-L2 (1 LED | | OVRHLDxx-yyy-9 | | | | |

Model number: Where "xx" can be 20, 25 or 30 and "yyy" can be 120, 127, 230, or 277
Description: Where "xx" can be 20, 25 or 30 and "yyy" can be 120, 127, 230, or 277

| Available option | Model number* |
|---|---|
| Mounting bracket | 6 |



Accessory for Cartridge Lock

## Accessory for Cartridge Lock

This accessory can be fitted into the front of the socket of the SPD of the QS and PV range (for other families please consult us), QS and PV range, to guarantee an even higher withstand to vibrations and shocks, it reinforces mechanical lock between the cartridges and the socket (they are already locked by the pins in the back of the cartridge). It's recommended for stressful environments as the nazelle of the wind turbines.
It's sold on packs of 50.

| | Bbn 3660308 | Order details | | Price 1 piece | Weight 1 piece |
|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg |
| Accessory for Cartridge Lock (x50) | | | 2CTB814355Z1200 | | |





Accessory for Auxiliary contact lock

## Accessory for Auxiliary contact lock

This accessory can be fitted into the top of the auxiliary contact module and guarantees an even higher withstand to stressful environments. It reinforces the mechanical lock between the auxiliary contact module and the socket of the SPD. It's recommended in environments where the cables of the auxiliary contact can suffer pulls due to the limited length of the auxiliary cables that restrict any potential movements.
It's sold on packs of 50. It can not be used on single pole devices. Please order it for multipole versions.

| | Bbn 3660308 | Order details | | Price 1 piece | Weight 1 piece |
|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg |
| Accessory for Auxiliary contact lock (x50) | | | 2CTB814355R2700 | | |

## Label for Surge Protected Installations

This label allows the user to identify the panels where surge protection devices are fitted. It's meant to be used in the inside of the panel door and clearly states that the cartridges need to be removed to perform insulation tests. It's sold in packs of 100.

| | Bbn 3660308 | Order details | | Price 1 piece | Weight 1 piece |
|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg |
| Label for Surge Protected Installations (x 100) | | | 2CTB813860R1500 | | |



Busbar

## Bus bar

For TNC, IT, TNS or TT systems using single pole Type 1 SPDs assembled together, we have 2 different bus bars than can be used, as listed here below.
For TNS, TT (1Ph+N or 3Ph+N) or TNC (3Ph) systems for Type 1+2, Type 2, Type 2+3 SPDs, please refer to the "Busbar and accessories for MCBs S200, SN 201, RCDs F200 and DS 200 series".

| | Bbn 3660308 | Order details | | Price 1 piece | Weight 1 piece |
|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg |
| Busbar for Type 1, TT/TNS 3+1 configurations | 516091 | | 2CTB815102R0400 | | 0.03 |
| Busbar for Type 1, TNC or IT 3-0 configurations | 524751 | | 2CTB815141R0700 | | 0.03 |

# New DS202C.
# Protection with unrivalled compactness.

With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50% of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro *M* compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.
**www.abb.com**





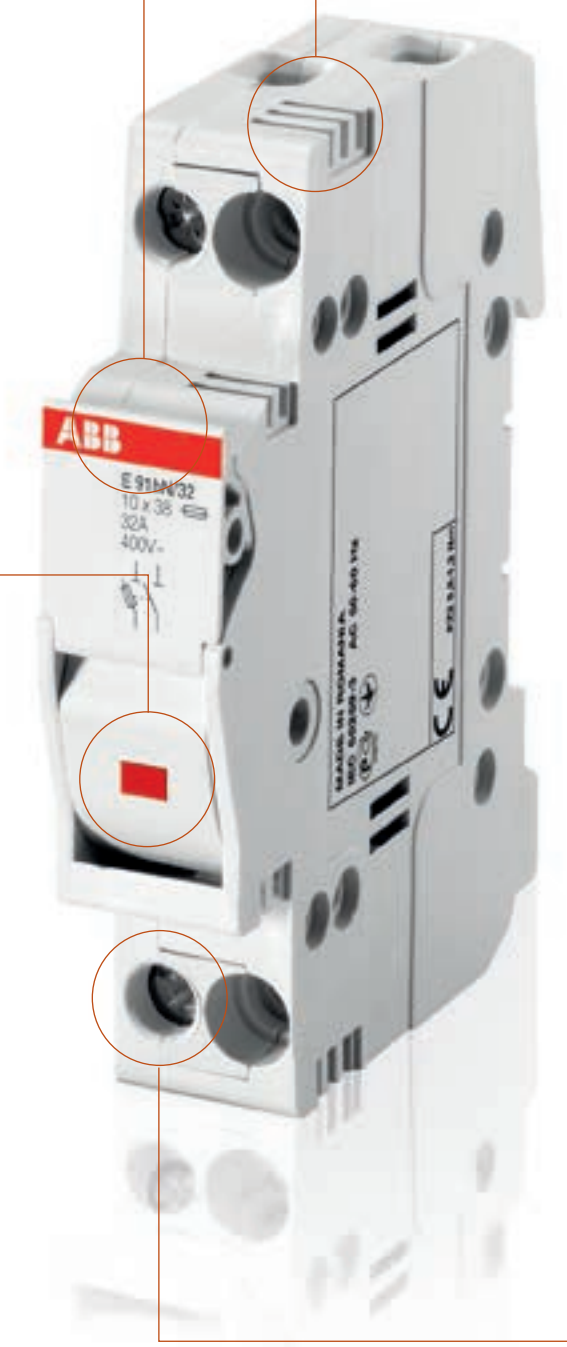


# E 90. Uncompromising performance
## A safe and smart range designed for quick, flexible and error-proof installation



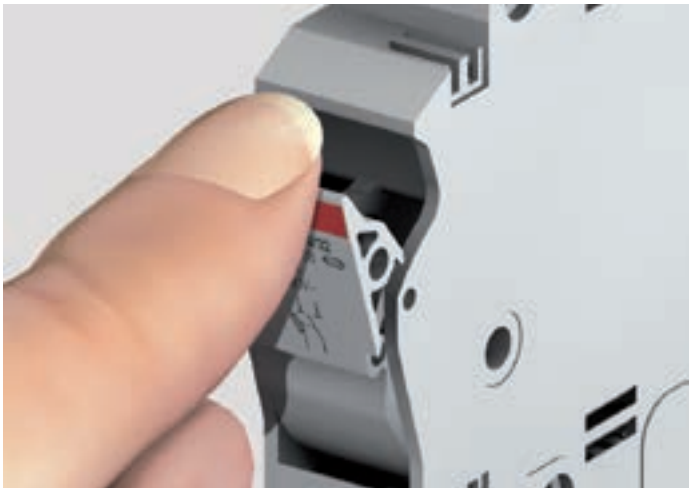
### Compactness
When open, the drawer projection is only 17 mm more than in the normal position.

### Reliability
Venting grooves and cooling chambers improve heat dissipation even in multiple-pole configurations.

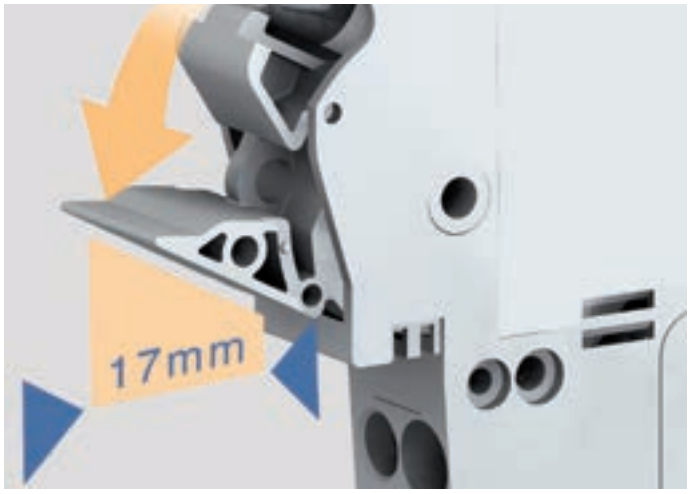



### Completeness
The fuse tripping can be easily displayed, thanks to the special blown fuse indicator light.

### Universal use
Screw holes have increased diameter to accomodate insulated screwdrivers and electric screwdrivers.



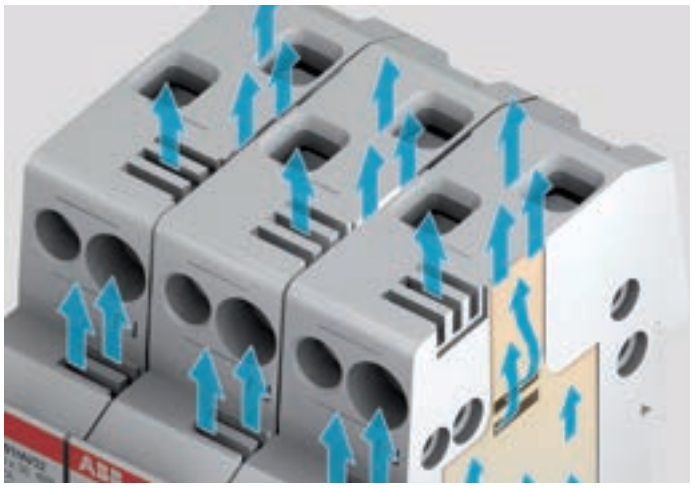
Fuseholder profile has been designed for maximum ease of use: the 90° flip hinge with ergonomic knob, makes the replacement of fuses easier even in small spaces or when wearing protective gloves.




The compact dimensions enable to close the switchboard door even when the fuseholder is open, thus ensuring total safety during maintenance.



With the Prozidriv PZ2 screws tightening can be performed by exerting less torque than conventional screws, and the same electric screwdriver can be used for all terminals.
Moreover, the PS connection busbars facilitate the connecting operations, making the wiring both simple and safe and providing complete integration with S 200 and SN 201 System pro *M* compact® circuit-breakers.



Venting grooves and cooling chambers improve heat dissipation even in multiple-pole configurations.
The reduced operating temperature inside fuseholders ensures durability and reliability of the devices over time.

# Protection and safety
## E 90 fuse switch disconnectors




E 90

5

| Technical features | | | | | |
|---|---|---|---|---|---|
| **Type** | | **E 90/20** | | **E 90/32** | |
| Rated current | A | 20 | | 32 | |
| Type of current | | a.c. | | | |
| Fuse | [mm] | 8 x 31 | | 10 x 38 | |
| Max power dissipation accepted | [W] | 2.5 | | 3 | |
| Rated frequency | [Hz] | 50-60 | | | |
| Tightening torque | [Nm] | PZ2 2-2.5 | | | |
| Protection degree | | IP20 | | | |
| Terminals' section | [mm²] | 25 | | | |
| Cross section rigid copper conductors | [mm²] | 1.5-25 | | | |
| Cross section stranded copper conductors | [mm²] | 1.5-16 | | | |
| Operating temperature | [°C] | -5/+40 ① | | | |
| Storage temperature | [°C] | -25/+70 ② | | | |
| Altitude | [m] | 2000 | | | |
| Voltage range for LED indicator light | | 24-1000 AC/DC (only s version) | | | |
| Padlockable (when open) | | ■ | | ■ | |
| Sealable (when closed) | | ■ | | ■ | |
| **IEC 60947-3** | | | | | |
| Utilization category | | AC-22B | AC-20B | AC-22B | AC-20B |
| Markings | [V] | 400 | 690 | 400 | 690 |

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical distribution in buildings - Technical details
② for more than 24h max temperature is +55 °C

### Shock and vibration

Vibration withstand on the 3 main axis:
- Sinusoidal vibration testing according to IEC 60068-2-6: 2 to 13 Hz x = 1 mm peak; 13 to 100 Hz y = 0.7 g peak
- Random vibration testing according to IEC 61373: Category 1 Class B

Shock withstand
- Shock testing according to IEC 60068-2-27 : 15 g / 11 ms / 18 shocks
- Shock testing according to IEC 61373: Category 1 Class B

| Materials | | |
|---|---|---|
| Plastic parts | Case: | Material PA 6 +30% glass fibre |
| | | Self extinguishing class: V2 (UL94) |
| | | Temperature resistance: 130 °C |
| | Opening handle | Material PA 66 +25% glass fibre |
| | | Self-extinguishing class V0 (UL94) |
| | | Temperature resistance: 140 °C |
| Metal parts | Clips | Silver plated copper |
| | Clip spring | Stainless steel |
| | Terminals | Galvanized steel |

The E 90 series is environmental friendly and protects the health of people: all used materials are conform to the RoHS and REACH directives and they completely exclude hazardous substances and halogen.

**Where to find more:**
Utlization categories of E 90, Protection and safety technical details for E 90: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 9F gG cylindrical fuses p.5/103
E 9F aM cylindrical fuses p.5/107




E 92

## E 90 fuse switch disconnectors

E 90 series fuse switch disconnectors are designed for switching circuits under load, providing protection against short circuits and overloads. The case is made of self-extinguishing thermoplastic material resistant to high temperatures (all materials are UL listed) while the contact clips are in silver plated copper.

E 90 fuse switch disconnectors can be sealed or padlocked to ensure operator safety during maintenance. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not. For easy and quick installation E 90 range is totally compatible with connecting bars, terminals and caps of S 200 MCBs.

Thanks to cURus approval, they can be installed in UL certified machines.




E 94

**E 90 fuse switch disconnectors for 10.3 x 38 mm fuses (AC-22B)**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 | 32 | 1 | 009238 | E 91/32 | 2CSM200923R1801 | | 0.061 | 6 |
| 1 | 32 | 1 | 024835 | E 91/32s | 2CSM202483R1801 | | 0.062 | 6 |
| 1+N | 32 | 2 | 008934 | E 91N/32 | 2CSM200893R1801 | | 0.130 | 3 |
| 1+N | 32 | 2 | 515036 | E 91N/32s | 2CSM251503R1801 | | 0.132 | 3 |
| 2 | 32 | 2 | 008835 | E 92/32 | 2CSM200883R1801 | | 0.122 | 3 |
| 2 | 32 | 2 | 514930 | E 92/32s | 2CSM251493R1801 | | 0.132 | 3 |
| 3 | 32 | 3 | 047537 | E 93/32 | 2CSM204753R1801 | | 0.183 | 2 |
| 3 | 32 | 3 | 020639 | E 93/32s | 2CSM202063R1801 | | 0.184 | 2 |
| 3+N | 32 | 4 | 047339 | E 93N/32 | 2CSM204733R1801 | | 0.252 | 1 |
| 3+N | 32 | 4 | 514831 | E 93N/32s | 2CSM251483R1801 | | 0.255 | 1 |
| 4 | 32 | 4 | 047230 | E 94/32 | 2CSM204723R1801 | | 0.244 | 1 |
| 4 | 32 | 4 | 020530 | E 94/32s | 2CSM202053R1801 | | 0.248 | 1 |

s: version with blown fuse indicator light

**E 90 fuse switch disconnectors for 8.5 x 31.5 mm fuses (AC-22B)**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 009832 | E 91/20 | 2CSM200983R1801 | | 0.061 | 6 |
| 1 | 20 | 1 | 024231 | E 91/20s | 2CSM202423R1801 | | 0.062 | 6 |
| 2 | 20 | 2 | 009535 | E 92/20 | 2CSM200953R1801 | | 0.122 | 3 |
| 2 | 20 | 2 | 896234 | E 92/20s | 2CSM289623R1801 | | 0.062 | 3 |
| 3 | 20 | 3 | 009436 | E 93/20 | 2CSM200943R1801 | | 0.183 | 2 |
| 3 | 20 | 3 | 896135 | E 93/20s | 2CSM289613R1801 | | 0.184 | 2 |

s: version with blown fuse indicator light

# Protection and safety
## E 90h fuseholders




E 91hN




E 93hN



Fuse indicator LED

| Technical features | | | |
|---|---|---|---|
| **Type** | | **E 90hN/20** | **E 90hN/32** |
| Rated currrent | [A] | 20 | 32 |
| Type of current | | a.c. | |
| Fuse | [mm] | 8 x 31 | 10 x 38 |
| Max power dissipation accepted | [W] | 2.6 | 3.2 |
| Rated frequency | [Hz] | 50-60 | |
| Tightening torque | [Nm] | PZ2 0.8-1.2 | |
| Protection degree | | IP20 | |
| Terminals' section | [mm²] | 16 | |
| Cross section rigid copper conductors | [mm²] | 1.5-16 | |
| Cross section stranded copper conductors | [mm²] | 1.5-10 | |
| Operating temperature | [°C] | -5/+40 ① | |
| Storage temperature | [°C] | -25/+70 ② | |
| Altitude | [m] | 2000 | |
| Voltage range for LED indicator light | | 24-1000 AC/DC (only s version) | |
| Padlockable (when open) | | ■ | |
| Sealable (when closed) | | ■ | |
| **IEC 60269-3** | | | |
| Rated voltage | [V] | 400 | |

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical distribution in buildings - Technical details
② for more than 24h max temperature is +55 °C

### E 90h fuseholders

E 90h fuseholders are suitable for protection against overloads and short circuits. Available in a single module 1P+N version and in a three-module 3P+N version, they are designed for use with gG and aM cylindrical fuse links. The body is made from self-extinguishing material resistant to high temperatures, while the contact clips are in silver-plated copper. E 90h fuseholders can be sealed or padlocked to assure operator safety during maintenance. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not.

**E 90h fuseholders for 10.3 x 38 mm fuses**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 32 | 1 | 009139 | E 91hN/32 | 2CSM200913R1801 | | 0.070 | 6 |
| 1+N | 32 | 1 | 065739 | E 91hN/32s | 2CSM206573R1801 | | 0.071 | 6 |
| 3+N | 32 | 3 | 047438 | E 93hN/32 | 2CSM204743R1801 | | 0.192 | 2 |
| 3+N | 32 | 3 | 743439 | E 93hN/32s | 2CSM274343R1801 | | 0.200 | 2 |

s: version with blown fuse indicator light

**E 90h fuseholders for 8.5 x 31.5 mm fuses**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1+N | 20 | 1 | 009634 | E 91hN/20 | 2CSM200963R1801 | | 0.070 | 6 |
| 1+N | 20 | 1 | 007036 | E 91hN/20s | 2CSM200703R1801 | | 0.071 | 6 |
| 3+N | 20 | 3 | 009337 | E 93hN/20 | 2CSM200933R1801 | | 0.192 | 2 |
| 3+N | 20 | 3 | 896036 | E 93hN/20s | 2CSM289603R1801 | | 0.200 | 2 |

s: version with blown fuse indicator light

**Where to find more:**
Protection and disconnection of 1000V DC lines with E 90h and utlization categories of E 90: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 9F gG cylindrical fuses p.5/103
E 9F aM cylindrical fuses p.5/107

# Protection and safety
## E 90 PV fuse disconnectors




**E 90 PV**

| Technical features | | | |
|---|---|---|---|
| **Type** | | **E 90/32 PV** | **E 90/32 PV according to UL** |
| Rated current | [A] | 30 | |
| Type of current | | d.c. | |
| Fuse | [mm] | 10 x 38 | |
| Max power dissipation accepted | [W] | 3 | |
| Rated frequency | [Hz] | - | |
| Tightening torque | [Nm] | PZ2 2-2.5 Nm | PZ2 18-22 lb-in |
| Protection degree | | IP20 | |
| Terminals' section | [mm²] | 25 | |
| Cross section rigid copper conductors | | 1.5 - 25 mm² | n..a. |
| Cross section stranded copper conductors | | 1.5 - 16 mm² | 8÷3 AWG |
| Operating temperature | [°C] | -5/+40 ① | |
| Storage temperature | [°C] | -25/+70 ② | |
| Altitude | [m] | 2000 | |
| Voltage range for LED indicator light | | 24-1000 AC/DC (only s version) | |
| Can be padlocked (open) | | ■ | |
| Can be sealed (closed) | | ■ | |
| **IEC 60947-3** | | | |
| Utilization category | | DC-20B | |
| Rated voltage | [V] | 1000 | |

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical distribution in buildings - Technical details
② for more than 24h max temperature is +55 °C

### E 90 PV fuse disconnectors

E 90 PV series fuse disconnectors, designed for operating voltages of 1000 V d.c. with utilization category DC-20B, are particularly suited for protection against overcurrents of photovoltaic systems. The single-pole or two-pole E 90 PV disconnectors for 10.3 x 38 mm cylindrical fuse links offer a reliable, compact and affordable solution for photovoltaic installations. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not.

**E 90 PV fuse disconnectors for 10.3 x 38 mm fuses (DC-20B)**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 | 32 | 1 | 047131 | E 91/32 PV | 2CSM204713R1801 | | 0.061 | 6 |
| 1 | 32 | 1 | 046936 | E 91/32 PVs | 2CSM204693R1801 | | 0.062 | 6 |
| 2 | 32 | 2 | 047032 | E 92/32 PV | 2CSM204703R1801 | | 0.122 | 3 |
| 2 | 32 | 2 | 569138 | E 92/32 PVs | 2CSM256913R1801 | | 0.233 | 3 |

s: version with blown fuse indicator light

**Where to find more:**
Utlization categories of E 90 PV: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 9F gG cylindrical fuses p.5/103
E 9F aM cylindrical fuses p.5/107

# Protection and safety
# E 90 50/125 fuse disconnectors




E 90 50/125

5

| Technical features | | | |
|---|---|---|---|
| **Type** | | **E 90/50** | **E 90/125** |
| Rated current | [A] | 50 | 100* |
| Type of current | | a.c. | |
| Fuse | [mm] | 14 x 51 | 22 x 58 |
| Max power dissipation accepted | [W] | 5 | 9.5 |
| Rated frequency | [Hz] | 50-60 | |
| Tightening torque | [Nm] | PZ2 3-3.5 | PZ2 3.5-4 |
| Protection degree | | IP20** | |
| Terminals' section | [mm²] | 35 | 50 |
| Cross section rigid copper conductors | [mm²] | 2.5 - 35 | 4 - 50 |
| Cross section stranded copper conductors | [mm²] | 2.5 - 25 | 4 - 35 |
| Can be sealed closed | | ■ | |
| Can be padlocked open | | ■ | |
| **IEC 60947-3** | | | |
| Utilization category | | AC-20B | |
| Rated voltage | [V] | 690 | |

* 125A with fuses of type aM and in combination with a device which guarantees protection against overload
** The protection degree IP20 is obtained also as standalone unit with respect to wire size of 10mm²

## 90 50/125 fuse disconnectors

The E 90 50/125 fuse disconnector range is specifically intended for industrial circuit protection when currents are from 50 A to 125 A. They can, respectively, carry any type of cylindrical fuses 14x51 and 22x58 mm. The E 90 50/125 fuseholders can be sealed or padlocked in open position to ensure operator safety during maintenance operations. Versions with blown fuse indicator (LED) allow checking whether the fuse is still working correctly or not.

**E 90/50 fuse disconnectors for 14 x 51 mm fuses (AC-20B)**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details | | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| | | | | Type code | Order code | | | |
| 1 | 50 | 1.5 | 790228 | E 91/50 | 2CSM279022R1801 | | 0.095 | 4 |
| 1 | 50 | 1.5 | 372028 | E 91/50s | 2CSM237202R1801 | | 0.095 | 4 |
| 1+N | 50 | 3 | 779827 | E 91N/50 | 2CSM277982R1801 | | 0.19 | 2 |
| 1+N | 50 | 3 | 023920 | E 91N/50s | 2CSM202392R1801 | | 0.19 | 2 |
| 2 | 50 | 3 | 779728 | E 92/50 | 2CSM277972R1801 | | 0.19 | 2 |
| 2 | 50 | 3 | 070320 | E 92/50s | 2CSM207032R1801 | | 0.19 | 2 |
| 3 | 50 | 4.5 | 779629 | E 93/50 | 2CSM277962R1801 | | 0.285 | 1 |
| 3 | 50 | 4.5 | 574828 | E 93/50s | 2CSM257482R1801 | | 0.285 | 1 |
| 3+N | 50 | 6 | 779520 | E 93N/50 | 2CSM277952R1801 | | 0.38 | 1 |
| 3+N | 50 | 6 | 563020 | E 93N/50s | 2CSM256302R1801 | | 0.38 | 1 |

**E 90/125 fuse disconnectors for 22 x 58 mm fuses (AC-20B)**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details | | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| | | | | Type code | Order code | | | |
| 1 | 100 | 2 | 775720 | E 91/125 | 2CSM277572R1801 | | 0.135 | 4 |
| 1 | 100 | 2 | 896326 | E 91/125s | 2CSM289632R1801 | | 0.135 | 4 |
| 1+N | 100 | 4 | 773528 | E 91N/125 | 2CSM277352R1801 | | 0.27 | 2 |
| 1+N | 100 | 4 | 049425 | E 91N/125s | 2CSM204942R1801 | | 0.27 | 2 |
| 2 | 100 | 4 | 771326 | E 92/125 | 2CSM277132R1801 | | 0.27 | 2 |
| 2 | 100 | 4 | 049326 | E 92/125s | 2CSM204932R1801 | | 0.27 | 2 |
| 3 | 100 | 6 | 775027 | E 93/125 | 2CSM277502R1801 | | 0.405 | 1 |
| 3 | 100 | 6 | 049227 | E 93/125s | 2CSM204922R1801 | | 0.405 | 1 |
| 3+N | 100 | 8 | 965329 | E 93N/125 | 2CSM296532R1801 | | 0.54 | 1 |
| 3+N | 100 | 8 | 049128 | E 93N/125s | 2CSM204912R1801 | | 0.54 | 1 |

s: version with blown fuse indicator light

**Where to find more:**
Protection and safety technical details for E 90 50/125: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 9F gG cylindrical fuses p.5/103
E 9F aM cylindrical fuses p.5/107

# Protection and safety
## E 90 CC fuseholders




E 91




E 93

| Technical features | | |
|---|---|---|
| **Type** | | **E 90/30 CC** |
| Rated voltage Un | [V] | 600 |
| Rated current In | [A] | 30 |
| Type of current | | a.c./d.c. |
| Rated frequency | [Hz] | 60 |
| Fuse size | [mm] | class CC |
| Tightening torque | [Nm] | PZ2 2-2.5 |
| | [lb-in] | PZ2 18-22 |
| Rated temperature | [°C] | 75 |
| Voltage range for LED indicator light (only s version) | [V] | 24 - 1000 a.c./d.c. |
| Can be sealed closed | | ■ |
| Can be padlocked open | | ■ |

5

The E 90 fuse carriers for Class CC cylindrical fuse links are specifically designed for the North American market in compliance with the UL standards. In accordance with the reference standards UL 4248-1 and UL 4248-4, they come in voltage and current ratings up to 600V and 30A. They are available in 1P, 1P+N, 2P, 3P, 3P+N and 4P versions. They can be padlocked open and sealed closed.
The E 90 fuse carriers are the ideal solution for process control and industrial systems, automation systems, industrial installations and control circuits. The versions with blown fuse indicator light provide a visual signal of the fuse break condition

**E 90 for class CC cartridge fuses**

| Poles | Rated current | Modules | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | In | | EAN | Type code | Order code | | kg | pc. |
| 1 | 30 | 1 | 998723 | E 91/30 CC | 2CSM299872R1801 | | 0.061 | 6 |
| 1 | 30 | 1 | 998822 | E 91/30s CC | 2CSM299882R1801 | | 0.062 | 6 |
| 1+N | 30 | 2 | 998921 | E 91N/30 CC | 2CSM299892R1801 | | 0.13 | 3 |
| 1+N | 30 | 2 | 999027 | E 91N/30s CC | 2CSM299902R1801 | | 0.13 | 3 |
| 2 | 30 | 2 | 999126 | E 92/30 CC | 2CSM299912R1801 | | 0.122 | 3 |
| 2 | 30 | 2 | 999225 | E 92/30s CC | 2CSM299922R1801 | | 0.122 | 3 |
| 3 | 30 | 3 | 999324 | E 93/30 CC | 2CSM299932R1801 | | 0.183 | 2 |
| 3 | 30 | 3 | 999423 | E 93/30s CC | 2CSM299942R1801 | | 0.183 | 2 |
| 3+N | 30 | 4 | 999522 | E 93N/30 CC | 2CSM299952R1801 | | 0.252 | 1 |
| 3+N | 30 | 4 | 999621 | E 93N/30s CC | 2CSM299962R1801 | | 0.252 | 1 |
| 4 | 30 | 4 | 999720 | E 94/30 CC | 2CSM299972R1801 | | 0.244 | 1 |
| 4 | 30 | 4 | 999829 | E 94/30s CC | 2CSM299982R1801 | | 0.244 | 1 |

s: version with blown fuse indicator light

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 9F gG cylindrical fuses p.5/103
E 9F aM cylindrical fuses p.5/107

# Protection and safety
## E 90 J fuse fuseholders



E 90 Class J

5

| Technical features | | | |
|---|---|---|---|
| Type | | E 90/30 J | E 90/60 J |
| Rated current | [A] | 30 | 60 |
| Rated voltage | [V] | 600 | |
| Type of current | | a.c./d.c. | |
| Fuse | | Class J 1-30A | Class J 31-60A |
| Rated frequency | [Hz] | 60 | |
| Tightening torque | [Nm] | PZ2 3.5-4 | |
| Terminals' section | [mm²] | 50 | |
| Cross section rigid copper conductors | [AWG] | 14-10 | |
| Cross section stranded copper conductors | [AWG] | 14-8 | |
| Can be sealed closed | | ■ | |
| Can be padlocked open | | ■ | |

### E 90 Class J

The E 90 Class J fuse carriers are the ideal solution for industrial systems, industrial installations and control circuits. They are specifically designed for the North American market in compliance with the UL standards. In accordance with the reference standard UL 4248-8, they come in voltage and current ratings up to 600V and 30/60A. They are available in 1P, 2P and 3P versions. The versions with blown fuse indicator light provide a visual signal of the fuse break condition. They can be padlocked open and sealed closed to ensure operator safety during maintenance operations..

**E 90/30 fuse disconnectors for Class J fuses**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 2 | 048220 | E 91/30 J | 2CSM204822R1801 | | 0.135 | 4 |
| 2 | 30 | 4 | 048121 | E 92/30 J | 2CSM204812R1801 | | 0.27 | 2 |
| 3 | 30 | 6 | 048022 | E 93/30 J | 2CSM204802R1801 | | 0.405 | 1 |
| 1 | 30 | 2 | 047926 | E 91/30s J | 2CSM204792R1801 | | 0.135 | 4 |
| 2 | 30 | 4 | 047827 | E 92/30s J | 2CSM204782R1801 | | 0.27 | 2 |
| 3 | 30 | 6 | 047728 | E 93/30s J | 2CSM204772R1801 | | 0.405 | 1 |

**E 90/60 fuse disconnectors for Class J fuses**

| Poles | Rated current In | Modules | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 | 60 | 2.5 | 047629 | E 91/60 J | 2CSM204762R1801 | | 0.175 | 3 |
| 2 | 60 | 5 | 049821 | E 92/60 J | 2CSM204982R1801 | | 0.35 | 1 |
| 3 | 60 | 7.5 | 049722 | E 93/60 J | 2CSM204972R1801 | | 0.525 | 1 |
| 1 | 60 | 2.5 | 049623 | E 91/60s J | 2CSM204962R1801 | | 0.175 | 3 |
| 2 | 60 | 5 | 049524 | E 92/60s J | 2CSM204952R1801 | | 0.35 | 1 |
| 3 | 60 | 7.5 | 738824 | E 93/60s J | 2CSM273882R1801 | | 0.525 | 1 |

s: version with blown fuse indicator light

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

# Protection and safety
## Cylindrical fuses E 9F gG




**E 9F8**




**E 9F10**

| Technical features | | |
|---|---|---|
| Rated voltage | [V] | 400, 500, 690 AC |
| Rated current | [A] | 0.5…125 |
| Breaking capacity | [kA] | 20, 80, 120 |
| Overall dimensions | [mm] | 8.5x31.5 , 10.3x38 , 14x51 , 22x58 |
| Weight | [g] | 4, 7, 18, 48 |
| Standards | | IEC 60269-2; ROHS 2002/98/CE |
| Marks | | LLOYD, BV |

**E 9F 8 gG cylindrical fuses 8.5 x 31.5 mm**

| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
|---|---|---|---|
| E 9F8 GG1 | 1 | 400 | 20 |
| E 9F8 GG2 | 2 | 400 | 20 |
| E 9F8 GG4 | 4 | 400 | 20 |
| E 9F8 GG6 | 6 | 400 | 20 |
| E 9F8 GG8 | 8 | 400 | 20 |
| E 9F8 GG10 | 10 | 400 | 20 |
| E 9F8 GG12 | 12 | 400 | 20 |
| E 9F8 GG16 | 16 | 400 | 20 |
| E 9F8 GG20 | 20 | 400 | 20 |

**E 9F 10 gG cylindrical fuses 10.3 x 38 mm**

| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
|---|---|---|---|
| E 9F10 GG05 | 0.5 | 500 | 120 |
| E 9F10 GG1 | 1 | 500 | 120 |
| E 9F10 GG2 | 2 | 500 | 120 |
| E 9F10 GG4 | 4 | 500 | 120 |
| E 9F10 GG6 | 6 | 500 | 120 |
| E 9F10 GG8 | 8 | 500 | 120 |
| E 9F10 GG10 | 10 | 500 | 120 |
| E 9F10 GG12 | 12 | 500 | 120 |
| E 9F10 GG16 | 16 | 500 | 120 |
| E 9F10 GG20 | 20 | 500 | 120 |
| E 9F10 GG25 | 25 | 500 | 120 |
| E 9F10 GG32 | 32 | 400 | 120 |



**Where to find more:**
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E 90h fuseholders p.5/98
E 90 50/125 fuse disconnectors p.5/100

# Protection and safety
## Cylindrical fuses E 9F gG




**E 9F14**




**E 9F22**



| E 9F 14 gG cylindrical fuses 14 x 51 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F14 GG2 | 2 | 690 | 120 |
| E 9F14 GG4 | 4 | 690 | 120 |
| E 9F14 GG6 | 6 | 690 | 120 |
| E 9F14 GG8 | 8 | 690 | 120 |
| E 9F14 GG10 | 10 | 690 | 120 |
| E 9F14 GG12 | 12 | 690 | 120 |
| E 9F14 GG16 | 16 | 690 | 120 |
| E 9F14 GG20 | 20 | 690 | 120 |
| E 9F14 GG25 | 25 | 690 | 120 |
| E 9F14 GG32 | 32 | 500 | 120 |
| E 9F14 GG40 | 40 | 500 | 120 |
| E 9F14 GG50 | 50 | 400 | 120 |

| E 9F 22 gG cylindrical fuses 22 x 58 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F22 GG4 | 4 | 690 | 120 |
| E 9F22 GG6 | 6 | 690 | 120 |
| E 9F22 GG8 | 8 | 690 | 120 |
| E 9F22 GG10 | 10 | 690 | 120 |
| E 9F22 GG12 | 12 | 690 | 120 |
| E 9F22 GG16 | 16 | 690 | 120 |
| E 9F22 GG20 | 20 | 690 | 120 |
| E 9F22 GG25 | 25 | 690 | 120 |
| E 9F22 GG32 | 32 | 690 | 120 |
| E 9F22 GG40 | 40 | 690 | 120 |
| E 9F22 GG50 | 50 | 690 | 120 |
| E 9F22 GG63 | 63 | 690 | 120 |
| E 9F22 GG80 | 80 | 690 | 120 |
| E 9F22 GG100 | 100 | 500 | 120 |
| E 9F22 GG125 | 125 | 500 | 120 |

**Where to find more:**
Protection and safety technical details for E 9F: Chapter 5 of Solutions for electrical distribution in buildings - technical details

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E 90h fuseholders p.5/98
E 90 50/125 fuse disconnectors p.5/100

## E 9F gG cylindrical fuses

The E 9F gG cylindrical fuses, coupled with E 90 and E 90 50/125 fuse disconnectors, are the ideal solution for protection against overload and short-circuit. They feature a fast tripping curve that is ideal for protecting electronic devices, transformers and electric cables. The E 9F gG series is available for all the main sizes (8.5 x 31.5 mm, 10.3 x 38 mm, 14 x 51 mm e 22 x 58 mm) and with a wide range of rated current values (from 1 A to 125 A and up to 690 V a.c.). All the E 9F series fuses conform to the RoHS directive and are type-approved in accordance with the most important international naval marks.

**E 9F 8 gG cylindrical fuses 8.5 x 31.5 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 1 | 8.5x31.5 | 575733 | E 9F8 GG1 | 2CSM257573R1801 | | 0.004 | 10 |
| 2 | 8.5x31.5 | 563938 | E 9F8 GG2 | 2CSM256393R1801 | | 0.004 | 10 |
| 4 | 8.5x31.5 | 586630 | E 9F8 GG4 | 2CSM258663R1801 | | 0.004 | 10 |
| 6 | 8.5x31.5 | 574835 | E 9F8 GG6 | 2CSM257483R1801 | | 0.004 | 10 |
| 8 | 8.5x31.5 | 563037 | E 9F8 GG8 | 2CSM256303R1801 | | 0.004 | 10 |
| 10 | 8.5x31.5 | 775737 | E 9F8 GG10 | 2CSM277573R1801 | | 0.004 | 10 |
| 12 | 8.5x31.5 | 773535 | E 9F8 GG12 | 2CSM277353R1801 | | 0.004 | 10 |
| 16 | 8.5x31.5 | 771333 | E 9F8 GG16 | 2CSM277133R1801 | | 0.004 | 10 |
| 20 | 8.5x31.5 | 775034 | E 9F8 GG20 | 2CSM277503R1801 | | 0.004 | 10 |

**E 9F 10 gG cylindrical fuses 10.3 x 38 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 0.5 | 10.3x38 | 773337 | E 9F10 GG05 | 2CSM277333R1801 | | 0.007 | 10 |
| 1 | 10.3x38 | 771135 | E 9F10 GG1 | 2CSM277113R1801 | | 0.007 | 10 |
| 2 | 10.3x38 | 587231 | E 9F10 GG2 | 2CSM258723R1801 | | 0.007 | 10 |
| 4 | 10.3x38 | 575436 | E 9F10 GG4 | 2CSM257543R1801 | | 0.007 | 10 |
| 6 | 10.3x38 | 563631 | E 9F10 GG6 | 2CSM256363R1801 | | 0.007 | 10 |
| 8 | 10.3x38 | 586333 | E 9F10 GG8 | 2CSM258633R1801 | | 0.007 | 10 |
| 10 | 10.3x38 | 574538 | E 9F10 GG10 | 2CSM257453R1801 | | 0.007 | 10 |
| 12 | 10.3x38 | 562733 | E 9F10 GG12 | 2CSM256273R1801 | | 0.007 | 10 |
| 16 | 10.3x38 | 775430 | E 9F10 GG16 | 2CSM277543R1801 | | 0.007 | 10 |
| 20 | 10.3x38 | 773238 | E 9F10 GG20 | 2CSM277323R1801 | | 0.007 | 10 |
| 25 | 10.3x38 | 771036 | E 9F10 GG25 | 2CSM277103R1801 | | 0.007 | 10 |
| 32 | 10.3x38 | 587132 | E 9F10 GG32 | 2CSM258713R1801 | | 0.007 | 10 |

# Cylindrical fuses E 9F gG



**E 9F 14 gG cylindrical fuses 14 x 51 mm**

| Rated current In | Size mm | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 14x51 | 775232 | E 9F14 GG2 | 2CSM277523R1801 | | 0.018 | 10 |
| 4 | 14x51 | 773030 | E 9F14 GG4 | 2CSM277303R1801 | | 0.018 | 10 |
| 6 | 14x51 | 770831 | E 9F14 GG6 | 2CSM277083R1801 | | 0.018 | 10 |
| 8 | 14x51 | 910039 | E 9F14 GG8 | 2CSM291003R1801 | | 0.018 | 10 |
| 10 | 14x51 | 909835 | E 9F14 GG10 | 2CSM290983R1801 | | 0.018 | 10 |
| 12 | 14x51 | 909637 | E 9F14 GG12 | 2CSM290963R1801 | | 0.018 | 10 |
| 16 | 14x51 | 587835 | E 9F14 GG16 | 2CSM258783R1801 | | 0.018 | 10 |
| 20 | 14x51 | 576037 | E 9F14 GG20 | 2CSM257603R1801 | | 0.018 | 10 |
| 25 | 14x51 | 564232 | E 9F14 GG25 | 2CSM256423R1801 | | 0.018 | 10 |
| 32 | 14x51 | 586937 | E 9F14 GG32 | 2CSM258693R1801 | | 0.018 | 10 |
| 40 | 14x51 | 575139 | E 9F14 GG40 | 2CSM257513R1801 | | 0.018 | 10 |
| 50 | 14x51 | 563334 | E 9F14 GG50 | 2CSM256333R1801 | | 0.018 | 10 |

**E 9F 22 gG cylindrical fuses 22 x 58 mm**

| Rated current In | Size mm | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 4 | 22x58 | 571834 | E 9F22 GG4 | 2CSM257183R1801 | | 0.048 | 10 |
| 6 | 22x58 | 592839 | E 9F22 GG6 | 2CSM259283R1801 | | 0.048 | 10 |
| 8 | 22x58 | 581031 | E 9F22 GG8 | 2CSM258103R1801 | | 0.048 | 10 |
| 10 | 22x58 | 569237 | E 9F22 GG10 | 2CSM256923R1801 | | 0.048 | 10 |
| 12 | 22x58 | 594031 | E 9F22 GG12 | 2CSM259403R1801 | | 0.048 | 10 |
| 16 | 22x58 | 582236 | E 9F22 GG16 | 2CSM258223R1801 | | 0.048 | 10 |
| 20 | 22x58 | 570431 | E 9F22 GG20 | 2CSM257043R1801 | | 0.048 | 10 |
| 25 | 22x58 | 595335 | E 9F22 GG25 | 2CSM259533R1801 | | 0.048 | 10 |
| 32 | 22x58 | 583530 | E 9F22 GG32 | 2CSM258353R1801 | | 0.048 | 10 |
| 40 | 22x58 | 571735 | E 9F22 GG40 | 2CSM257173R1801 | | 0.048 | 10 |
| 50 | 22x58 | 593935 | E 9F22 GG50 | 2CSM259393R1801 | | 0.048 | 10 |
| 63 | 22x58 | 582137 | E 9F22 GG63 | 2CSM258213R1801 | | 0.048 | 10 |
| 80 | 22x58 | 570332 | E 9F22 GG80 | 2CSM257033R1801 | | 0.048 | 10 |
| 100 | 22x58 | 595236 | E 9F22 GG100 | 2CSM259523R1801 | | 0.048 | 10 |
| 125 | 22x58 | 583431 | E 9F22 GG125 | 2CSM258343R1801 | | 0.048 | 10 |

**Where to find more:**
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# Protection and safety
## Cylindrical fuses E 9F aM




**E 9F8 aM**

| Technical features | | |
|---|---|---|
| Rated voltage | [V] | 400, 500, 690 AC |
| Rated current | [A] | 0.5...125 |
| Breaking capacity | [kA] | 20, 80, 120 |
| Overall dimensions | [mm] | 8.5x31.5, 10.3x38, 14x51, 22x58 |
| Weight | [g] | 4, 7, 18, 48 |
| Standards | | IEC 60269-2; ROHS 2002/98/CE |
| Marks | | LLOYD, BV |




**E 9F10 aM**

| E 9F8 aM cylindrical fuses 8.5 x 31.5 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F1 AM1 | 1 | 400 | 20 |
| E 9F8 AM2 | 2 | 400 | 20 |
| E 9F8 AM4 | 4 | 400 | 20 |
| E 9F8 AM6 | 6 | 400 | 20 |
| E 9F8 AM8 | 8 | 400 | 20 |
| E 9F8 AM10 | 10 | 400 | 20 |

| E 9F10 aM cylindrical fuses 10.3 x 38 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F10 AM05 | 0.5 | 500 | 120 |
| E 9F10 AM1 | 1 | 500 | 120 |
| E 9F10 AM2 | 2 | 500 | 120 |
| E 9F10 AM4 | 4 | 500 | 120 |
| E 9F10 AM6 | 6 | 500 | 120 |
| E 9F10 AM8 | 8 | 500 | 120 |
| E 9F10 AM10 | 10 | 500 | 120 |
| E 9F10 AM12 | 12 | 500 | 120 |
| E 9F10 AM16 | 16 | 500 | 120 |
| E 9F10 AM20 | 20 | 500 | 120 |
| E 9F10 AM25 | 25 | 400 | 120 |
| E 9F10 AM32 | 32 | 400 | 120 |



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# Protection and safety
## Cylindrical fuses E 9F aM




**E 9F14 aM**




**E 9F22 aM**

5

| E 9F14 aM cylindrical fuses 14 x 51 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F14 AM1 | 1 | 690 | 120 |
| E 9F14 AM2 | 2 | 690 | 120 |
| E 9F14 AM4 | 4 | 690 | 120 |
| E 9F14 AM6 | 6 | 690 | 120 |
| E 9F14 AM8 | 8 | 690 | 120 |
| E 9F14 AM10 | 10 | 690 | 120 |
| E 9F14 AM12 | 12 | 690 | 120 |
| E 9F14 AM16 | 16 | 690 | 120 |
| E 9F14 AM20 | 20 | 690 | 120 |
| E 9F14 AM25 | 25 | 690 | 120 |
| E 9F14 AM32 | 32 | 500 | 120 |
| E 9F14 AM40 | 40 | 500 | 120 |
| E 9F14 AM45 | 45 | 500 | 120 |
| E 9F14 AM50 | 50 | 400 | 120 |

| E 9F22 aM cylindrical fuses 22 x 58 mm | | | |
|---|---|---|---|
| Type | Rated current [A] | Rated voltage [V AC] | Breaking capacity [kA] |
| E 9F22 AM6 | 6 | 690 | 120 |
| E 9F22 AM8 | 8 | 690 | 120 |
| E 9F22 AM10 | 10 | 690 | 120 |
| E 9F22 AM12 | 12 | 690 | 120 |
| E 9F22 AM16 | 16 | 690 | 120 |
| E 9F22 AM20 | 20 | 690 | 120 |
| E 9F22 AM25 | 25 | 690 | 120 |
| E 9F22 AM32 | 32 | 690 | 120 |
| E 9F22 AM40 | 40 | 690 | 120 |
| E 9F22 AM50 | 50 | 690 | 120 |
| E 9F22 AM63 | 63 | 690 | 120 |
| E 9F22 AM80 | 80 | 690 | 120 |
| E 9F22 AM100 | 100 | 500 | 120 |
| E 9F22 AM125 | 125 | 500 | 120 |

**Where to find more:**
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E 90 50/125 fuse disconnectors p.5/100

## E 9F aM cylindrical fuses

The E 9F aM cylindrical fuses, coupled with E 90 and E 90 50/125 fuse disconnectors, are the ideal solution for protection against overload and short-circuit. They feature a delayed tripping curve and are therefore ideal for protecting industrial motors that require high inrush current during the starting phase. The E 9F aM series is available for all the main sizes (8.5 x 31.5 mm, 10.3 x 38 mm, 14 x 51 mm e 22 x 58 mm) and with a wide range of rated current values (from 1 A to 125 A and up to 690 V a.c.). All the E 9F series fuses conform to the RoHS directive and are type-approved in accordance with the most important international naval marks.

**E 9F 8 aM cylindrical fuses 8.5 x 31.5 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 1 | 8.5x31.5 | 772835 | E 9F8 AM1 | 2CSM277283R1801 | | 0.004 | 10 |
| 2 | 8.5x31.5 | 770633 | E 9F8 AM2 | 2CSM277063R1801 | | 0.004 | 10 |
| 4 | 8.5x31.5 | 587439 | E 9F8 AM4 | 2CSM258743R1801 | | 0.004 | 10 |
| 6 | 8.5x31.5 | 575634 | E 9F8 AM6 | 2CSM257563R1801 | | 0.004 | 10 |
| 8 | 8.5x31.5 | 563839 | E 9F8 AM8 | 2CSM256383R1801 | | 0.004 | 10 |
| 10 | 8.5x31.5 | 586531 | E 9F8 AM10 | 2CSM258653R1801 | | 0.004 | 10 |

**E 9F 10 aM cylindrical fuses 10.3 x 38 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 0.5 | 10.3x38 | 574736 | E 9F10 AM05 | 2CSM257473R1801 | | 0.007 | 10 |
| 1 | 10.3x38 | 562931 | E 9F10 AM1 | 2CSM256293R1801 | | 0.007 | 10 |
| 2 | 10.3x38 | 775638 | E 9F10 AM2 | 2CSM277563R1801 | | 0.007 | 10 |
| 4 | 10.3x38 | 773436 | E 9F10 AM4 | 2CSM277343R1801 | | 0.007 | 10 |
| 6 | 10.3x38 | 771234 | E 9F10 AM6 | 2CSM277123R1801 | | 0.007 | 10 |
| 8 | 10.3x38 | 587330 | E 9F10 AM8 | 2CSM258733R1801 | | 0.007 | 10 |
| 10 | 10.3x38 | 575535 | E 9F10 AM10 | 2CSM257553R1801 | | 0.007 | 10 |
| 12 | 10.3x38 | 563730 | E 9F10 AM12 | 2CSM256373R1801 | | 0.007 | 10 |
| 16 | 10.3x38 | 586432 | E 9F10 AM16 | 2CSM258643R1801 | | 0.007 | 10 |
| 20 | 10.3x38 | 574637 | E 9F10 AM20 | 2CSM257463R1801 | | 0.007 | 10 |
| 25 | 10.3x38 | 562832 | E 9F10 AM25 | 2CSM256283R1801 | | 0.007 | 10 |
| 32 | 10.3x38 | 775539 | E 9F10 AM32 | 2CSM277553R1801 | | 0.007 | 10 |

# Protection and safety
## Cylindrical fuses E 9F aM



**E 9F 14 aM cylindrical fuses 14 x 51 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 1 | 14x51 | 575337 | E 9F14 AM1 | 2CSM257533R1801 | | 0.018 | 10 |
| 2 | 14x51 | 563532 | E 9F14 AM2 | 2CSM256353R1801 | | 0.018 | 10 |
| 4 | 14x51 | 586234 | E 9F14 AM4 | 2CSM258623R1801 | | 0.018 | 10 |
| 6 | 14x51 | 574439 | E 9F14 AM6 | 2CSM257443R1801 | | 0.018 | 10 |
| 8 | 14x51 | 562634 | E 9F14 AM8 | 2CSM256263R1801 | | 0.018 | 10 |
| 10 | 14x51 | 775331 | E 9F14 AM10 | 2CSM277533R1801 | | 0.018 | 10 |
| 12 | 14x51 | 773139 | E 9F14 AM12 | 2CSM277313R1801 | | 0.018 | 10 |
| 16 | 14x51 | 770930 | E 9F14 AM16 | 2CSM277093R1801 | | 0.018 | 10 |
| 20 | 14x51 | 587033 | E 9F14 AM20 | 2CSM258703R1801 | | 0.018 | 10 |
| 25 | 14x51 | 575238 | E 9F14 AM25 | 2CSM257523R1801 | | 0.018 | 10 |
| 32 | 14x51 | 563433 | E 9F14 AM32 | 2CSM256343R1801 | | 0.018 | 10 |
| 40 | 14x51 | 586135 | E 9F14 AM40 | 2CSM258613R1801 | | 0.018 | 10 |
| 45 | 14x51 | 574330 | E 9F14 AM45 | 2CSM257433R1801 | | 0.018 | 10 |
| 50 | 14x51 | 562535 | E 9F14 AM50 | 2CSM256253R1801 | | 0.018 | 10 |

**E 9F 22 aM cylindrical fuses 22 x 58 mm**

| Rated current | Size | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| In | mm | EAN | Type code | Order code | | kg | pc. |
| 6 | 22x58 | 586036 | E 9F22 AM6 | 2CSM258603R1801 | | 0.048 | 10 |
| 8 | 22x58 | 574231 | E 9F22 AM8 | 2CSM257423R1801 | | 0.048 | 10 |
| 10 | 22x58 | 562436 | E 9F22 AM10 | 2CSM256243R1801 | | 0.048 | 10 |
| 12 | 22x58 | 775133 | E 9F22 AM12 | 2CSM277513R1801 | | 0.048 | 10 |
| 16 | 22x58 | 772934 | E 9F22 AM16 | 2CSM277293R1801 | | 0.048 | 10 |
| 20 | 22x58 | 770732 | E 9F22 AM20 | 2CSM277073R1801 | | 0.048 | 10 |
| 25 | 22x58 | 774938 | E 9F22 AM25 | 2CSM277493R1801 | | 0.048 | 10 |
| 32 | 22x58 | 772736 | E 9F22 AM32 | 2CSM277273R1801 | | 0.048 | 10 |
| 40 | 22x58 | 770534 | E 9F22 AM40 | 2CSM277053R1801 | | 0.048 | 10 |
| 50 | 22x58 | 594130 | E 9F22 AM50 | 2CSM259413R1801 | | 0.048 | 10 |
| 63 | 22x58 | 582335 | E 9F22 AM63 | 2CSM258233R1801 | | 0.048 | 10 |
| 80 | 22x58 | 570530 | E 9F22 AM80 | 2CSM257053R1801 | | 0.048 | 10 |
| 100 | 22x58 | 595434 | E 9F22 AM100 | 2CSM259543R1801 | | 0.048 | 10 |
| 125 | 22x58 | 583639 | E 9F22 AM125 | 2CSM258363R1801 | | 0.048 | 10 |

**Where to find more:**
Protection and safety technical details for E 9F: Chapter 5 of Solutions for electrical distribution in buildings - technical details

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# Protection and safety
# Cylindrical Fuses E 9F gPV




**E 9F PV**

| Technical features | | |
|---|---|---|
| Rated voltage | [V] | 1000 DC |
| Rated current | [A] | 1...30 |
| Breaking capacity | [kA] | 10 |
| Minimum breaking capacity | | From 1 A up to 7 A = 1.3 x In |
| | | From 8 A up to 30 A = 2.0 x In |
| Overall dimensions | [mm] | 10.3 x 38 |
| Weight | [g] | 7 |
| Standards | | IEC 60269-6; ROHS 2002/98/CE, UL |

## E 9F PV cylindrical fuses for photovoltaic applications

The cylindrical fuses E 9F PV series are specifically used in overcurrent protection of photovoltaic applications up to 1000 V in direct current. Thanks to the wide current range from 1 A to 30 A, and to the high nominal voltage of 1000 V DC, the series E 9F PV is ideal to protect strings, inverters and OVR surge protections according to IEC 60269-6 “Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems”.



**E 9F PV cylindrical fuses 10.3 x 38 mm**

| Rated current In | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 A | 134568 | E 9F1 PV | 2CSM213456R1801 | | 0.007 | 10 |
| 2 A | 134667 | E 9F2 PV | 2CSM213466R1801 | | 0.007 | 10 |
| 3 A | 134766 | E 9F3 PV | 2CSM213476R1801 | | 0.007 | 10 |
| 4 A | 134865 | E 9F4 PV | 2CSM213486R1801 | | 0.007 | 10 |
| 5 A | 134964 | E 9F5 PV | 2CSM213496R1801 | | 0.007 | 10 |
| 6 A | 135060 | E 9F6 PV | 2CSM213506R1801 | | 0.007 | 10 |
| 7 A | 135169 | E 9F7 PV | 2CSM213516R1801 | | 0.007 | 10 |
| 8 A | 135268 | E 9F8 PV | 2CSM213526R1801 | | 0.007 | 10 |
| 10 A | 135367 | E 9F10 PV | 2CSM213536R1801 | | 0.007 | 10 |
| 12 A | 135466 | E 9F12 PV | 2CSM213546R1801 | | 0.007 | 10 |
| 15 A | 135565 | E 9F15 PV | 2CSM213556R1801 | | 0.007 | 10 |
| 20 A | 135664 | E 9F20 PV | 2CSM213566R1801 | | 0.007 | 10 |
| 25 A | 135763 | E 9F25 PV | 2CSM213576R1801 | | 0.007 | 10 |
| 30 A | 135862 | E 9F30 PV | 2CSM213586R1801 | | 0.007 | 10 |

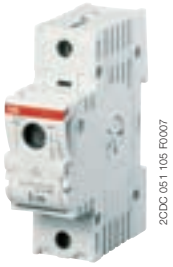
**Where to find more:**
Protection and safety technical details for E 9F: Chapter 5 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
E 90 fuse switch disconnectors p.5/96
E 90h fuseholders p.5/98
E 90 50/125 fuse disconnectors p.5/100

# Protection and safety
## ILTS-E D0 Fuse-switch-disconnectors






ILTS-E1




ILTS-E1




ILTS-E3




ILTS-E/H11




ILTS-E/RE

| Technical data | |
|---|---|
| Standards: | DIN VDE 0638, EN 60947-3, EN 660269-3-1 |
| Approval: | VDE |
| No. of poles: | 1, 2, 3 pole and 3 pole+N |
| Rated voltage: | 400 V AC, per pole 65 V DC (2 pole 130 V DC) |
| Operating current In: | acc. to fuse link D0 2-63 A |
| Rated frequency: | 50/60 Hz |
| Rated short circuit capacity: | 50 kA for AC (8 kA for DC) |
| Power loss: | 5.5 W/pole |
| Utilization category: | AC 22 B: 400 V AC 63 A according to IEC / EN 60947-3 (all versions)<br>DC 22 B: 65 V DC 63 A according to IEC / EN 60947-3 (1 pole)<br>DC 22 B: 130 V DC 63 A according to IEC / EN 60947-3 (2 pole) |
| Leakage current resistance: | CTI 200 |
| Ambient temperature: | – 5 °C up to + 40 °C |
| Casing material: | thermoplast; halogen-, phosphor-, silicone- and CFC-free |
| Fire classification: | UL 94 (self-extinguishing) |
| Shock protection: | according to DIN EN 50 274 (DIN VDE 0660 Part 514) BGV A3 |
| Connection capacity: | 1.5 – 35 mm² finely stranded, directly clamped or with connector sleeve<br>Twin-function terminal for simultaneous connection of two conductors<br>(35 mm² and 16 mm²) or conductor and busbar |
| Pick-up torque: | 2.5 – 3 Nm |
| Auxiliary switch indicating contact position | |
| Contacts: | 1 NO contact + 1 NC contact |
| Contact rating: | AC 13: 2 A/400 V, 6 A/230 V<br>DC 13: 1 A/220 V, 6 A/24 V |

### Switch-disconnector ILTS-E for D0 2-63 A fuse links “Drawer technology”

User-friendly fuse-switch-disconnector in “drawer technology”:

- Snap action
- Fuse can be replaced only if the system is de-energized.
- Captive fuse carrier
- For D02 fuse links, D01 fuse link with reducing piece
- Twin box terminal on both sides
- User-friendly installation of cross-wiring in lower terminal
- Auxiliary switch to indicate switching position

**Fuse-switch-disconnector**

| Poles | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 | 65347 3 | ILTS-E1 | 2CDE 101 001 R1901 | | 0.210 | 3 |
| 2 | 65348 0 | ILTS-E2 | 2CDE 102 001 R1901 | | 0.420 | 2 |
| 3 | 65349 7 | ILTS-E3 | 2CDE 103 001 R1901 | | 0.630 | 1 |
| 3+N* | 65350 3 | ILTS-E3+N | 2CDE 103 101 R1901 | | 0.790 | 1 |
| Reducing piece | 65407 4 | ILTS-E/RE | 2CDE 000 011 R1901 | | 0.001 | 20 |
| Auxiliary switch 1NO/1NC | 65671 9 | LTS-E/H11 | 2CDE 000 012 R1901 | | 0.050 | 1 |

* N conductor leading make contact, late closing

**Maybe you are also interested in:**
Busbars and accesories for ILTS-E and ISS p.5/114

# Protection and safety
## ISS D0 Fuse carriers


2CDC 051 109 F0007

ISS 16/1


2CDC 051 110 F0007

ISS 63/1


2CDC 051 111 F0007

ISS 16/3


2CDC 051 112 F0007

ISS 63/3

| Technical features | | |
|---|---|---|
| **Size:** | **D01** | **D02** |
| Current type: | AC (50 Hz) / DC | AC (50 Hz) / DC |
| Rated voltage: | 400 V AC / 250 V DC | 400 V AC / 250 V DC |
| Rated current: | 16 A | 63 A |
| Rated short-circuit current: | 50 kA (AC)<br>8 kA (DC) | 50 kA (AC)<br>8 kA (DC) |
| For fuse links with losses per phase up to: | 2.5 W | 5.5 W |

### D0 fuse carrier ISS with integrated red cover

D0 fuse base for NEOZED fuse links D01 / D02. Touch-protection according to BGV A3. Twin box terminal on both sides for connection of two different conductor cross-sections or conductors and busbars.

Conductor cross-sections incoming and outing 1.5 – 35 mm², stranded. With integrated terminal cover. A separate cover for distribution board installation is not required.

- IEC 60269-3 / VDE 0636-3
- 1/3-pole
- Fuse links, connector sleeves VDE 0636-3
- Snap clip device for rail mounting to EN 60715
- Twin function terminal
- Connection cross-section 1.5 – 35 mm²
- Tightening torque 2.5 – 3 Nm

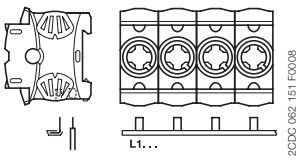
**D0 fuse carrier**

| Poles | Screw cover/ fuse | Bbn 4016779<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| 1 | E14 D01 | 65579 8 | ISS 16/1 | 2CDE 111 001 R1902 | | 0.08 | 9 |
| 1 | E18 D02 | 65581 1 | ISS 63/1 | 2CDE 161 001 R1902 | | 0.08 | 9 |
| 3 | E14 D01 | 65580 4 | ISS 16/3 | 2CDE 113 001 R1902 | | 0.24 | 9 |
| 3 | E18 D02 | 65582 8 | ISS 63/3 | 2CDE 163 001 R1902 | | 0.24 | 9 |

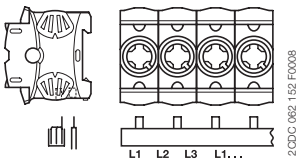
**Maybe you are also interested in:**
Busbars and acessories
for D0 fuses p.5/114

# Protection and safety
## Busbars and accessories for ILTS-E and ISS

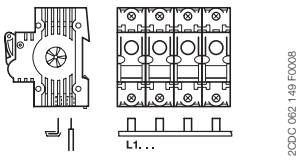




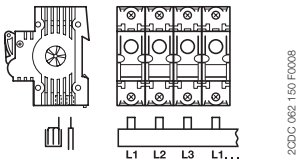

ISS, 1pole
PS 1/39/16 ILTS-E
PS 1/39/30 ILTS-E




ISS, 3pole
PS 3/39/16 ILTS-E
PS 3/39/30 ILTS-E




ILTS-E, 1pole
PS 1/39/16 ILTS-E
PS 1/39/30 ILTS-E

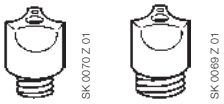



ILTS-E, 3pole
PS 3/39/16 ILTS-E
PS 3/39/30 ILTS-E




Fuse links
D 01
2-16 A

D 02
20-63 A




D0 screw caps

### Busbars for fuse-switch-disconnector ILTS-E and fuse carrier ISS: 1pole or 3pole

End caps:
PS 1/39/16 ILTS-E: END 1.1
PS 1/39/30 ILTS-E: PS-END 3.2
PS 3/39/16 ILTS-E: PS-END
PS 3/39/30 ILTS-E: PS-END 3

**Busbars**

| Cross-section mm² | Length mm | No. of poles | Cu factor | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 16 | 1040 | 39 x 1 | 0.43 | 66956 6 a | PS 1/39/16 ILTS-E | 2CDL 010 101 R1639 | 15 | 0.23 | 10 |
| 30 | 1040 | 39 x 1 | 0.74 | 66957 3 a | PS 1/39/30 ILTS-E* | 2CDL 010 101 R3039 | 15 | 0.487 | 5 |
| 16 | 1040 | 39 x 3 | 1.3 | 66958 0 a | PS 3/39/16 ILTS-E | 2CDL 030 101 R1639 | 15 | 0.59 | 10 |
| 30 | 1040 | 39 x 3 | 1.95 | 66959 7 a | PS 3/39/30 ILTS-E* | 2CDL 030 101 R3039 | 15 | 1.222 | 5 |

a bbn-Nr. 40 16779 * Not compatible with ISS

**End caps**

| Cross-section mm² | Length mm | No. of poles | Cu factor | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | | 63891 3 | END 1.1 | 2CDL 200 011 R0011 | 15 | 0.001 | 50 |
| | | 2/3 | | 51472 9 | PS-END | 2CDL 200 001 R0001 | 15 | 0.001 | 50 |
| | | 2/3 | | 65430 2 | PS-END 3 | 2CDL 200 001 R3001 | 15 | 0.001 | 50 |
| | | 1 | | 66960 3 | PS-END 3.2 | 2CDL 200 001 R3003 | 15 | 0.001 | 50 |

### D0 fuses and accessories

**D0 fuse links to DIN VDE 0636-3, IEC/EN 60269-3 suitable for D01/E14**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | pink | 1.5 | 60480 7 | D01 x 2 gG | GMN 977 120 P0011 | 13 | 0.006 | 10 |
| 4 | brown | 1.5 | 60490 6 | D01 x 4 gG | GMN 977 120 P0012 | 13 | 0.006 | |
| 6 | green | 1.5 | 60500 2 | D01 x 6 gG | GMN 977 120 P0013 | 13 | 0.006 | |
| 10 | red | 1.8 | 60510 1 | D01 x 10 gG | GMN 977 120 P0014 | 13 | 0.006 | |
| 16 | grey | 2.1 | 60520 0 | D01 x 16 gG | GMN 977 120 P0015 | 13 | 0.006 | |

**Suitable for D02/E18**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 20 | blue | 2.3 | 60530 9 | D02 x 20 gG | GMN 977 120 P0017 | 13 | 0.011 | 10 |
| 25 | yellow | 2.6 | 60540 8 | D02 x 25 gG | GMN 977 120 P0018 | 13 | 0.012 | |
| 35 | black | 2.9 | 60550 7 | D02 x 35 gG | GMN 977 120 P0019 | 13 | 0.013 | |
| 50 | white | 3.5 | 60560 6 | D02 x 50 gG | GMN 977 120 P0020 | 13 | 0.014 | |
| 63 | copper | 4.2 | 60570 5 | D02 x 63 gG | GMN 977 120 P0021 | 13 | 0.015 | |




**Connector sleeves**
**D 01** **D 02**
**2-10 A** **2-50 A**




**FD 1713**

**D0 screw caps acc. to DIN VDE 0636-3, IEC/EN 60269-3, 400 V AC**
**Plastic version, RAL 7037**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 16 | for D01 | – | 60790 7 | D01 DIN 49 525 K | GMN 977 130 P0011 | 13 | 0.015 | 20 |
| 63 | for D02 | – | 60800 3 | D02 DIN 49 525 K | GMN 977 130 P0012 | 13 | 0.015 | 20 |

**D0 connector sleeves to DIN VDE 0636-3, IEC/EN 60269-3**
**Suitable for D01/E14**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | pink | – | 60600 9 | D01 x 2 | GMN 977 125 P0001 | 13 | 0.001 | 50 |
| 4 | brown | | 60610 8 | D01 x 4 | GMN 977 125 P0002 | 13 | 0.001 | |
| 6 | green | | 60620 7 | D01 x 6 | GMN 977 125 P0003 | 13 | 0.001 | |
| 10 | red | | 60630 6 | D01 x 10 | GMN 977 125 P0004 | 13 | 0.001 | |

**Suitable for D02/E18**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | pink | – | 60640 5 | D02 x 2 | GMN 977 125 P0011 | 13 | 0.001 | 50 |
| 4 | brown | | 60650 4 | D02 x 4 | GMN 977 125 P0012 | 13 | 0.001 | |
| 6 | green | | 60660 3 | D02 x 6 | GMN 977 125 P0013 | 13 | 0.001 | |
| 10 | red | | 60670 2 | D02 x 10 | GMN 977 125 P0014 | 13 | 0.001 | |
| 16 | grey | | 60680 1 | D02 x 16 | GMN 977 125 P0015 | 13 | 0.001 | |
| 20 | blue | | 60690 0 | D02 x 20 | GMN 977 125 P0016 | 13 | 0.001 | |
| 25 | yellow | | 60700 6 | D02 x 25 | GMN 977 125 P0017 | 13 | 0.001 | |
| 35 | black | | 60710 5 | D02 x 35 | GMN 977 125 P0018 | 13 | 0.001 | |
| 50 | white | | 60720 4 | D02 x 50 | GMN 977 125 P0019 | 13 | 0.001 | |

**Spring clip for use of D01 fuses in D02 screw caps**

| Rated current A | Colour code | Power loss W | Bbn 4012233 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| | | | 15120 7 | FD 1713 | GMN 977 130 P0004 | 13 | 0.001 | 50 |

# Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies




**EPD**



| Operating data | | | |
|---|---|---|---|
| Operating voltage UB: | 24 V DC (18...32 V) | | |
| Current rating IN: | fixed current ratings: 0.5, 1, 2, 3, 4, 6, 8, 10, 12 A | | |
| Closed current I0: | ON condition: typically 20...30 mA depending on signal output | | |
| Staus indication by means of: | multi-colour LED: | Green: | - unit is ON (S1 = ON) |
| | | | - load circuit / Power-is switched on MOSFET |
| | | Orange: | - in the event of overload or short circuit until electronic dis-connection |
| | | Red: | - unit electronically disconnected |
| | | | - load circuit/Power-MOSFET OFF |
| | | | - undervoltage (UB < 8 V) |
| | | | - after switch-on till the end of the delay period |
| | | OFF: | - manually switched off (S1 = OFF) or device is dead |
| | potential-free auxiliary contact F | | |
| | ON/OFF/ condition of switch S1 | | |

| Load circuit | |
|---|---|
| Load output | Power-MOSFET switching output (high slide switch) |
| Overload disconnection | typically 1.1 x IN (1.05...1.35 x IN) |
| Short-circuit current IK | active current limitation (see table 1) |
| Trip time | see time/current characteristics |
| For electronic disconnection | typically 3 s at ILoad > 1.1 x IN<br>typically 100 ms...3 s at ILoad > 1.8 x IN (or 1.5 x IN/1.3 x IN, ) |
| Temperature disconnection | internal temperature monitoring with electronic disconnection |
| Low voltage monitoring load output | with hysteresis, no reset required: load »OFF« at UB< 8 V |
| Starting delay tStart | typically 0.5 sec after every switch-on and after applying US |
| Disconnection of load circuit | electronic disconnection |
| Free-wheeling circuit | suitable external free-wheeling circuit to be used with inductive load |
| Several load outputs must not be connec-ted in parallel | |

| Signal output F | |
|---|---|
| Electrical data | potential-free auxiliary contact max. 30 V DC/0.5 A, min. 10 V DC/10 mA |
| ON condition LED green | voltage UB applied, switch S1 is in ON position no overload, no short circuit |
| OFF condition LED off | device switched off (switch S1 is in OFF position) |
| | no voltage UB applied |
| Fault condition LED orange | overload condition > 1.1 x IN up to electronic disconnection |
| Aux. contact | single signal, make contact |
| | contact open, terminal 13-14 |
| Fault | signal output fault conditions |
| | - no operating voltage UB |
| | - ON/OFF switch S1 is in OFF position |
| | - red LED lighted (electronic discon nection) |

| General data | |
|---|---|
| Fail-Safe element | backup fuse for EPD24 not required |
| | because of the integral redundant fail-safe element |
| Housing material | moulded |
| Mounting | symmetrical rail to EN 50022-35x7.5 |
| Ambient temperature | 0...+50 °C (without condensation, see EN 60204-1) |
| Storage temperature | -20...+70 °C |
| Humidity | 96 hrs/95 % RH/40 °C to IEC 60068-2-78, test Cab. climate class 3K3 to EN 60721 |
| Vibration | 3 g, test to IEC 60068-2-6 test Fc |
| Degree of protection | housing: IP20 DIN 40050 |
| | terminals: IP20 DIN 40050 |
| EMC (EMC directive, CE logo) | emission: EN 61000-6-3 |
| | susceptibility: EN 61000-6-2 |
| Isolations coordination (IEC 60934) | 0.5 kV/pollution degree 2 reinforced insulation in operating area |
| Dielectric strength | max. 32 V DC (load circuit) |
| Isolation resistance (OFF condition) | n/a, only electronic disconnection |
| Approvals/Declarations of conformity | UL 2367 Solid State Overcurrent Protectors |
| | UL 1604, (class I, division 2, groups A, B, C, D) |
| | UL 508 |
| | CSA C22.2 No. 213 (class I, division 2) |
| | CSA C22.2 No. 142 |
| | CSA C22.2 No. 14 |
| | CE logo |
| Dimensions (B x H x T) | 12.5 x 80 x 83 mm |
| Weight | approx. 65 g |

| Terminals Line+/LOAD+/0V | |
|---|---|
| Screw terminals | M4 |
| Max. cable cross section flexible with wire end ferrule w/wo plastic sleeve | 0.5 – 10 $mm^2$ |
| Multi-lead connection (2 identical cables) rigid/flexible | 0.5 – 4 $mm^2$ |
| Flexible with wire end ferrule without plastic sleeve | 0.5 – 2.5 $mm^2$ |
| Flexible with TWIN wire end ferrule with plastic sleeve | 0.5 – 6 $mm^2$ |
| Wire stripping length | 10 mm |
| Tightening torque (EN 60934) | 1.5 – 1.8 Nm |

| Terminals aux. contacts | |
|---|---|
| Screw terminals | M3 |
| Max. cable cross section flexible with wire end ferrule w/wo plastic sleeve | 0.25 - 2.5 $mm^2$ |
| Wire stripping length | 8 mm |
| Tightening torque (EN 60934) | 0.5 Nm |

# Protection and safety

## Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies




EPD24

The protection devices EPD24 extend the ABB product range of modular DIN rail components by electronic overcurrent protection modules for selective protection of 24V DC load circuits. This protection is achieved by a combination of active electronic current limitation in the case of a short circuit and an overload deactivation from 1.1 x In upwards.
If a fault occurs in a load circuit, the protection device EPD24 will detect this rapidly and reliably, disable the power output transistor and hence interrupt the current flow in the defective circuit. The maximum possible overcurrent is always limited to 1.5…1.8 times the selected rated current. An activation of capacitive loads up to 20.000 µF is possible, deactivation only occurring in the case of overloads or short circuits. Selective deactivation of the defective current circuit means undefined error states and a complete system stop are prevented.



Features

- Selective load protection, one electronic trip characteristics.
- Active current limitation for safe connection of capacitive loads up to 20.000 µF and on overload/short circuit.
- Current ratings 0.5 A...12 A.
- Reliable overload disconnection with 1.1 x IN
- Manual ON/OFF button
- Clear status and failure indication through LED and auxiliary contact.
- Integral fail-safe element adjusted to current rating.
- Width per unit only 12.5 mm.
- Rail mounting
- Ease of wiring through busbar LINE+ and 0 V as well as signal bars.
- UL- and CSA-approvals allow international use of the devices.

| Rated current In | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A | EAN | Type code | Order code | | kg | pc. |
| 0.5 | 829960 | EPD24-TB-101-0.5A | 2CDE 601 101 R2905 | | 0.065 | 4 |
| 1 | 829984 | EPD24-TB-101-1A | 2CDE 601 101 R2001 | | 0.065 | 4 |
| 2 | 830003 | EPD24-TB-101-2A | 2CDE 601 101 R2002 | | 0.065 | 4 |
| 3 | 830027 | EPD24-TB-101-3A | 2CDE 601 101 R2003 | | 0.065 | 4 |
| 4 | 830041 | EPD24-TB-101-4A | 2CDE 601 101 R2004 | | 0.065 | 4 |
| 6 | 830065 | EPD24-TB-101-6A | 2CDE 601 101 R2006 | | 0.065 | 4 |
| 8 | 830089 | EPD24-TB-101-8A | 2CDE 601 101 R2008 | | 0.065 | 4 |
| 10 | 830102 | EPD24-TB-101-10A | 2CDE 601 101 R2010 | | 0.065 | 4 |
| 12 | 830126 | EPD24-TB-101-12A | 2CDE 601 101 R2012 | | 0.065 | 4 |

**Accessories**

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Busbars for LINE+ and 0 V, grey insulation, length 500 mm 1) | 830140 | EPD-BB500 | 2CDE 605 100 R0500 | | 0.20 | 10 |
| Signal Bars for aux. contacts, grey insulation, length 21 mm | 830164 | EPD-SB21 | 2CDE 605 200 R0021 | | 0.04 | 10 |

1) Max. load with one line entry Imax = 50 A (recommended: center-feeding)
Max. load with two line entries Imax = 63 A

**Where to find more:**
Technical details for EPD24:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

# Protection and safety
## SQZ3 phase and sequence relay



SQZ3

| Technical features | | |
|---|---|---|
| Supply voltage | [Vn] | 400 V a.c. |
| Frequency | [Hz] | 50/60 |
| Contact type | [A] | 1 CO, 250 V, 10 A (cosφ=1) safety switching |
| Minimum voltage adjustment trimmer | [%] | 100 to 70% of Vn |
| Intervention delay adjustment trimmer | [s] | 2 to 20 (only for min. voltage) |
| Protection degree | [IP] | 20 |
| Operating temperature | [°C] | -10…+55 |
| Power consumption | [W] | 1.5 |
| Modules | [No.] | 3 |



### SQZ3 phase and sequence relay

SQZ3 relay performs the following continue monitoring functions on three-phase networks at 400 V a.c.:
- phase sequence
- phase failure
- minimum voltage (adjustable up to 70% of Vn).

If one of the three failures is detected, the output relay (safety switching contact) intervenes with a
delay adjustable from 2 to 20 seconds for minimum voltage only and controls the following:
- acoustic alarms
- motor controlling contactors
- circuit-breakers with coils.

| | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| | 372004 | SQZ3 | 2CSM111310R1331 | | 0.300 | 1 |

**Where to find more:**
Technical details for SQZ3:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

# Protection and safety
## RH/RL maximum and minimum current/voltage relays




RH/RL

| Technical characteristics | | |
|---|---|---|
| Rated voltage Un | [V] | a.c. 230 |
| Contact type | | 1 CO, 250 V, 16 A |
| Rated frequency | [Hz] | 50/60 |
| Current relay alarm thresholds | [A] | 2, 5, 10 |
| Voltage relay alarm thresholds | [V] | 100, 300, 500 |
| Adj. calibration of In and Vn% | [%] | 30...100 |
| Adjustable hysteresis value | [%] | 1...45 |
| Time delay | [s] | 1...30 |
| Power consumption | [W] | 2 |
| Modules | [No.] | 3 |
| Control relay alarm indication | | red LED on = alarm |
| Power supply lighting indication | | green LED on = ON |
| Alarm indication | | blinking green LED = alarm |

### Maximum and minimum current/voltage relays

These relays are used for monitoring current and voltage on single-phase electrical networks, to ensure perfect protection of the devices installed on the system.
The range includes:

– maximum current (RHI) and maximum voltage (RHV) relays. The control relay remains on as long as the measured quantity stays below the preset threshold value.
– minimum current (RLI) and minimum voltage (RLV) relays. The control relay remains on as long as the measured quantity stays above a preset threshold value.

Both types of relays have trimmers for adjusting the switch-off delay and the hysteresis (from 1 to 45%).
The 100 V and 5 A relay inputs allow indirect connection of external CTs and VTs for monitoring voltage and current values exceeding the maximum device scale

| Type | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| maximum current relay | 334309 | RHI | 2CSM121310R1321 | | 0.300 | 1 |
| maximum voltage relay | 334101 | RHV | 2CSM111310R1321 | | 0.300 | 1 |
| minimum current relay | 334200 | RLI | 2CSM122310R1321 | | 0.300 | 1 |
| minimum voltage relay | 334002 | RLV | 2CSM112310R1321 | | 0.300 | 1 |

**Where to find more:**
Technical details for RH/RL:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

**Frequently asked question - FAQ:**
Can I use RH/RL with current/voltage transformers?
Yes, 5A and 100V inputs are made for that.

# Protection and safety
## E 236 undervoltage monitoring relays




E 236-US 1




E 236-US 2

| Technical features | | |
|---|---|---|
| | | US 1 US 2 |
| Rated voltage | | 250 V a.c. |
| Frequency | | 48-63 Hz |
| Measuring range: | supply voltage | 3N 400/230 V a.c. (terminals N-L1-L2-L3) |
| | overload capacity | 3N 459/265 V a.c. |
| Switching capacity | | device in series (distance < 5 mm): 750 VA (3 A/250 V a.c.); |
| | | device not in series (distance > 5 mm): 1250 VA (5 A/250 V a.c.) |
| Rated insulation voltage | | 250 V a.c. (corresponds with IEC 664-1) |
| Rated surge voltage | | 4 kV |
| Tripping delay | | ca. 100 ms |
| Clearence and creepage distance | | > 6 mm (between contact and electronics) |
| Mechanical service life | | 20 x 106 operations |
| Electrical service life at 10000 VA | | 2 x 105 operations |
| Max. switching rate | | max. 6/min (1000 VA Ohmic load); |
| | | max. 60/min (100 VA Ohmic load) |
| Ambient temperature | | -25 °C/-13 °F to +55 °C/131 °F |
| Overvoltage category | | III |
| Accuracy in non-changing environment: | setting tolerance (US 2) | ≤ 5 % |
| | repeat accuracy | ±1 % |
| | temperature effect | ≤ 0.1 %/°C |
| Terminals | | up to 4 $mm^2$ |
| Specifications | | VDE 0110 and VDE 0435 |
| EMC tests | | EM 50081-1 and EN 50082-2 |
| Displays | | LED green= supply voltage applied; LED yellow= relay status |
| Power loss | | 1.7 W |

### E 236 undervoltage monitoring relays

**Function**

The green LED is lit when the supply voltage is applied. If each phase voltage exceeds 195 V (US1) or exceeds the preset threshold value (US2) with respect to the neutral including the hysteresis when switching the device on, the relay switches immediately into the working position. The yellow LED is lit. If at least one phase voltage falls below the threshold value, the relay goes back into its normal position and the yellow LED goes out.
If also phase 2 fails, the green LED goes out, too.
It is indispensable to connect the neutral conductor!

**Application - devices with 2CO contacts**

For the control of three-phase undervoltage (each phase to neutral) of switchgear, also for installations according to DIN VDE 0100-718 (power installations in hospitals and rooms used for medical purposes outside of hospitals) and DIN VDE 0108-100 (power installations and safety supply in buildings where many people gather).
US 1: 3 phases to neutral with fixed threshold at 195 V; hysteresis fixed 5 %
US 2: 3 phases to neutral with fixed threshold at 160 – 240 V; hysteresis fixed 5 %

| Contact | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 2C0 | 511087 | E 236-US 1 | 2CDE165000R2001 | | 0.095 | 5 |
| 2C0 | 511094 | E 236-US 2 | 2CDE165010R2001 | | 0.095 | 5 |

**Where to find more:**
Technical details for E236:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

# Protection and safety
## E 236 undervoltage monitoring relays




**E 236**

5

| Technical features | | |
|---|---|---|
| | | US 1.1 US 2.1 US 1.1D |
| **Supply circuit** | | |
| Supply voltage (= measured voltage): | | 3N~ 400/230 V AC (terminals N-C1-C2-C3) |
| Overvoltage permanent: | | 3N~ 459/265 V AC |
| Frequency: | | 48 – 63 Hz (AC sinus) |
| Rated surge voltage: | | 4 kV |
| Overvoltage category: | | III |
| **Output circuit (isolated two-way-switch)** | | |
| Rated voltage: | | 250 V AC |
| Switiching capacity: | | 1250 VA (5 A/250 V AC) |
| Continuous current: | | 1250 VA (5 A/250 V AC) |
| Fuse protection: | | 5 A flink |
| Serviceable life, mechanical: | | 15x106 switchover cycles |
| Serviceable life, electric: | | 2x105 switchover cycles at 1.000 VA resistive load |
| Max. switching rate: | | max. 6/min at 1.000 VA resistive load |
| | | max. 60/min at 100 VA resistive load |
| Trip delay: | | ca. 200 ms |
| Pick-up delay (US 1.1D) | | 0.1 – 10 min |
| Accuracy under constant conditions | | ≤ 5 % of full scale value |
| – setting accuracy (US 2.1/1.1D): | | ≤ 2 % |
| – repeat accuracy: | | ≤ 1 % |
| – temperature effect: | | |
| Ambient temperature: | | – 25° to + 55 °C |
| Terminals: | | 1 x 0.5 to 2.5 mm² with/without connector sleeve |
| | | 1 x 4 mm² without connector sleeve |
| | | 2 x 0.5 to 1.5 mm² with/without connector sleeve |
| | | 2 x 2.5 mm² without connector sleeve |
| Pick-up torque: | | max. 1 Nm |
| Mounting position: | | optional |
| Vibration resistance: | | 10 to 55 Hz 0.35 mm (IEC 68-2-6) |
| Shock resistance: | | 15 g 11 ms (IEC 68-2-27) |
| Standards: | | VDE 0110 und VDE 0435 |
| EMC tests: | | EN 61000-6-2 and EN 61000-6-4 |
| Back-up fuse | | ≤ 16 A |
| Displays: | green LED U/t ON | all 3 voltages ok |
| | green LED U/t flashes | time-out indication |
| | yellow LED ON/OFF | position of output relay |

All measured inputs have to be connected to one phase each. If no three-phase measurement should be carried out, measured inputs have to be connected to one phase to apply the required voltage to all measured inputs. If a load causes inverse voltage exceeding the threshold value Us, phase failures cannot be identified.
**A neutral conductor must be connected in any case!**

**Where to find more:**
Technical details for E236:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details




E 236-US 1.1




E 236-US 2.1




E 236-US 1.1D

Devices for panel installation onto mounting rails (35 mm) according to DIN EN 60715
mounting depth: 68 mm
mounting width: 17.5 mm = 1 module
color: gray, RAL 7035

**Application - devices with 1CO contact**

For three-phase undervoltage monitoring (each phase connected to a neutral conductor) of switchgear. Devices with fixed threshold value (US 1.x and US 1.1 D) also for installations according to
DIN VDE 0100-718 (for medical purposes) and DIN VDE 0108-100 (power installations and safety supply in installations for gathering of people).

US 1.1: 3 phases to neutral conductor with fixed threshold value at 195 V; hysteresis fixed at 5 %

US 2.1: 3 phases to neutral conductor with threshold value range of 160 – 240 V; hysteresis fixed at 5 %

US 1.1D: 3 phases to neutral conductor with fixed threshold value at 195 V; hysteresis fixed at 5 %, but with switch-on delay of 0.1 (6 sec.) to 10 min

## Undervoltage monitoring device with pick-up delay E 236-US 1.1D

If the measurement of the voltage of all phases connected exceeds the switching threshold $U_s$, including the hysteresis, the time delay (t) starts to run and the (green LED U/t) flashes. Upon expiry of the time delay (t), the output relay R picks up (yellow LED on, green LED U/t flashes). If the measured voltage of one of the connected phases falls below the switching threshold $U_s$, the output relay de-energizes (yellow LED is off, green LED U/t is off).

| Contact | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 two-way switch | 651776 | E 236-US 1.1 | 2CDE165001R2001 | | 0.05 | 10 |
| 1 two-way switch | 651783 | E 236-US 2.1 | 2CDE165011R2001 | | 0.05 | 10 |
| 1 two-way switch | 651790 | E 236-US 1.1D | 2CDE165001R2011 | | 0.05 | 10 |

# H+ Line. Operational continuity

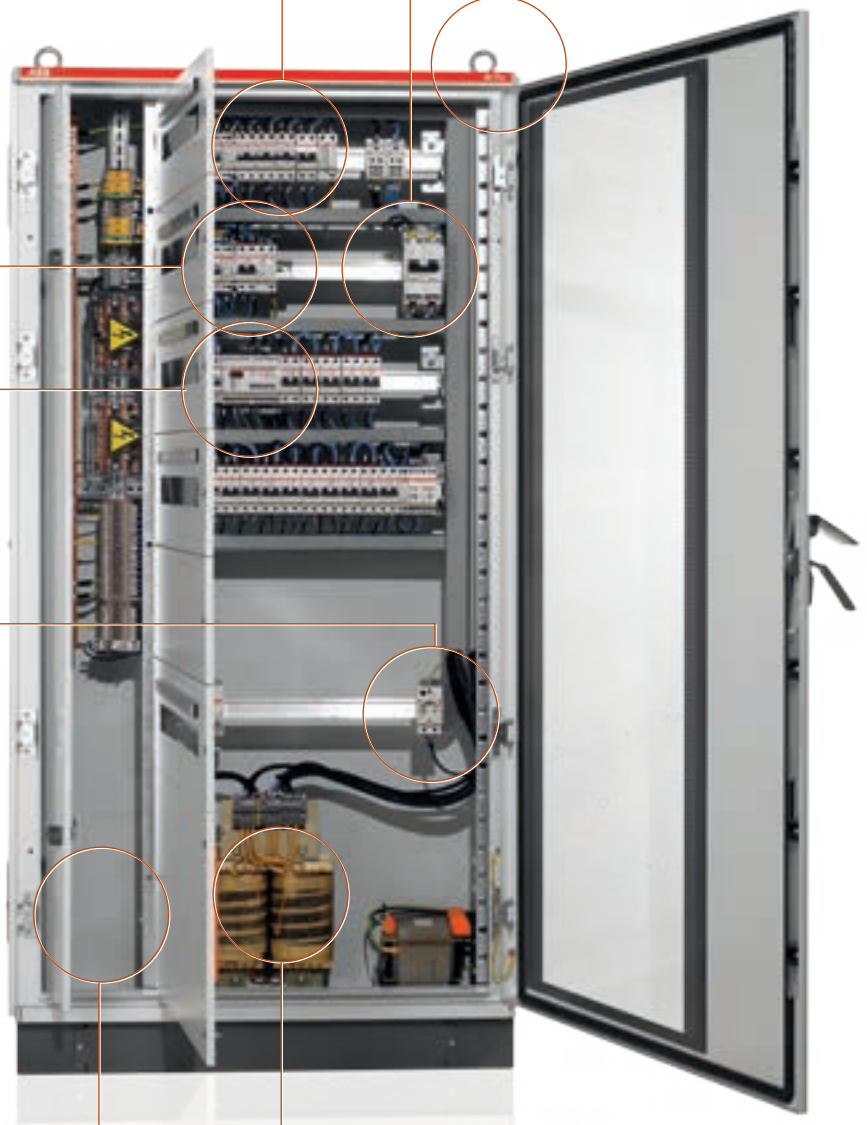
## A wide range which ensure safety and reliability in hospital segment

S200 residual miniature circuit-breakers

S700 E, S750DR selective main circuit-breakers

Lifting eyebolts

OVR surge protection device



ISOLTESTER-DIG-RZ insulation monitoring device

M1175-FL schuko soket outlet

Cable container

TI-S insulating transformers



Specifically designed and assembled for medical use according to the IEC EN 61558-2-15, it ensures protection against indirect contacts without the need to interrupt the circuit automatically upon the first grounding fault.
Thanks to its two PT100 temperature probes, on primary and secondary winding, it is possible to monitor the transformer over temperature produced by any eventual overload, and therefore anticipating any breakdown.
The transformer is mounted on the base of the switchboard in order to ease handling and installation operations.



Artu K series floor standing switchboards are equipped with a cable container that makes installation and wiring easier, both for the electrical systems distributed along the false cieling, as under the floor.
It is possible to reach any terminal block in a comfortable way.
Finally, there is a copper equipotential bonding busbar which may lodge up to 20 additional connections, providing grounding connections to all the external masses which are present in the medical premises, and avoiding the creation of further cascade sub-nodes that are not allowed.



This is an insulation monitoring device for group 2 medical locations fully compliant with the IEC 60364-7-710 reference standard. It integrates all the performances established by the reference standard, such as overload and overcurrent monitoring, together with traditional IT system earthing insulation measurement.




Floor standing QSO switchboards are composed of modular ArTu K series enclosures. The switchboards are equipped with venting grooves that guarantee proper natural convection, useful to dissipate the heat produced by the transformer during its normal functioning.

# Protection and safety
## H+Line products



H like Hospital

+ like health and first aid

+ like the countless advantages of ABB products

### Solutions for the hospital sector

ABB's extensive experience in the hospital field is certified by several installations in leading hospitals, which represent the current leading-edge in safety and technology. Over the years, ABB has developed an increasingly more complete product with higher performance to meet the needs of more demanding customers and guarantee patient and operator safety.
H+Line products are specifically designed for group 2 medical environments in full compliance with Standard IEC 60364-7-710, specifically:

– Intensive therapy wards, operating theatres, cardio surgical rooms, ICU…
– Day hospitals, clinics, rest homes, dental and veterinary clinics, etc.





## H+Line product range

| | | |
|---|---|---|
| ISOLTESTER |  | Insulation monitoring device for IT-M 230 V circuits |
| SELVTESTER |  | Insulation monitoring device for SELV 24 V circuits which supply scialitic lamps. |
| QSD |  | Remote signalling panel for visual and acoustic fault indication. |
| TI |  | Medical insulating transformers for insulated protection systems. |
| QSO |  | Wall mounting and floor standing switchboards for medical locations. |

## Valid assistance for consultants

Everyone knows what the regulations say. ABB tells you what they don't say. The "Practical guide to group 2 medical locations" is designed to be a useful daily tool for consultants and installers to help them in each group 2 hospital electrical system designing and installation. The document was developed toghether with ABB customers with the intent to support key regulatory questions with practical solutions, considerations and reccomendations on system design. This way, the "Practical guide to group 2 medical locations" is a valid tool, with plenty of of examples, to support consultants in their daily job.

# Protection and safety
## ISOLTESTER-DIG insulation monitoring devices




ISOLTESTER-DIG



| Technical features | ISOLTESTER-DIG-RZ | ISOLTESTER-DIGPLUS |
|---|---|---|
| Aux supply | 115 - 230 V 50-60Hz | |
| Power consumption | 5 VA max | 6 VA max |
| Rated voltage | 24÷230V 50-60Hz | 24÷250V ac/dc |
| Measurament current | 1 mA max | |
| Measurement voltage | 24 V max | |
| Control signal | Continuous with digital filter | Composite codified |
| Internal impedance | 200 kΩ | |
| Insulation measurement | 0 ÷ 999 kΩ | |
| | resolution 1 kΩ | |
| | accuracy 5% ± 1 digit | |
| Impedance measurement | 0 ÷ 999 kΩ | |
| | resolution 1 kΩ | |
| Temperature measurement | PT100 with 2 or 3 wires, PTC | |
| | 0÷200 °C, | |
| | resolution 1 °C, | |
| | accuracy 2 % ± 1 digit | |
| Current measurement | TA .../5 A external | |
| | accuracy 5% ± 1 digit, (adjustable transformation rate 1÷40) | |
| Capacity measurement | no | 0 ÷ 9.9 µF |
| | | resolution 0.1 µF |
| Thresholds | Resistance: 50 ÷ 500 kΩ | |
| | Impedance: 50 ÷ 500 kΩ | |
| | Thermal overload: 30 ÷200 °C with PT100 | |
| | Electrical overload: 1 ÷ 99.9 A | |
| Signals | incorrect wiring (link fail) | |
| | open/short circuit for temp sensor PT100 | |
| | internal error | |
| Output | QSD supply (max 2 QSD), max 24Vdc | QSD supply (max 4 QSD), max 24Vdc |
| | Signals to QSD | |
| | aux relay for low resistance, NO-C-NC 5A 250Vac | programmable aux relay, NO-C-NC 5A 250Vac |
| | - | Serial output RS485, ModbusRTU protocol, |
| Modules | 6 | |
| Weight | 0.4 kg | 0.5 kg |
| Mechanical features | fire resistant plastic case | |
| | sealable transparent front cover | |
| Terminals | screw terminals 2.5 $mm^2$ | |
| IP degree | IP20, IP50 when the cover is closed | |
| Operating temperature | -10 ÷ 60 °C | |
| Storage temperature | -25 ÷ 70 °C, humidity < 95% | |
| Insulation | 2.5 kV 60 sec. | |
| Directives | CEI-EN 61010-1 | |
| | CEI-EN 61557-8 | |
| | IEC 60364-7-710 | |
| | UNE 20615 | |
| | CEI-EN 61326-1 | |

**Where to find more:**

Functioning of the frontal operator of ISOLTESTER: Chapter 5 of Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center




ISOLTESTER-DIG

Assuring operational continuity in medical environments, even in presence of first earthing fault, it's mandatory in operating theatre group 2 medical locations.
For this reason an IT distribution system with insulating transformer is used to supply medical equipment.

## ISOLTESTER-DIG

ISOLTESTER range of insulation monitoring device allows IT-M network monitoring, assuring safety for patients and medical personnel avoiding supply interruption in case of first earthing fault according to IEC 60364-7-710 Standard.

The ISOLTESTER-DIG range assures safety to patients and medical personnel, signalling when a fault to earth occurs. Thanks to its innovative technology it is used to sense the insulation level of the network by far more efficiently compared to traditional insulation monitoring devices.



| Advanced features | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| | 884507 | ISOLTESTER-DIG-RZ | 2CSM244000R1501 | | 0.500 | 1 |
| RS485, Max-Min values, Programmable relay, Noise immunization (with codified signal) | 884606 | ISOLTESTER-DIG-PLUS | 2CSM341000R1501 | | 0.500 | 1 |

# Protection and safety
## SELVTESTER insulation monitoring devices for insulated networks at 24 V a.c/d.c.




**SELVTESTER**



| Technical features | |
|---|---|
| Network voltage and auxiliary power supply | 24 V 50-60 Hz/d.c. ± 20% |
| Max power dissipation | 3 VA – 3 W |
| Max measuring current | max. 0.5 mA |
| Internal impedance | 50 kohm |
| Activation threshold setting | programmable to 10 ÷ 50 kohm (4 levels using microswitches) |
| Activation delay | about 1 second |
| Signals | led ON, led ALARM +, led ALARM - |
| Output | for up to 2 QSD-230/24-C, max. 24 V 1 A remote panels |
| Operating / storage temperature | -10 ÷ 60 °C / -20 ÷ 70 °C |
| Relative humidity | ≤ 95% |
| Insulation test | 2.5 kV 60 sec. / 4 kV imp. 1.2/50µs |
| Terminal cross section | 4 mm² |
| Front degree of protection | IP40 with cover / IP20 container |
| Modules | 3 |
| Weight | 200 g |
| Reference standards for safety | IEC 60364-7-710, EN 61326-1, EN 61010-1 |

### SELVTESTER for insulated networks at 24 V a.c/d.c.

It is used to monitor permanently the insulation of safety extremely low voltage circuits (up to 24 V) especially scialitic lamps.

| Function | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Insulation monitoring | 884705 | SELVTESTER-24 | 2CSM211000R1511 | | 0.250 | 1 |

**Where to find more:**
You can find all ABB instruction manuals on www.abb.com/abblibrary/download center

# Protection and safety
## QSD remote signalling panel




QSD

## H+Line

| Technical features | |
|---|---|
| Signals | Green LED network ON<br>Red LED overload ALARM<br>Yellow LED insulation ALARM<br>intermittence 2 Hz dB ALARM, acoustic signaller, emission 2400 Hz |
| Buttons | TEST and MUTE buttons |
| Terminal cross section | 2.5 $mm^2$ |
| Degree of protection | IP30 |
| Installation | universal flush-mounted box |
| Weight | 200 g |
| Operating temperature | -10 ÷ 60 °C, max. humidity 95% |
| Storage temperature | -25 ÷ +80 °C |
| Insulation | 2500 Vrms 50 Hz 60 s |
| Cables section | 0.35 $mm^2$ for 300 m |
| Compatibility | ISOLTESTER-C, ISOLTESTER-RZ, ISOLTESTER-DIG-RZ, ISOLTESTER-DIG, PLUS, SELVTESTER-C, SELVTESTER-24 |
| Reference standards | safety EN 61010-1 product EN 61557-8 / IEC 60364-7-710 / UNE 20615 electromagnetic compatibility EN 61326-1 |



### QSD remote signalling panel

They are installed in combination with insulation monitoring devices, to remotely report the signalling generated by these devices. They can be installed together with ISOLTESTER-DIG and SELVTESTER-24 and they are compatible also with former versions of insulating monitoring devices. Flush mounting box already included in the packaging.

| Version | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Horizontal | 730637 | QSD-DIG 230/24 | 2CSM273063R1521 | | 0.800 | 1 |
| Vertical | 570936 | QSD-DIG 230/24 V | 2CSM257093R1521 | | 0.800 | 1 |

**Where to find more:**
Technical details of QSD:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center



TI



| Technical characteristics | | | | | |
|---|---|---|---|---|---|
| | | TI 3<br>TI 3-S | TI 5<br>TI 5-S | TI 7.5<br>TI7.5-S | TI 10<br>TI 10-S |
| Rated output | [KVA] | 3 | 5 | 7.5 | 10 |
| Frequency | [Hz] | 50-60 | | | |
| Power dissipation | [W] | 120 | 150 | 260 | 320 |
| Electrical protection class | | 1 | | | |
| Thermal insulation class | [°C] | B 130 | B 130 | F 155 | F 155 |
| Operating temperature max | [°C] | 40 | | | |
| Primary winding voltage | [V] | 230 | | | |
| Secondary winding voltage | [V] | 230 | | | |
| No load current | [A] | < 0.39 | < 0.65 | < 0.98 | < 1.3 |
| Short circuit voltage drop | | <3% | | | |
| Inrush current | [A] | < 221 | < 369 | < 553 | < 738 |
| Power loss | [W] | 120 | 150 | 260 | 320 |
| Winding separation | | double insulation | | | |
| Metallic shield | | ■ | | | |
| Reference standard | | IEC-EN 61558-1, IEC-EN 61558-2-15, IEC-EN 62041 | | | |
| Dimensions | [mm] | 205x340x150 | 240x380x150 | 240x380x160 | 277x380x260 |

## Insulating transformers for medical locations

Permanently connected to an IT power supply system, single-phase medical insulating transformers provide galvanic separation between the distribution network and the user load in accordance with IEC EN 61558-2-15 concerning power supply group 2 medical locations.

| Rated oitput<br>kVA | PT100 | Bbn 801254<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| 3 | | 2896005 | TI 3 | 2CSM110000R1541 | | 29.5 | 1 |
| 5 | | 2896104 | TI 5 | 2CSM120000R1541 | | 44.0 | 1 |
| 7.5 | | 2896203 | TI 7.5 | 2CSM130000R1541 | | 50.5 | 1 |
| 10 | | 2521204 | TI 10 | 2CSM140000R1541 | | 73.0 | 1 |
| 3 | ■ | 2521402 | TI 3-S | 2CSM210000R1541 | | 29.5 | 1 |
| 5 | ■ | 2521501 | TI 5-S | 2CSM220000R1541 | | 44.0 | 1 |
| 7.5 | ■ | 2521600 | TI 7.5-S | 2CSM230000R1541 | | 50.5 | 1 |
| 10 | ■ | 2521709 | TI 10-S | 2CSM240000R1541 | | 73.0 | 1 |

| Accessories | | | | | |
|---|---|---|---|---|---|
| | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Shock absorber | 2557920 | AMM | 2CSM900000R1541 | | 1 | 4 |

**Where to find more:**
Wiring and serial number location of TI: Chapter 5 of Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center

# Protection and safety
## QSO selection table

| Series | Type | Power [kVA] | Installation | IT-M lines | TN-S line sect. | PT100 | OVR | Unifix L | I/O KNX | SELV 24 V line |
|---|---|---|---|---|---|---|---|---|---|---|
| S  | QSO 3S Classic | 3 | wall | 2x10A+3x16A | - | ■ | | | | |
| | QSO 5S Classic | 5 | wall | 2x10A+3x16A | - | ■ | | | | |
| | QSO 3S Premium | 3 | wall | 2x10A+5x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | | | | |
| | QSO 5S Premium | 5 | wall | 2x10A+5x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | | | | |
| M  | QSO 3M Classic | 3 | floor | 3x10A+7x16A | 1x16A 0.03A | ■ | | | | |
| | QSO 5M Classic | 5 | floor | 3x10A+7x16A | 1x16A 0.03A | ■ | | | | |
| | QSO 7.5M Classic | 7.5 | floor | 3x10A+7x16A | 1x16A 0.03A | ■ | | | | |
| | QSO 3M Premium | 3 | floor | 6x10A+8x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | ■ | | | ■ |
| | QSO 5M Premium | 5 | floor | 6x10A+8x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | ■ | | | ■ |
| | QSO 7.5M Premium | 7.5 | floor | 6x10A+8x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | ■ | | | ■ |
| L  | QSO 10L Classic | 10 | floor | 6x10A+9x16A | 1x10A 0.03A+2x 16A 0.03A | ■ | | | | |
| | QSO 7.5L Premium | 7.5 | floor | 6x10A+11x 16A+1x32A | 1x10A 0.03A+2x 16A 0.03A | ■ | ■ | | | ■ |
| | QSO 10L Premium | 10 | floor | 6x10A+11x 16A+1x32A | 1x10A 0.03A+2x 16A 0.03A | ■ | ■ | | ■ | ■ |
| XL  | QSO 7.5XL Premium | 7.5+7.5 | floor | 12x10A+22x 16A+2x32A | 2x10A 0.03A+4x 16A 0.03A | ■ | ■ | ■ | ■ | ■ |
| | QSO 10XL Premium | 10+10 | floor | 12x10A+22x 16A+2x32A | 2x10A 0.03A+4x 16A 0.03A | ■ | ■ | ■ | ■ | ■ |

# Protection and safety
## QSO switchboards and components for medical locations



QSO

5

| Technical features | | | | |
|---|---|---|---|---|
| | QSO wall type | | QSO floor type | |
| Rated operational voltage (Ue ) | 230 V ~ ± 15% | | | |
| Rated power frequency | 50 - 60 Hz | | | |
| Number of phases | 1 + N ~/ PE | | | |
| Rated voltage of auxiliary service circuits | 24 - 230 V ~ | | | |
| Rated insulation voltage (UI) | 300 V - *2500 V | | | |
| Earthing system | TT / TN-S | | | |
| Maximum prospective short circuit current to the input terminals (Icc) | 10 kA RMS Sym *** | | | |
| Max. altitude | 2000 m s.l.m. | | | |
| Pollution degree | 1 ** | | | |
| Degree of protection against impacts (IK code) EN 50102 I | K 09 (5 kg - 200 mm) | | | |
| Degree of relative humidity at temperature °C | 50% with max. temp. +40 °C | | | |
| Ambient air temperature - operation | -5 °C - +55 °C | | | |
| Ambient air temperature - transport and storage | -25 °C - +40 °C | | | |
| Degree of protection EN 60529 | QSO 3S Classic | IP 40 | QSO 3M Classic | IP 54 |
| | QSO 5S Classic | IP 40 | QSO 5M Classic | IP 54 |
| | QSO 3S Premium | IP 40 | QSO 5M Premium | IP 54 |
| | QSO 5S Premium | IP 40 | QSO 7.5M Premium | IP 54 |
| | | | QSO 10L Classic | IP 54 |
| | | | QSO 7.5L Premium | IP 54 |
| | | | QSO 10L Premium | IP 54 |
| | | | QSO 7.5XL Premium | IP 54 |
| | | | QSO 10XL Premium | IP 54 |

* Dielectric strength test voltage.
** Corresponds to no pollution or only dry and non-conductive pollution.

*** Value conditioned by upstream coordination with NH 00 100A gL-gG fuses

**Where to find more:**
Technical details of QSO:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center


2CSC400101F0004

QSO S


2CSC400102F0004

QSO M


2CSC400103F0004

QSO L


2CSC400104F0004

QSO XL

H+Line

## Electrical switchboard for medical locations

QSO switchboards for operating theatres represent the ideal solution for distribution within group 2 medical locations, in compliance with the requirements of IEC standard 64-8/7-710. Four sizes are available: S, M, L, and XL. Each one of these can be customized with two layouts. The CLASSIC version contains the instrumentation essential for protection against direct contacts, while the PREMIUM version also has, depending on the type of switchboard, additional devices intended for:

– emergency power cut-off of operating theatre circuits outside of the patient area (lighting, radiology sockets, etc.)
– 24 V SELV line for supplying scialytic lamps
– overvoltage protection
– Unifix L fast-wiring system
– I/O module for managing xon alarms through KNX protocol

XL QSOs are equipped with two isolation transformers to ensure dual redundant power supply of the IT-M circuits. ABB provides, for its switchboards for operating theatres, the declaration of conformity required to commission the system, ensuring the installer that the system is built in compliance with technical standards. To ensure the best efficiency of the QSO will be delivered in a new wooden packing.



**S series switchboards for medical locations**
**Applications: surgery clinics, post-op recovery rooms, analysis laboratories, dental offices, veterinary clinics**

| Power kVA | Installation | TN-S section feeder lines | IT-M section feeder lines | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | wall-mounted | | 2x10A +5x16A +1x25A | 2611226 | QSO 3S Classic | 2CSM261122R1551 | | 113 | 1 |
| 5 | wall-mounted | | 2x10A +5x16A +1x25A | 2736929 | QSO 5S Classic | 2CSM273692R1551 | | 128 | 1 |
| 3 | wall-mounted | 1x10A +2x16A | 2x10A +1x25A +5x16A | 2736028 | QSO 3S Premium | 2CSM273602R1551 | | 150 | 1 |
| 5 | wall-mounted | 1x10A +2x16A | 2x10A +1x25A +5x16A | 2736820 | QSO 5S Premium | 2CSM273682R1551 | | 130 | 1 |

**M series switchboards for medical locations**
**Applications: Day hospital rooms, medium sized operating theatres, ICU rooms**

| Power kVA | Installation | TN-S section feeder lines | IT-M section feeder lines | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 3 | floor standing | 1x10A | 3x10A +7x16A | 2735922 | QSO 3M Classic | 2CSM273592R1551 | | 180 | 1 |
| 5 | floor standing | 1x10A | 3x10A +7x16A | 2736721 | QSO 5M Classic | 2CSM273672R1551 | | 195 | 1 |
| 7.5 | floor standing | 1x10A | 3x10A +7x16A | 2735823 | QSO 7.5M Classic | 2CSM273582R1551 | | 202 | 1 |
| 3 | floor standing | 1X10A +2x16A | 6x10A +8x16A +1x25A | 2736622 | QSO 3M Premium | 2CSM273662R1551 | | 181 | 1 |
| 5 | floor standing | 1X10A +2x16A | 6x10A +8x16A +1x25A | 2735724 | QSO 5M Premium | 2CSM273572R1551 | | 196 | 1 |
| 7.5 | floor standing | 1X10A +2x16A | 6x10A +8x16A +1x25A | 2736523 | QSO 7.5M Premium | 2CSM273652R1551 | | 202 | 1 |

# QSO switchboards and components for medical locations



**L series switchboards for medical locations**
**Applications: operating theatres, intensive care rooms, cardiac operating rooms**

| Power kVA | Installation | TN-S section feeder lines | IT-M section feeder lines | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 10 | floor standing | 1X10A +2x16A | 6x10A +9x16A | 2735625 | QSO 10L Classic | 2CSM273562R1551 | | 244 | 1 |
| 7.5 | floor standing | 1X10A +2x16A | 1x32A +2x25A +6x10A +11x16A | 2736424 | QSO 7.5L Premium | 2CSM273642R1551 | | 222 | 1 |
| 10 | floor standing | 1X10A +2x16A | 1x32A +2x25A +6x10A +11x16A | 2735526 | QSO 10L Premium | 2CSM273552R1551 | | 248 | 1 |

**XL series switchboards for medical locations**
**Applications: resuscitation, intensive care, long term care**

| Power kVA | Installation | TN-S section feeder lines | IT-M section feeder lines | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 7.5+7.5 | floor standing | 2X10A +4x16A | 2x32A +4x25A +12x10A +22x16A | 2736325 | QSO 7.5XL Premium | 2CSM273632R1551 | | 379 | 1 |
| 10+10 | floor standing | 2X10A +4x16A | 2x32A +4x25A +12x10A +22x16A | 2735427 | QSO 10XL Premium | 2CSM273542R1551 | | 429 | 1 |

**Where to find more:**
Technical details of QSO:
Chapter 5 of
Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center

# Protection and safety
## ISL industrial insulation monitoring devices




ISL

**Technical features ISL-A**

| | | | ISL-A | | |
|---|---|---|---|---|---|
| | | | A 24-48 | A 115 and A 230 | A 600 |
| Power consumption | | [VA] | 3 | 4 | 6 |
| ALARM threshold | | [kW] | 30 - 300 (5 levels, selectable) | | |
| TRIP threshold | | [kW] | 10 - 60 (5 levels by switches) | 10 - 100 (5 levels selectable) | 30 - 300 (adjustable by potentiometer) |
| LED indications | ON | | ■ | ■ | ■ |
| | TRIP | | ■ | ■ | ■ |
| | ALARM | | | ■ | |
| | +/- | | ■ | ■ | ■ |
| Max trip delay | | [s] | 0.2 | 2 | 2.5 |
| Max measuring signal current | | [mA] | 0.5 | 1.8 | 1.5 |
| Internal impedance | | [kW] | 50 | ISL-A 115: 200 kΩ L+/L- 100 kΩ L/PE ISL-A 230: 400 kΩ L+/L- 200 kΩ L/PE | 880 kW L+/L - 450 kW L/PE |
| TRIP relay output | | | 1 NO-C-NC | 2 NO-C-NC | 1 NO-C-NC |
| ALARM relay output | | | 2 NO-C-NC | | |
| Relay contact capacity | | | max 250 V, 5 A | | |
| Programmed functions | Alarm output | | ■ | | |
| | Fail safe | | ■ | | |
| | Reset | | ■ | | |
| Insulation | | | 2.5 kV60 sec. / 6 kV imp 1.2/50 µs | 2.5 kV 60 sec. / 4 kV imp 1.2/50 µs | 2.5 kV 60 sec. / 6 kV imp 1.2/50 µs |
| Operating temperature | | [°C] | -10 ÷ 60 | | |
| Storage temperature | | [°C] | -20 ÷ 70 | | |
| Relative humidity | | | ≤ 90% | | |
| Max terminal section | | [mm²] | 4 | 2.5 | 2.5 |
| Protection degree | | | IP40 front, IP20 enclosure | | |
| Modules | | | 3 | 6 | 6 |
| Weight | | [g] | 200 | 400 | 400 |
| Reference standards | | | EN 61010-1, EN 61557-8, EN 61326-1 | | |

**Where to find more:**
Technical details of ISL: Chapter 5 of Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center

# Protection and safety
## ISL industrial insulation monitoring devices



ISL-A

**Technical features ISL-C and ISL-MOT**

| | | | ISL-C | | | ISL-MOT |
|---|---|---|---|---|---|---|
| | | | C 230 | C 440 | C 600 | MOT 1000 |
| Auxiliary power supply | | [V] | 220-240 V a.c. | 220-240 V a.c. | 100÷130 V a.c./ 220÷240 V a.c. | 220- 240 V a.c. |
| Power consumption | | [VA] | 3 | 3 | 5 | 3 |
| TRIP threshold | | [kΩ] | 100 | 10 -150 (5 levels) | 10-100 (5 levels) | 0.1-10 MΩ (8 levels) |
| LED indications | ON | | ■ | ■ | ■ | ■ |
| | TRIP | | ■ | ■ | ■ | ■ |
| | ALARM | | | | ■ | |
| Max trip delay | | [s] | 1 | 4 | 5 | 0.2 |
| Max measuring current | | [mA] | 0.1 | | 0.25 | 0.0015 |
| Max measuring voltage | | [V] | 12 V d.c. | | 48 | 20 |
| Internal impedance | | [kW] | 250 | 250 | 200 | a.c.: 1000 d.c.: 1500 |
| TRIP relay output | | | 1 NO-C-NC | 1 NO-C-NC | 2 NO-C-NC | 1 NO-C-NC |
| Relay contact capacity | | | max 250 V, 5 A | | | |
| Insulation test | | | 2.5 kV60 sec. / 4 kV imp 1.2/50 µs | | | |
| Operating temperature | | [°C] | -10 ÷ 60 | | | |
| Storage temperature | | [°C] | -20 ÷ 70 | | | |
| Relative humidity | | | ≤ 95% | | | |
| Max terminal section | | [mm²] | 4 | 4 | 2.5 | 4 |
| Protection degree | | | IP40 front, IP20 enclosure | | | |
| Modules | | | 3 | 3 | 6 | 3 |
| Weight | | [g] | 200 | 200 | 500 | 200 |
| Reference standards | | | EN 61010-1, EN 61557-8, EN 61326-1 | | | |

**Insulation monitoring devices for voltageless network**

| Monitored line voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 20-700 V a.c./d.c. | 943204 | ISL-MOT 1000 | 2CSM808000R1500 | | 0.300 | 1 |

**Where to find more:**
Technical details of ISL: Chapter 5 of Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center




ISL-A




ISL-C

## Insulation monitoring devices

In IT electrical distribution networks with isolated neutral, the high insulation impedance prevents earth faults from generating currents that would dangerously elevate the potential of exposed conductive parts. Therefore, in case of earth leakage in an IT network it is not necessary to interrupt the supply, but it is still essential to continually monitor the insulation level in order to detect faults and restore optimal functioning of the system.
In industrial installations, IT networks are used when operational continuity is an intrinsic requirement of the production process, due to both technical and economic considerations. Such applications include: metalworking and chemical industries, explosion risk locations, railway lines and vehicles, uninterruptible power supplies, cinema sets, emergency lines, fire water pumps and emergency lighting.



**Insulation monitoring devices for a.c. networks**

| Max. monitored line voltage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 220-240 V a.c. | 942801 | ISL-C 230 | 2CSM444000R1500 | | 0.300 | 1 |
| 380-415 V a.c. | 942900 | ISL-C 440 | 2CSM545000R1500 | | 0.300 | 1 |
| 60-760 V a.c. | 943006 | ISL-C 600 | 2CSM656000R1500 | | 0.500 | 1 |

**Insulation monitoring devices for d.c. networks**

| Max. monitored line voltage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 100-144 V d.c | 942603 | ISL-A 115 | 2CSM222000R1500 | | 0.500 | 1 |
| 220 V d.c. | 942702 | ISL-A 230 | 2CSM333000R1500 | | 0.500 | 1 |
| 400-600 V d.c. | 498537 | ISL-A 600 | 2CSM249853R1500 | | 0.500 | 1 |

**Insulation monitoring devices for a.c./d.c. networks**

| Monitored line voltage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 24-28 V a.c./d.c. | 942504 | ISL-A 24-48 | 2CSM111000R1500 | | 0.300 | 1 |

# Solutions for electrical distribution in buildings
## Command and signalling

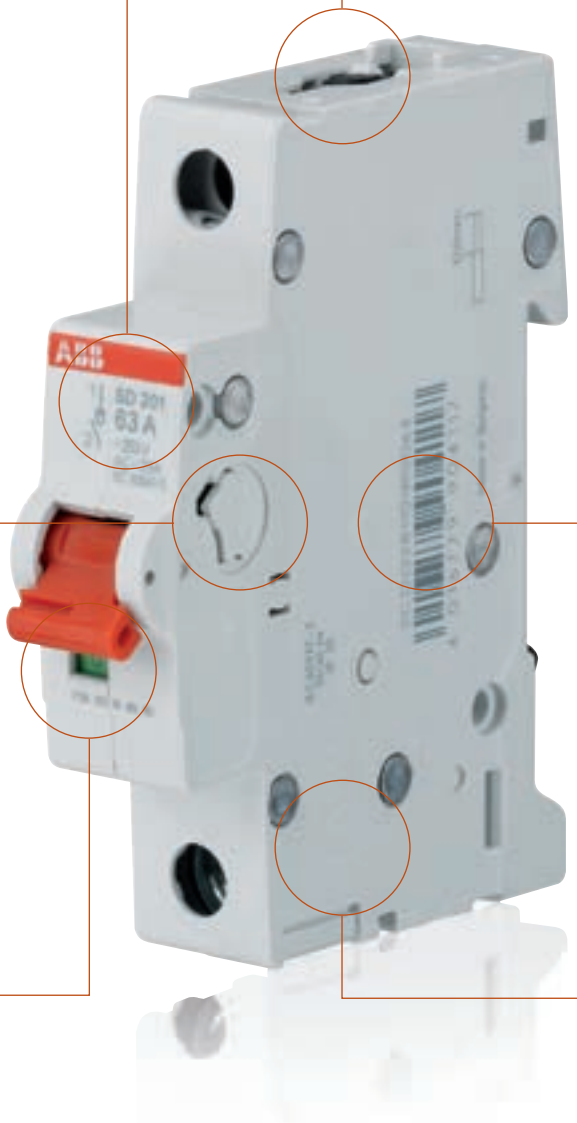
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# The details make the difference
## Switch disconnector SD 200

Easy product coding – easy identification: basic technical information already integrated into the name

New, patented twin terminals with captive screws: highest comfort, safety and flexibility




Fully compatible with all System pro M devices and accessories

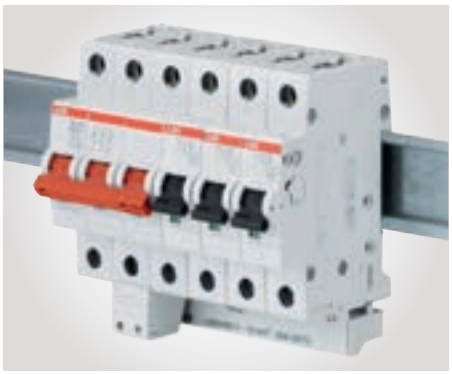
Laser printing: scratch and solvent resistant marking

Real contact position indication, directly connected to the moving contact, for more comfort and safety

New, patented housing design: environmental friendly and performance-optimized

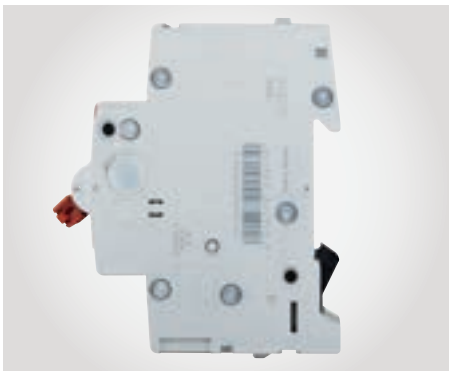


**Contact position indication**
The switch disconnector SD 200 is suited with a real contact position indication (real CPI). You can easily identify, if the SD 200 is in the ON or the OFF position – easy and safe maintenance work is possible. The position of the toggle and the red/green display leaves no doubt about the present switching position, while the latter offers additional security, as the exact position of the inner contacts is always displayed. Thus, the device always supplies reliable information in the event of an error.



**Wide range of accessories**
SD 200 is fully compatible to the complete range of System pro *M* compact accessories like

- Auxiliary contacts, to be mounted on the left side, the right side or bottom fitting
- Shunt trips
- Undervoltage release
- Motor operating devices



**PATENTED – Housing Design**
By using state-of-the-art housing material, ABB is taking care of the environment. With the latest generation of halogen free thermoplastics for SD 200 it's possible to recycle the switch disconectors completely without environmental pollution. The new material also improves the stability.






**Laser printing**
All labels on the SD 200, as the approvals on the dome, technical details and the product identification, are printed by a laser. The laser printing ensures a friction, scratch and solvent resistant marking on the switch disconectors for easy identification in case of maintenance or replacements. For control and acceptance procedure it is important to see all markings also in the mounted position.



**Highest performance**
With a rated voltage of 253/440 V AC, a rated conditional short-circuit current of 25 kA, terminals with protection from misconnection, a "Real CPI" switching position display, as well as full compatibility with all MCB accessories, the SD 200 is unique in its field of application. SD 200 comply with IEC/EN 60947-3.



**PATENTED – IP 20 finger safe terminals**
The SD 200 are equipped with 35 $mm^2$ and 10 $mm^2$ cylinder lift twin terminals for challenging industrial use. Cross wiring can easily be realized by inserting the busbars into the rear terminal part and the incoming wires into the front part.

# Command and signalling
## SD 200 and SHD 200 switch disconnector ranges



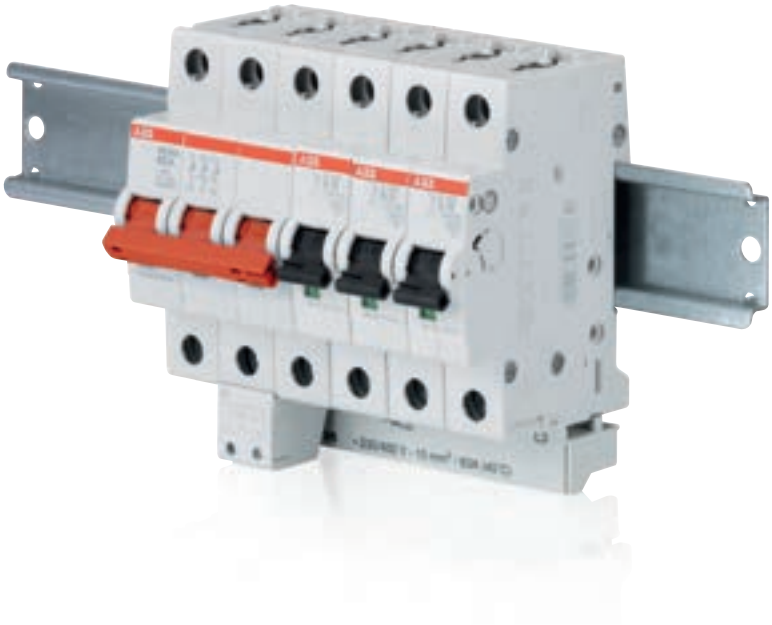


| Series | | | SD 200 | SHD 200 | E 200 |
|---|---|---|---|---|---|
| Standards and approvals | | | IEC/EN 60947-3<br>VDE/CCC/EAC/KEMA | IEC/EN 60947-3<br>VDE/CCC/EAC/KEMA | IEC/EN 60947-3<br>VDE/CCC/KEMA |
| Rated currents | 16...63<br>80...125 | [A] | 16/25/32/40/50/63<br>– | 16/25/32/40/50/63<br>– | –<br>80/100/125 |
| Rated voltage | | [V AC] | 253/440 | 240/415 | 230/400 |
| Short circuit withstand capacity | | [kA] | 25 | 10 | 25 |
| Utilization category | | | AC-23A | AC-22A | AC-22A |
| Electrical lifetime | | [Ops.] | $I_e$ < 32 A: 20,000 (AC)<br>$I_e$ ≥ 32 A: 10,000 (AC) | $I_e$ < 32 A: 20,000 (AC)<br>$I_e$ ≥ 32 A: 10,000 (AC) | $I_e$ < 100 A: 1,500 (AC)<br>$I_e$ ≥ 125 A: 1,000 (AC) |
| Terminal cross section | | [mm²] | 35 | 25 | 50 |
| Terminal | | | Cylinder lift terminal | Cage terminal | Cage terminal |
| Two terminal openings for conductor and busbar | | | Yes | No | No |
| Safety wire guard | | | Yes | No | No |
| Contact position indication | | | Marking on toggle (I ON/O OFF)<br>Real CPI (red ON/green OFF) | Marking on toggle (I ON/O OFF) | Marking on toggle (I ON/O OFF) |
| Combination with auxiliary elements | | | | | |
| Auxiliary contacts | | | Right side<br>Left side<br>Bottom side | No | Right side |
| Shunt trip | | | Yes | No | No |
| Undervoltage release | | | Yes | No | No |
| Motor operated remote control | | | Yes | No | No |
| Padlock | | | Yes | Yes | Yes |
| Removal without disassembling of the busbar | | | Yes | No | Yes |

# Command and signalling
## Switch disconnectors selection table

The SD 200 and SHD 200 extend the proven System pro *M* compact® series by new ranges of switch disconnectors which provides state-of-the-art safety and comfort. Both are available with 1 to 4 poles with rated currents from 16 to 63 A and provides disconnection properties according to IEC/EN 60947-3.
The SD 200 offers performance on a new level. With a rated voltage of 253/440 V AC, a rated conditional short-circuit current of 25 kA, terminals with protection from misconnection and a “Real CPI” contact position indication the range is unique in its field of application. In addition SD 200 is fully compatible with all MCB accessories.
The SHD 200 has a rated voltage of 240/415 V AC. A rated conditional short-circuit current of 10 kA enables a wide range of applications.
The laser printing and the design of the devices allow a consistent optical appearance in the distribution board.
The laser printing and the design of the devices allow a consistent optical appearance in the distribution board. A VDE/CCC/EAC and KEMA approval ensures a wide scope of applications.
For technical differences between the ranges please refer to the selection table on the left page.





# Command and signalling
## SD 200 switch disconnector



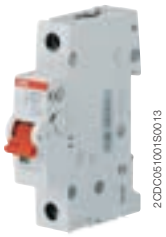

SD 201

| | |
|---|---|
| **Electrical data** | |
| Standards | IEC/EN 60947-3 |
| Poles | 1P, 2P, 3P, 4P |
| Rated current $I_e$ | 16 A, 25 A, 32 A, 40 A, 50 A, 63 A |
| Utilization category | AC-23A, DC-21A |
| Rated voltage $U_e$ | 1P: 253 V AC, 60 V DC<br>2P: 440 V AC, 125 V DC<br>3…4P: 440 V AC |
| Insulation voltage $U_i$ | 440 V AC |
| Max. power frequency recovery voltage $U_{max}$ | 1P: 266 V AC, 63 V DC<br>2P: 462 V AC, 131 V DC<br>3…4P: 462 V AC |
| Min. operating voltage $U_{Bmin}$ | 12 V AC |
| Rated frequency f | 50/60 Hz, DC |
| Suitable for isolation | Yes |
| Rated conditional short-circuit current | 25 kA in series with NH 00 ≤ 63 A gG |
| Overvoltage category | III |
| Pollution degree | 3 |
| Rated impulse withstand voltage $U_{imp}$ (1.2/50 µs) | 4 kV (test voltage 6.2 kV at sea level; 5 kV at 2,000 m) |
| Dielectric test voltage | 2 kV (50/60 Hz, 1 min.) |
| Mechanical data | |
| Housing | Insulation group I, RAL 7035 |
| Toggle | Insulation group II, red, sealable |
| Contact position indication | Marking on toggle, I ON / 0 OFF<br>Real CPI (green OFF/red ON) |
| Protection degree acc. to EN 60529 | IP20 / IP40 in enclosure with cover |
| Electrical endurance | $I_e$ < 32 A: 20,000 ops. (AC), 1,500 ops. (DC)<br>$I_e$ ≥ 32 A: 10,000 ops. (AC), 1,500 ops. (DC) |
| Mechanical endurance | 20,000 ops. |
| Shock resistance acc. to IEC/EN 60068-2-27 | 25g, 2 shocks, 13 ms |
| Vibration resistance acc. to IEC/EN 60068-2-6 | 5g, 20 cycles at 5…150…5 Hz with load 0.8 $I_n$ |
| Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30 | 28 cycles with 55 °C/90-96% and 25 °C/95-100% [°C/RH] |
| Ambient temperature | -25 ... +55 °C |
| Storage temperature | -40 ... +70 °C |
| **Installation** | |
| Terminal | Cylinder lift terminal |
| Safety wire guard | Yes |
| Two terminal openings for conductor and busbar | Yes |
| Cross-section of conductors | 35 $mm^2$ |
| Cross-section of busbars | 10 $mm^2$ |
| Torque | 2.8 Nm |
| Screwdriver | No. 2 Pozidriv |
| Mounting | On DIN rail 35 mm acc. to EN 60715 by fast clip |
| Mounting position | Optional |
| Removal without disassembling of the busbar | Yes |
| Supply | Optional |
| **Dimensions and weight** | |
| Mounting dimensions acc. to DIN 43880 | Mounting dimension 1 |
| Pole dimensions (H x D x W) | 88 x 69 x 17.5 mm |
| Pole weight | Approx. 85 g |
| **Combination with auxiliary elements** | |
| Auxiliary contact | Yes |
| Signal/auxiliary contact | Yes |
| Shunt trip | Yes |
| Undervoltage release | Yes |
| Motor operating device | Yes |
| Padlock | Yes |
| **Approvals** | |
| | CE and RoHS-conform<br>Approvals: VDE/CCC/EAC/KEMA |



**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
Accessories for SD 200 p.4/2



SD 201



SD 202



SD 203



SD 204

## SD 200

Switch disconnector acc. to IEC/EN 60947-3 for panel installation onto DIN rail (35 mm)
Mounting depth: 68 mm
Mounting width: per pole = 17.5 mm = 1 module
Colour: grey, RAL 7035
Colour of switch lever: red RAL 3000

### Special features

- Isolating characteristics acc. to IEC/EN 60947-3
- Clear contact position indication in red/green (“Real CPI”)
- Highest performance at an increased voltage level: 25 kA conditional short-circuit current at $U_e$ = 253/440 V AC acc. to IEC/EN 60947-3
- Protection degree IP20 = finger safe
- 35 mm² cylinder lift terminal with 2 terminal openings for two wires or one wire and one busbar for cross wiring
- Bottom fixed auxiliary contact as accessory for a space saving installation or upgrade of existing assemblies without additional mounting width
- Consistent design to other System pro *M* DIN rail products
- Cross wiring with MCBs or RCDs using busbars PS
- Durable device identification due to laser labeling
- Captive screws
- Compatibility with all MCB accessories
- Approved acc. to IEC/EN 60947-3 for international use

### Ordering details

**Rated current: 16 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 253 | 904063 | SD201/16 | 2CDD281101R0016 | | 0.085 | 10 |
| 2 | 440 | 904124 | SD202/16 | 2CDD282101R0016 | | 0.170 | 5 |
| 3 | 440 | 904186 | SD203/16 | 2CDD283101R0016 | | 0.255 | 1 |
| 4 | 440 | 904247 | SD204/16 | 2CDD284101R0016 | | 0.340 | 1 |

**Rated current: 25 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 253 | 904070 | SD201/25 | 2CDD281101R0025 | | 0.085 | 10 |
| 2 | 440 | 904131 | SD202/25 | 2CDD282101R0025 | | 0.170 | 5 |
| 3 | 440 | 904193 | SD203/25 | 2CDD283101R0025 | | 0.255 | 1 |
| 4 | 440 | 904254 | SD204/25 | 2CDD284101R0025 | | 0.340 | 1 |

**Rated current: 32 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 253 | 904087 | SD201/32 | 2CDD281101R0032 | | 0.085 | 10 |
| 2 | 440 | 904148 | SD202/32 | 2CDD282101R0032 | | 0.170 | 5 |
| 3 | 440 | 904209 | SD203/32 | 2CDD283101R0032 | | 0.255 | 1 |
| 4 | 440 | 904261 | SD204/32 | 2CDD284101R0032 | | 0.340 | 1 |



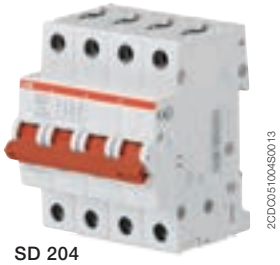

SD 201




SD 202




SD 203




SD 204

## Ordering details

**Rated current: 40 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 253 | 904094 | SD201/40 | 2CDD281101R0040 | | 0.085 | 10 |
| 2 | 440 | 904155 | SD202/40 | 2CDD282101R0040 | | 0.170 | 5 |
| 3 | 440 | 904216 | SD203/40 | 2CDD283101R0040 | | 0.255 | 1 |
| 4 | 440 | 904278 | SD204/40 | 2CDD284101R0040 | | 0.340 | 1 |

**Rated current: 50 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 253 | 904100 | SD201/50 | 2CDD281101R0050 | | 0.085 | 10 |
| 2 | 440 | 904162 | SD202/50 | 2CDD282101R0050 | | 0.170 | 5 |
| 3 | 440 | 904223 | SD203/50 | 2CDD283101R0050 | | 0.255 | 1 |
| 4 | 440 | 904285 | SD204/50 | 2CDD284101R0050 | | 0.340 | 1 |

**Rated current: 63 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 253 | 904117 | SD201/63 | 2CDD281101R0063 | | 0.085 | 10 |
| 2 | 440 | 904179 | SD202/63 | 2CDD282101R0063 | | 0.170 | 5 |
| 3 | 440 | 904230 | SD203/63 | 2CDD283101R0063 | | 0.255 | 1 |
| 4 | 440 | 904292 | SD204/63 | 2CDD284101R0063 | | 0.340 | 1 |



**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

**Maybe you are also interested in:**
Accessories for SD 200 p.4/2

# Command and signalling
## SHD 200 switch disconnector




SHD 201

| Electrical data | |
|---|---|
| Standards | IEC/EN 60947-3 |
| Poles | 1P, 2P, 3P, 4P |
| Rated current $I_e$ | 16 A, 25 A, 32 A, 40 A, 50 A, 63 A |
| Utilization category | AC-22A, DC-21A |
| Rated voltage $U_e$ | 1P: 240 V AC, 60 V DC<br>2P: 415 V AC, 125 V DC<br>3…4P: 415 V AC |
| Insulation voltage $U_i$ | 440 V AC |
| Max. power frequency recovery voltage $U_{max}$ | 1P: 252 V AC, 63 V DC<br>2P: 436 V AC, 131 V DC<br>3…4P: 436 V AC |
| Min. operating voltage $U_{Bmin}$ | 12 V AC |
| Rated frequency f | 50/60 Hz, DC |
| Suitable for isolation | Yes |
| Rated conditional short-circuit current | 10 kA in series with NH 00 ≤ 63 A gG |
| Overvoltage category | III |
| Pollution degree | 3 |
| Rated impulse withstand voltage $U_{imp}$ (1.2/50 µs) | 4 kV (test voltage 6.2 kV at sea level; 5 kV at 2,000 m) |
| Dielectric test voltage | 2 kV (50/60 Hz, 1 min.) |
| **Mechanical data** | |
| Housing | Insulation group II, RAL 7035 |
| Toggle | Insulation group II, red, sealable |
| Contact position indication | Marking on toggle, I ON / 0 OFF |
| Protection degree acc. to EN 60529 | IP20 / IP40 in enclosure with cover |
| Electrical endurance | $I_e$ < 32 A: 20,000 ops. (AC), 1,500 ops. (DC)<br>$I_e$ ≥ 32 A: 10,000 ops. (AC), 1,500 ops. (DC) |
| Mechanical endurance | 20,000 ops. |
| Shock resistance acc. to IEC/EN 60068-2-27 | 25g, 2 shocks, 13 ms |
| Vibration resistance acc. to IEC/EN 60068-2-6 | 5g, 20 cycles at 5…150…5 Hz with load 0.8 $I_n$ |
| Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30 | 28 cycles with 55 °C/90-96% and 25 °C/95-100% [°C/RH] |
| Ambient temperature | -25 … +55 °C |
| Storage temperature | -40 … +70 °C |
| **Installation** | |
| Terminal | Cage terminal |
| Safety wire guard | No |
| Two terminal openings for conductor and busbar | No |
| Cross-section of conductors | 25 $mm^2$ |
| Torque | 2.0 Nm |
| Screwdriver | No. 2 Pozidriv |
| Mounting | On DIN rail 35 mm acc. to EN 60715 by fast clip |
| Mounting position | Optional |
| Removal without disassembling of the busbar | No |
| Supply | Optional |
| **Dimensions and weight** | |
| Mounting dimensions acc. to DIN 43880 | Mounting dimension 1 |
| Pole dimensions (H x D x W) | 85 x 69 x 17.5 mm |
| Pole weight | Approx. 75 g |
| **Combination with auxiliary elements** | |
| Auxiliary contact | No |
| Signal/auxiliary contact | No |
| Shunt trip | No |
| Undervoltage release | No |
| Motor operating device | No |
| Padlock | Yes |
| **Approvals** | |
| | CE and RoHS conform<br>Approvals: VDE/CCC/EAC/KEMA |

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166

# Command and signalling
## SHD 200 switch disconnector




SHD 201




SHD 202




SHD 203




SHD 204

### SHD 200

Switch disconnector acc. to IEC/EN 60947-3 for panel installation onto DIN rail (35 mm)
Mounting depth: 69 mm
Mounting width: per pole = 17.5 mm = 1 module
Colour: grey, RAL 7035
Colour of switch lever: red RAL 3000

### Special features

- Isolating characteristics acc. to IEC/EN 60947-3
- Protection degree IP20 = finger safe
- 25 mm² cage terminal
- Consistent design to all other System pro *M* DIN rail products
- Cross wiring with MCBs or RCDs using busbars PS
- Durable device identification due to laser labeling
- Captive screws
- Locking device as accessory for unauthorized ON/OFF switching
- Approved acc. to IEC/EN 60947-3 for international use

### Ordering details

**Rated current: 16 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 240 | 904308 | SHD201/16 | 2CDD271111R0016 | | 0.075 | 10 |
| 2 | 415 | 904360 | SHD202/16 | 2CDD272111R0016 | | 0.150 | 5 |
| 3 | 415 | 904421 | SHD203/16 | 2CDD273111R0016 | | 0.225 | 1 |
| 4 | 415 | 904483 | SHD204/16 | 2CDD274111R0016 | | 0.300 | 1 |

**Rated current: 25 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 240 | 904315 | SHD201/25 | 2CDD271111R0025 | | 0.075 | 10 |
| 2 | 415 | 904377 | SHD202/25 | 2CDD272111R0025 | | 0.150 | 5 |
| 3 | 415 | 904438 | SHD203/25 | 2CDD273111R0025 | | 0.225 | 1 |
| 4 | 415 | ,904490 | SHD204/25 | 2CDD274111R0025 | | 0.300 | 1 |

**Rated current: 32 A**

| Poles | Rated voltage V AC | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 240 | 904322 | SHD201/32 | 2CDD271111R0032 | | 0.075 | 10 |
| 2 | 415 | 904384 | SHD202/32 | 2CDD272111R0032 | | 0.150 | 5 |
| 3 | 415 | 904445 | SHD203/32 | 2CDD273111R0032 | | 0.225 | 1 |
| 4 | 415 | 904506 | SHD204/32 | 2CDD274111R0032 | | 0.300 | 1 |

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/166




SHD 201




SHD 202




SHD 203




SHD 204

## Ordering details

**Rated current: 40 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 240 | 904339 | SHD201/40 | 2CDD271111R0040 | | 0.075 | 10 |
| 2 | 415 | 904391 | SHD202/40 | 2CDD272111R0040 | | 0.150 | 5 |
| 3 | 415 | 904452 | SHD203/40 | 2CDD273111R0040 | | 0.225 | 1 |
| 4 | 415 | 904513 | SHD204/40 | 2CDD274111R0040 | | 0.300 | 1 |

**Rated current: 50 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 240 | 904346 | SHD201/50 | 2CDD271111R0050 | | 0.075 | 10 |
| 2 | 415 | 904407 | SHD202/50 | 2CDD272111R0050 | | 0.150 | 5 |
| 3 | 415 | 904469 | SHD203/50 | 2CDD273111R0050 | | 0.225 | 1 |
| 4 | 415 | 904520 | SHD204/50 | 2CDD274111R0050 | | 0.300 | 1 |

**Rated current: 63 A**

| Poles | Rated voltage | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | V AC | EAN | Type code | Order code | | kg | pc. |
| 1 | 240 | 904353 | SHD201/63 | 2CDD271111R0063 | | 0.075 | 10 |
| 2 | 415 | 904414 | SHD202/63 | 2CDD272111R0063 | | 0.150 | 5 |
| 3 | 415 | 904476 | SHD203/63 | 2CDD273111R0063 | | 0.225 | 1 |
| 4 | 415 | 904537 | SHD204/63 | 2CDD274111R0063 | | 0.300 | 1 |

# Command and signalling
## E 200 switches



E 200

| Technical data | | |
|---|---|---|
| **Electrical Data** | | |
| Standards | DIN EN 60947-3 (VDE0660-107); IEC/EN 60947-3 | |
| Number of poles | 1P, 2P, 3P, 4P | |
| Rated current $I_e$ | 80...125 A | |
| Rated voltage $U_e$ | 230/400 V AC; 60 V DC | |
| Rated frequency f | 50/60 Hz; DC | |
| Utilization category | $I_e$ 80 … 100 A | AC-22A (1..4-pole) |
| | | DC-21B (1/2-pole) |
| | $I_e$ 125A | AC-23A (1/2-pole) |
| | | DC-21B (1/2-pole) |
| | Acc. to DIN EN 60947-3 (VDE0660-107); IEC/EN 60947-3 | |
| Protection fuse | NH 00 gG ≤ Rated current E200 | |
| Positive opening | Acc. to DIN VDE 0113 | |
| Rated conditional short-circuit current | 16 … 100 A (1- to 4-pole): 25 kA, 125 A (1-/2-pole): 6 kA | |
| Surge withstand capability $U_{imp}$ | 4 kV (EN 60947-1) | |
| Min. voltage $U_{min.}$ | 12 V AC/DC bei 0.1 VA | |
| Min. contact loading | 24 V AC; 4 mA | |
| **Mechanical Data** | | |
| Housing | Grey, RAL 7035 | |
| Toggle | Red (RAL 3000) / grey (RAL 7000), sealable | |
| Contact position indication | On toggle (I ON / 0 OFF), on dome (I / 0) | |
| Protection degree acc. to IEC/EN 60529 | IP10, IP40 in enclosure with cover | |
| Electrical endurance | 80 … 100 A: 1,500 ops., 125 A: 1,000 ops. | |
| Mechanical endurance | 20,000 ops. | |
| Environmental conditions acc. to IEC/EN | Constant climate 23/83, 40/93, 55/20 [°C/RH] | |
| 60068-2-30 | Alternating climate 25/95 - 40/93 [°C/RH] | |
| Ambient temperature | -25 … +55 °C | |
| Storage temperature | -40 … +70 °C | |
| **Installation** | | |
| Terminal size | 2.5 to 50 $mm^2$ | |
| Cross-section busbar | ≥ 16 $mm^2$ | |
| Tigthening torque | 2.5 Nm | |
| Screw driver | Nr. 2 Pozidriv | |
| Mounting | On DIN rail 35 mm acc. to EN 60715 by fast clip | |
| Mounting position | Any | |
| Supply | Any | |
| **Dimensions and weight** | | |
| Mounting dimensions acc. to DIN 43880 | Mounting dimension 1 | |
| Pole dimensions (H x D x W) | 85 x 70 x 17.5 mm | |
| Pole weight | Ca. 95 g | |
| **Accessories** | | |
| Auxiliary contact | Max. 3x S2C-H 6R | |
| Approvals | CE and RoHS conform | |
| | Approvals: VDE, CCC, KEMA, EAC | |



**Where to find more:**
Assembling of S2C-H 6R and E 200:
Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of p.15/166




E 201

## E 200 switches

Isolator for panel installation onto DIN rail acc. to DIN EN 60715

Mounting depth: 70 mm
Mounting width: per pole = 17.5 mm = 1 module
Colour: grey, RAL 7035
Colour of switch lever: red RAL 3000 (r); grey RAL 7000 (g)

### Special features

- Fast removal without dismantling of the busbar
- Captive screws with recessed/slotted head, Pozidriv size 2
- Add-on of up to 3 auxiliary contact S2C-H6R possible
- Integrated lay-on edge for labeling system ILS
- Locking device as accessory for unauthorized ON/OFF
- Approval: VDE, CCC, KEMA, EAC



**Rated current: 80 A**

| Poles | Rated voltage | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V AC | W | EAN | Type code | Order code | | kg | pc. |
| 1NO | 230 | 2.60 | 645737 | E201/80g | 2CDE281001R1080 | | 0.095 | 10 |
| 1NO | 230 | 2.60 | 645744 | E201/80r | 2CDE281001R0080 | | 0.095 | 10 |
| 2NO | 400 | 5.15 | 645911 | E202/80g | 2CDE282001R1080 | | 0.190 | 5 |
| 2NO | 400 | 5.15 | 645928 | E202/80r | 2CDE282001R0080 | | 0.190 | 5 |
| 3NO | 400 | 7.75 | 646093 | E203/80g | 2CDE283001R1080 | | 0.290 | 3 |
| 3NO | 400 | 7.75 | 646109 | E203/80r | 2CDE283001R0080 | | 0.290 | 3 |
| 4NO | 400 | 10.30 | 646277 | E204/80g | 2CDE284001R1080 | | 0.390 | 2 |
| 4NO | 400 | 10.30 | 646284 | E204/80r | 2CDE284001R0080 | | 0.390 | 2 |

**Rated current: 100 A**

| Poles | Rated voltage | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V AC | W | EAN | Type code | Order code | | kg | pc. |
| 1NO | 230 | 3.95 | 645751 | E201/100g | 2CDE281001R1100 | | 0.095 | 10 |
| 1NO | 230 | 3.95 | 645738 | E201/100r | 2CDE281001R0100 | | 0.095 | 10 |
| 2NO | 400 | 7.90 | 645935 | E202/100g | 2CDE282001R1100 | | 0.190 | 5 |
| 2NO | 400 | 7.90 | 645942 | E202/100r | 2CDE282001R0100 | | 0.190 | 5 |
| 3NO | 400 | 11.85 | 646116 | E203/100g | 2CDE283001R1100 | | 0.290 | 3 |
| 3NO | 400 | 11.85 | 646123 | E203/100r | 2CDE283001R0100 | | 0.290 | 3 |
| 4NO | 400 | 15.80 | 646291 | E204/100g | 2CDE284001R1100 | | 0.390 | 2 |
| 4NO | 400 | 15.80 | 646307 | E204/100r | 2CDE284001R0100 | | 0.390 | 2 |

**Rated current: 125 A**

| Poles | Rated voltage | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V AC | W | EAN | Type code | Order code | | kg | pc. |
| 1NO | 230 | 6.10 | 645775 | E201/125g | 2CDE281001R1125 | | 0.095 | 10 |
| 1NO | 230 | 6.10 | 645782 | E201/125r | 2CDE281001R0125 | | 0.095 | 10 |
| 2NO | 400 | 12.20 | 645959 | E202/125g | 2CDE282001R1125 | | 0.190 | 5 |
| 2NO | 400 | 12.20 | 645966 | E202/125r | 2CDE282001R0125 | | 0.190 | 5 |
| 3NO | 400 | 18.30 | 646130 | E203/125g ① | 2CDE283001R1125 | | 0.33 | 3 |
| 3NO | 400 | 18.30 | 646147 | E203/125r ① | 2CDE283001R0125 | | 0.33 | 3 |
| 4NO | 400 | 24.35 | 646314 | E204/125g ① | 2CDE284001R1125 | | 0.44 | 2 |
| 4NO | 400 | 24.35 | 646321 | E204/125r ① | 2CDE284001R0125 | | 0.44 | 2 |

① without approvals

# Command and signalling
## E 463/3, E 480/3 switches


2CSC400458F0201

E463/3-KB


2CSC400433F0201

E463/3-SL


2CSC400455F0201

SA 2

| Technical features | |
|---|---|
| Switching capacity | 1.25 In; 1.1 Un; cosϕ = 0.6 according to DIN VDE 0632 |
| Rated voltage | 250/400 V a.c. |
| Connection cross section | 1 mm² stranded wire/0.5 mm² wire up to 25 mm² |
| Pick-up torque | 3 Nm max. |
| Positive opening | according to DIN VDE 0113 |
| Ambient temperature | -25°C to +55°C |
| Storage temperature | -40°C to +70°C |
| Poles | 3 NO |
| Short-circuit withstanding capacity | 10 kA, 400 V a.c. |

**E 463/3-KB, E 480/3-KB, E 463/3-SL switches**

| Poles | Power loss | Rated voltage | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | W | V AC | EAN | Type code | Order code | | kg | pc. |
| 63 | 5.4 | 250/400 | 932528 | E 463/3-KB | 2CCE160300R0131 | | 0.190 | 1 |
| 63 | 5.5 | 250/400 | 932535 | E 463/3-SL | 2CCE160301R0131 | | 0.195 | 1 |
| 80 | 9.9 | 250/400 | 932542 | E 480/3-KB | 2CCE180300R0141 | | 0.210 | 1 |

**Padlock for E 463/3-SL with 2 keys**

| | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 587704 | SA 2 | GJF1101903R0002 | | 0.020 | 1 |

# Command and signalling
## S800PV series 1500 switch disconnector




**S800PV-M**

| | | | S800PV-M | S802PV-M-H |
|---|---|---|---|---|
| General Data | Standards | | IEC / EN 60947-3 | IEC / EN 60947-3 |
| | Poles | | 2 … 4 | 2 (polarized) |
| | Tripping characteristics | | | |
| | Rated current Ie | A | 32, 63, 125 | 32, 63, 100 |
| | Rated frequency f | Hz | | |
| | Rated insulation voltage Ui acc. to IEC/EN 60664-1 | V | DC 1500 | DC 1500 |
| | Rated impulse withstand voltage Uimp. (1.2/50µs) | kV | 8 | |
| | Overvoltage category | | III | |
| | Pollution degree | | 2 | |
| | Suitability for isolation | | yes | |
| Data acc. to IEC/EN 60947-3 | Rated operational voltage Ue | V | DC 800V: 2-pole DC 1200V: 3-pole DC 1200V: 4-pole | DC 1000V: 2-pole |
| | Min. operating voltage | V | - | - |
| | Rated short-term withstand current Icw | kA | 1,5 | |
| | Rated short-circuit making capacity Icm | kA | 0,5 | |
| | Utilisation category | | DC-21A | |
| | Electrical and Mechanical Endurance | ops. | 10 … 100A: 1500 electric; 8500 mechanic 125A: 1000 electric, 7000 mechanic acc. to IEC 60947-3 | |
| Mechanical Data | Housing | | Material group I, RAL 7035 | |
| | Toggle | | black, lockable | |
| | Classification acc. To NF F 126-101, NF F 16-102 | | | |
| | Protection degree acc. to EN 60529 | | IP20, IP40 (actuating end only) | |
| | Mechanical endurance | ops. | 10'000 cylces | 10'000 cylces |
| | Shock resistance acc. to IEC/EN 60068-2-30 | | IEC 61373 Cat. 1 Class B, 5g / 30ms acc. To IEC 60068-27 Test Ea | |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | IEC 60068-2-6 Test Fc; 2 - 13.2Hz /1mm 13.2 - 100Hz / 0.7g with load 100% x Ie | |
| | Environmental conditions (damp heat ) acc. to IEC/EN 60068-2-30 | °C/RH | 12 + 12 cycle with 55°C / 90-96% and 25% / 95-100% | |
| | Environmental conditions (dry heat ) acc. to IEC/EN 60068-2-2 Test B | °C/RH | 16 hours 55°C / 2 hours 70°C with damp heat 55% | |
| | Ambient temperature | °C | -25… + 60 | |
| | Storage temperature | °C | -25 … +70 | |
| Installation | Terminal | | Failsafe cage or ringlug terminal | Failsafe cage or ringlug terminal |
| | Stranded Cross-section of conductors (top / bottom) | $mm^2$ | 1 … 50 | |
| | Flexible Cross-section of conductors (top/bottom) | $mm^2$ | 1 … 70 | |
| | Tightening torque | Nm | 3,5 | |
| | | in-lbs. | 31 | |
| | Screwdriver | | POZI 2 | |
| | Mounting | | any | |
| | Mounting position | | any | |
| | Supply | | any | any (taking into account the polarization) |
| Dimensions and weight | Pole dimensions (H x L x W) | mm | 95 x 26.5 x 82.5 | |
| | Pole weight | g | 240 | |
| Combination with aux. elements | Auxiliary contact | | yes | |
| | Combined auxiliary- / signal contact | | yes | |
| | Shunt trip | | yes | |
| | Undervoltage release | | yes | |
| | Shunt open release | | yes | |
| | Motor Operating Device | | yes | |

# Command and signalling
# S800PV series 1500 switch disconnector




S802PV-M




S803PV-M




S804PV-M

## S800PV-M

Function: DC main switch for photovoltaic applications. Safe disconnection of photovoltaic arrays.

**Applications: Photovoltaic systems.**
**Standard: IEC 60947-3**
**Icw=1.5 kA**

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 211233 | S802PV-M32 | 2CCP812001R1329 | | 0.43 | 1 |
| | 63 | 215026 | S802PV-M63 | 2CCD842001R1590 | | 0.65 | 1 |
| | 125 | 211240 | S802PV-M125 | 2CCP812001R1849 | | 0.43 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 3 | 32 | 211257 | S803PV-M32 | 2CCP813001R1329 | | 0.65 | 1 |
| | 63 | 215033 | S803PV-M63 | 2CCD843001R1590 | | 0.65 | 1 |
| | 125 | 211264 | S803PV-M125 | 2CCP813001R1849 | | 0.65 | 1 |

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 4 | 32 | 211271 | S804PV-M32 | 2CCP814001R1329 | | 0.86 | 1 |
| | 63 | 215040 | S804PV-M63 | 2CCD844001R1590 | | 0.86 | 1 |
| | 125 | 211288 | S804PV-M125 | 2CCP814001R1849 | | 0.86 | 1 |

**Maybe you are also interested in:**
S800PV p. 2/187




S800PV

## S800PV-M-H

Function: this polarized disconnector is designed to meet the requirements for photovoltaic systems.

Only 54 mm wide, voltage up to 1000 V d.c. and a rated current up to 100 A.

| Number of poles | Rated current | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 32 | 420703 | S802PV-M32-H | 2CCP247204R0001 | | 0.43 | 1 |
| | 63 | 420710 | S802PV-M63-H | 2CCP247205R0001 | | 0.43 | 1 |
| | 100 | 420796 | S802PV-M100-H | 2CCP247212R0001 | | 0.43 | 1 |

# Command and signalling
## E 210 switches



E 210

### On-off switches

| General | |
|---|---|
| Overall depth | 68 mm |
| Width | 0.5 or 1 module (9 or 18 mm) |
| Colour | grey, RAL 7035 |
| Climatic resistance to | IEC 60068-2-2 (dry heat) |
| | IEC 60068-2-30 (humid heat) |
| | IEC 60068-2-1 (low temperatures) |
| Ambient temperature | - 25°C to + 55°C |
| Storage temperature | - 40°C to + 70°C |
| Connection cross-section (Cu) | from 1 x 1 mm2 to 1 x 6 mm2 or 2 x 2.5 mm2 solid; |
| | from 1x 0.75 mm2 to 2 x 1.5 mm2 flexible |
| | with end ferrule or pin cable lug |
| Tightening torque | 1,2-1,5 Nm |
| Contacts | Double interrupting |
| **On-off switches (E211; E211X)** | |
| Short-circuit withstand capacity Inc | 3 kA; at 400 V cos j = 0.8 (with fusing <_ 35 A / NH00) |
| Rated current In | 16 A, 25 A, 32 A |
| Rated voltage Un | |
| in accordance with EN | 250 VAC, 400 VAC |
| in accordance UL 508 | 240 VAC |
| Rated impulse withstand voltage Uimp | 6 kV |
| Lowest operating voltage | 24 VAC; 25 mA |
| Isolating features | to EN60669-2-4; IEC/EN 60947-3 |
| Utilization category | AC-22 A, DC-22 A acc. IEC/EN 60947-3 |
| LED voltage ranges | On-off switches E211X 115-250 VAC (Tolerance +/- 10%) |
| Frequency | 50/60 Hz |
| Sealable | in the On and Off positions |
| Standards | DIN EN 60669-1 *VDE 0632-1 |
| | DIN EN 60669-2-4 *VDE 0632-2-4 |
| | UL 508 |
| Approvals | VDE; UL; GOST; CCC |

| Utilization category for E211 On-off switches (according to standard IEC 60947-3) | | | | |
|---|---|---|---|---|
| Type | In | Utilization category | | |
| | | DC-22 A | | AC-22 A |
| E211-16-... | 16 A | 50 VDC / 16 A | 200 VDC / 1 A | 400 VAC / 16 A |
| E211-25-... | 25 A | 50 VDC / 25 A | 200 VDC / 2 A | 400 VDC / 25 A |
| E211-32-...- | 32 A | 50 VDC / 32 A | 200 VDC / 3 A | 400 VDC / 32 A |

## Change over, Group and control switches, pushbuttons and indicator lights

| | |
|---|---|
| **Change over, Group and Control switches (E213; E214; E218)** | |
| Rated current In | 16 A, 25 A |
| Rated voltage Un | |
| in accordance with EN | 250 VAC, 400 VAC |
| in accordance UL 508 | 240 VAC |
| Lowest operating voltage | 24 VAC; 25 mA |
| Frequency | 50/60 Hz |
| Switches sealable | in the On and Off positions |
| Standards | DIN EN 60669-1 *VDE 0632-1 |
| | UL 508 |
| Approvals | VDE; UL; GOST; CCC |
| **Pushbuttons without and with LED (E215; E217)** | |
| Rated current In | 16 A |
| Rated voltage Un | |
| in accordance with EN | 250 VAC |
| in accordance UL 508 | 240 VAC |
| Lowest operating voltage | 24 VAC; 25 mA |
| LED voltage ranges | 12-48 VAC / DC; 115-250 VAC; 60-220 VDC (Tolerance +/- 10%) |
| Frequency | 50/60 Hz |
| Standards | DIN EN 60669-1 *VDE 0632-1 |
| | UL 508 |
| Approvals | VDE; UL; GOST; CCC |
| **Indicator lights (E219)** | |
| LED voltage ranges | 12-48 VAC / DC; 115-250 VAC; 60-220 VDC (Tolerance +/- 10%) |
| Frequency | 50/60 Hz |
| Insulation voltage | 250 V |
| Rated impulse withstand voltage Uimp | 4 kV |
| Dissipated power | 0.47-1 W |
| Standards | DIN EN 62094-1 |
| | UL 508 |
| Approvals | VDE; UL; GOST; *1 |
| **Indicator lights with 2 LEDs** | |
| LED voltage ranges | 115-250 VAC; 12-48 VAC (tolerance +/- 10%) |
| Frequency | 50/60 Hz |
| Insulation voltage | 250 V |
| Rated impulse withstand voltage Uimp | 4 kV |
| Dissipated power | 0.8 W |
| Standards | DIN EN 62094-1 |
| Approvals | VDE; GOST; *1 |
| **Indicator lights with 3 LEDs** | |
| LED voltage ranges | 415/250 VAC (tolerance +/- 10%) |
| Frequency | 50/60 Hz |
| Insulation voltage | 250 V |
| Rated impulse withstand voltage Uimp | 4 kV |
| Dissipated power | 1.2 W |
| Standards | DIN EN 62094-1 |
| Approvals | VDE; GOST; *1 |

*1 = CCC approval not required

# Command and signalling
## E 210 switches




E 211-16-10




E211-16-20

These devices are specifically made for commanding loads and signalling electrical conditions in any low-voltage switchboard. They are available in half module or 1 module, depending on the contact-layout. The devices with indicator lights are equipped with a LED, which grants an optimal illumination with very low consumption.

The functions of these devices are particularly switching, pushing and signalling electrical conditions in any installations (low-voltage area)

General new features
- Space-saving through 9 mm modules
- All terminals equipped with Pozidrive 1 screws
- Safe connection due to cage-clamp
- LED with bright colours and available in three different voltage ranges
- Different lens and button colours
- Compliance to international standards

### E 211-... ON-OFF switches

For example, such devices are used to switch indicators or other electrical components (like fan's, air-conditions, e.g.). The new On-Off switches distinguish themselves through simple handling, easy mounting and optimal functionality.

**Rated current = 16 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1 NO | 250 | 0.32 | 9 | 938575 | E211-16-10 | 2CCA703000R0001 | | 0.035 | 10 |
| 2 NO | 250/400 | 0.82 | 9 | 938582 | E211-16-20 | 2CCA703005R0001 | | 0.045 | 10 |
| 3 NO | 250/400 | 1.14 | 18 | 938599 | E211-16-30 | 2CCA703010R0001 | | 0.080 | 10 |
| 4 NO | 250/400 | 1.64 | 18 | 938605 | E211-16-40 | 2CCA703015R0001 | | 0.090 | 10 |

**Rated current = 25 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1 NO | 250 | 0.75 | 9 | 938612 | E211-25-10 | 2CCA703001R0001 | | 0.035 | 10 |
| 2 NO | 250/400 | 1.95 | 9 | 938629 | E211-25-20 | 2CCA703006R0001 | | 0.045 | 10 |
| 3 NO | 250/400 | 2.70 | 18 | 938636 | E211-25-30 | 2CCA703011R0001 | | 0.080 | 10 |
| 4 NO | 250/400 | 3.90 | 18 | 938643 | E211-25-40 | 2CCA703016R0001 | | 0.090 | 10 |

**Rated current = 32 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1 NO | 250 | 1.12 | 9 | 938650 | E211-32-10 | 2CCA703002R0001 | | 0.035 | 10 |
| 2 NO | 250/400 | 2.73 | 9 | 938667 | E211-32-20 | 2CCA703007R0001 | | 0.045 | 10 |
| 3 NO | 250/400 | 3.85 | 18 | 938674 | E211-32-30 | 2CCA703012R0001 | | 0.080 | 10 |
| 4 NO | 250/400 | 5.46 | 18 | 938681 | E211-32-40 | 2CCA703017R0001 | | 0.090 | 10 |

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DC switching capacity of E210:
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E211X-16-10

## E 211X-... On-Off switches with yellow LED for contact indication

LED voltage 115-250 V AC

**Rated current = 16 A**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 NO | 250 | 0.50 | yellow | 9 | 938872 | E211X-16-10 | 2CCA703100R0001 | | 0.040 | 10 |
| 2 NO | 250/400 | 1.00 | yellow | 18 | 938889 | E211X-16-20 | 2CCA703110R0001 | | 0.050 | 10 |
| 3 NO | 250/400 | 1.50 | yellow | 18 | 938896 | E211X-16-30 | 2CCA703115R0001 | | 0.060 | 10 |




E211X-16-20

**Rated current = 25 A**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 NO | 250 | 1.15 | yellow | 9 | 938902 | E211X-25-10 | 2CCA703101R0001 | | 0.040 | 10 |
| 2 NO | 250/400 | 2.30 | yellow | 18 | 938919 | E211X-25-20 | 2CCA703111R0001 | | 0.050 | 10 |
| 3 NO | 250/400 | 3.45 | yellow | 18 | 938926 | E211X-25-30 | 2CCA703116R0001 | | 0.060 | 10 |






E213-16-001

## E 213-... Change over switches

The new change-over switches distinguish themselves through simple handling, easy mounting and optimal functionality. Example applications include opening and closing of electrically operated flaps.

**Rated current = 16 A**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 CO | 250 | 0.32 | - | 9 | 938698 | E213-16-001 | 2CCA703040R0001 | | 0.041 | 10 |
| 2 CO | 250 | 0.82 | - | 18 | 938704 | E213-16-002 | 2CCA703045R0001 | | 0.082 | 10 |




E 213-16-002

**Rated current = 25 A**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 CO | 250 | 0.40 | - | 9 | 938711 | E213-25-001 | 2CCA703041R0001 | | 0.041 | 10 |
| 2 CO | 250 | 0.88 | - | 18 | 938728 | E213-25-002 | 2CCA703046R0001 | | 0.082 | 10 |




E214-16-101




E214-16-202




E 218-16-11




E 218-16-22

## E 214-... Group switches (I-0-II, manual-OFF-automatic)

The new Group switches can be used to control the main installation of an emergency supply. Such devices distinguish themselves through simple handling, easy mounting and optimal functionality.

**Rated current = 16 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1 CO | 250 | 0.32 | 9 | 938735 | E214-16-101 | 2CCA703025R0001 | | 0.041 | 10 |
| 2 CO | 250 | 0.82 | 18 | 938742 | E214-16-202 | 2CCA703030R0001 | | 0.082 | 10 |

**Rated current = 25 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1 CO | 250 | 0.40 | 9 | 938759 | E214-25-101 | 2CCA703026R0001 | | 0.041 | 10 |
| 2 CO | 250 | 0.88 | 18 | 938766 | E214-25-202 | 2CCA703031R0001 | | 0.082 | 10 |

## E 218-... Control switches

These devices can be used in distribution board for any control function. The new control switches distinguish themselves through simple handling, easy mounting and optimal functionality.

**Rated current = 16 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1NO+1NC | 250 | 0.50 | 9 | 938773 | E218-16-11 | 2CCA703050R0001 | | 0.041 | 10 |
| 2NO+2NC | 250 | 1.00 | 18 | 938780 | E218-16-22 | 2CCA703060R0001 | | 0.082 | 10 |
| 3NO+1NC | 250 | 1.50 | 18 | 938797 | E218-16-31 | 2CCA703065R0001 | | 0.082 | 10 |

**Rated current = 25 A**

| Contacts | Rated voltage | Power loss | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | V AC | W | mm | EAN | Type code | Order code | | kg | pc. |
| 1NO+1NC | 250 | 0.75 | 9 | 938803 | E218-25-11 | 2CCA703051R0001 | | 0.041 | 10 |

**Where to find more:**
DC switching capacity of E210:
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# Command and signalling
## E 210 pushbuttons



E 215



E 217

### E 215-... Pushbuttons (6 different button colours)

Pushbuttons without and with LED

The new products are available in 9 mm widths (= 0.5 modules).

The devices can be used in distribution boards and are all distinguished by their simple handling, ease of mounting and optimal functionality. The pushbuttons are used for remote control in all kinds of electrical installation (e.g. public, industrial). The range offers three different voltages.

(Ranges: 12-48 V AC/DC; 115-250 V AC and 60-220 V DC).

**Rated current = 16 A**

| Contacts | Rated voltage V AC | Power loss W | Button colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 250 | 0.50 | grey | 9 | 938810 | E215-16-11B | 2CCA703150R0001 | | 0.046 | 10 |
| 1NO+1NC | 250 | 0.50 | red | 9 | 938827 | E215-16-11C | 2CCA703151R0001 | | 0.046 | 10 |
| 1NO+1NC | 250 | 0.50 | green | 9 | 938834 | E215-16-11D | 2CCA703152R0001 | | 0.046 | 10 |
| 1NO+1NC | 250 | 0.50 | yellow | 9 | 938841 | E215-16-11E | 2CCA703153R0001 | | 0.046 | 10 |
| 1NO+1NC | 250 | 0.50 | black | 9 | 938858 | E215-16-11F | 2CCA703154R0001 | | 0.046 | 10 |
| 1NO+1NC | 250 | 0.50 | blue | 9 | 938865 | E215-16-11G | 2CCA703155R0001 | | 0.046 | 10 |

### E 217-... Luminous Pushbuttons (5 different LED colours)

**LED Voltage range = 115-250 V AC**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 NO | 250 | 1.10 | white | 9 | 938988 | E217-16-10B | 2CCA703160R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.10 | red | 9 | 938995 | E217-16-10C | 2CCA703161R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.10 | green | 9 | 939008 | E217-16-10D | 2CCA703162R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.10 | yellow | 9 | 939015 | E217-16-10E | 2CCA703163R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.10 | blue | 9 | 939022 | E217-16-10G | 2CCA703164R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.10 | white | 9 | 939084 | E217-16-01B | 2CCA703250R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.10 | red | 9 | 939091 | E217-16-01C | 2CCA703251R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.10 | green | 9 | 939107 | E217-16-01D | 2CCA703252R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.10 | yellow | 9 | 939114 | E217-16-01E | 2CCA703253R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.10 | blue | 9 | 939121 | E217-16-01G | 2CCA703254R0001 | | 0.050 | 10 |

# Command and signalling
## E 210 pushbuttons



E 217

### E 217-... Luminous Pushbuttons (5 different LED colours)

**LED Voltage range = 12-48 V AC/DC**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 NO | 250 | 0.72 | white | 9 | 938933 | E217-16-10B48 | 2CCA703170R0001 | | 0.050 | 10 |
| 1 NO | 250 | 0.72 | red | 9 | 938940 | E217-16-10C48 | 2CCA703171R0001 | | 0.050 | 10 |
| 1 NO | 250 | 0.72 | green | 9 | 938957 | E217-16-10D48 | 2CCA703172R0001 | | 0.050 | 10 |
| 1 NO | 250 | 0.72 | yellow | 9 | 938964 | E217-16-10E48 | 2CCA703173R0001 | | 0.050 | 10 |
| 1 NO | 250 | 0.72 | blue | 9 | 938971 | E217-16-10G48 | 2CCA703174R0001 | | 0.050 | 10 |
| 1 NC | 250 | 0.72 | white | 9 | 939039 | E217-16-01B48 | 2CCA703260R0001 | | 0.050 | 10 |
| 1 NC | 250 | 0.72 | red | 9 | 939046 | E217-16-01C48 | 2CCA703261R0001 | | 0.050 | 10 |
| 1 NC | 250 | 0.72 | green | 9 | 939053 | E217-16-01D48 | 2CCA703262R0001 | | 0.050 | 10 |
| 1 NC | 250 | 0.72 | yellow | 9 | 939060 | E217-16-01E48 | 2CCA703263R0001 | | 0.050 | 10 |
| 1 NC | 250 | 0.72 | blue | 9 | 939077 | E217-16-01G48 | 2CCA703264R0001 | | 0.050 | 10 |

**LED Voltage range = 60-220 V DC**

| Con-tacts | Rated voltage V AC | Power loss W | LED colour | Width mm | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 NO | 250 | 1.50 | white | 9 | 939138 | E217-16-10B220 | 2CCA703165R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.50 | red | 9 | 939145 | E217-16-10C220 | 2CCA703166R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.50 | green | 9 | 939152 | E217-16-10D220 | 2CCA703167R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.50 | yellow | 9 | 939169 | E217-16-10E220 | 2CCA703168R0001 | | 0.050 | 10 |
| 1 NO | 250 | 1.50 | blue | 9 | 939176 | E217-16-10G220 | 2CCA703169R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.50 | white | 9 | 939183 | E217-16-01B220 | 2CCA703255R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.50 | red | 9 | 939190 | E217-16-01C220 | 2CCA703256R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.50 | green | 9 | 939206 | E217-16-01D220 | 2CCA703257R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.50 | yellow | 9 | 939213 | E217-16-01E220 | 2CCA703258R0001 | | 0.050 | 10 |
| 1 NC | 250 | 1.50 | blue | 9 | 939220 | E217-16-01G220 | 2CCA703259R0001 | | 0.050 | 10 |



**Where to find more:**
DC switching capacity of E210:
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# Command and signalling
# E 210 indicator lights



E 219

## E 219-... Indicator Lights with LED (5 different colours)

Indicator Lights with LED

The new products are available in 9 mm width (= 0.5 modules) and can be used for indicating any operational condition such as signalling loss of a phase.

The range offers three different voltages.

(Ranges: 12-48 V AC/DC; 115-250 V AC and 110-220 V DC).

**Single indicator light - LED Voltage range = 115-250 V AC**

| Power loss | LED colour | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 0.47 | white | 9 | 939282 | E219-B | 2CCA703400R0001 | | 0.04 | 10 |
| 0.47 | red | 9 | 939299 | E219-C | 2CCA703401R0001 | | 0.04 | 10 |
| 0.47 | green | 9 | 939305 | E219-D | 2CCA703402R0001 | | 0.04 | 10 |
| 0.47 | yellow | 9 | 939312 | E219-E | 2CCA703403R0001 | | 0.04 | 10 |
| 0.47 | blue | 9 | 939329 | E219-G | 2CCA703404R0001 | | 0.04 | 10 |

**Single indicator light - LED Voltage range = 12-48 V AC/DC**

| Power loss | LED colour | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 0.40 | white | 9 | 939237 | E219-B48 | 2CCA703420R0001 | | 0.04 | 10 |
| 0.40 | red | 9 | 939244 | E219-C48 | 2CCA703421R0001 | | 0.04 | 10 |
| 0.40 | green | 9 | 939251 | E219-D48 | 2CCA703422R0001 | | 0.04 | 10 |
| 0.40 | yellow | 9 | 939268 | E219-E48 | 2CCA703423R0001 | | 0.04 | 10 |
| 0.40 | blue | 9 | 939275 | E219-G48 | 2CCA703424R0001 | | 0.04 | 10 |

**Single indicator light - LED Voltage range = 60-220 V DC**

| Power loss | LED colour | Width | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 1.00 | white | 9 | 939336 | E219-B220 | 2CCA703405R0001 | | 0.04 | 10 |
| 1.00 | red | 9 | 939343 | E219-C220 | 2CCA703406R0001 | | 0.04 | 10 |
| 1.00 | green | 9 | 939350 | E219-D220 | 2CCA703407R0001 | | 0.04 | 10 |
| 1.00 | yellow | 9 | 939367 | E219-E220 | 2CCA703408R0001 | | 0.04 | 10 |
| 1.00 | blue | 9 | 939374 | E219-G220 | 2CCA703409R0001 | | 0.04 | 10 |

# Command and signalling
## E 210 indicator lights




E 219-2CD




E 219-3CDE

**Double indicator light - LED Voltage range = 12-24 V AC**

| Power loss | LED colour | Width | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 0.8 | green, red | 9 | 413347 | E219-2CD48 | 2CCA703911R0001 | | 0.042 | 10 |

**Double indicator light - LED Voltage range = 115-230 V AC**

| Power loss | LED colour | Width | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 0.8 | green, red | 9 | 413330 | E219-2CD | 2CCA703910R0001 | | 0.042 | 10 |

**Triple indicator light - LED Voltage range = 415-230 V AC**

| Power loss | LED colour | Width | Bbn 7612271 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| W | | mm | EAN | Type code | Order code | | kg | pc. |
| 1.2 | red, red, red | 9 | 413309 | E219-3C | 2CCA703900R0001 | | 0.044 | 10 |
| 1.2 | green, green, green | 9 | 413316 | E219-3D | 2CCA703901R0001 | | 0.044 | 10 |
| 1.2 | red, yellow, green | 9 | 413323 | E219-3CDE | 2CCA703902R0001 | | 0.044 | 10 |



# Command and signalling
## E 210 accessories




E 210-DH




E 210-ASV9

### Accessories for E 210 device series

**Dummy housing for 9 mm wide units**
**The modular witht of 18 mm must be complied with to use the devices in the SMISSLINE socket system. The dummy housing is ready-made with two expanding connectors. Always snap on dummy housing on the left.**

| | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 404208 | E210-DH | 2CCA703480R0001 | | 0.18 | 10 |

**Padlock**

| | Bbn 7612270 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| to use for 9 and 18 mm wide units | 404215 | E210-ASV9 | 2CCA703648R0001 | | 0.01 | 10 |

**Where to find more:**
DC switching capacity of E210:
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# Command and signalling
## SL luminous indicators for panel installation




SL 4 LEDs




SL 12 LEDs

| Technical characteristics | | |
|---|---|---|
| **Electrical characteristics** | | |
| Supply | [V] | AC/DC 24, 48 ±20% |
| | | AC 115, 230 ±20% |
| | | DC 115 ±20% |
| Frequency | [Hz] | 0-1000 |
| Power consumption | [W] | 0.5 max per input |
| TEST input consumption | [W] | 4 max |
| **Other characteristics** | | |
| Operating temperature | [°C] | -20 +60 |
| Storage temperature | [°C] | -20 +70 |
| Relative humidity | | 30-95% |
| Overall dimensions | [mm] | 48 x 48 x 56 (SL-3 e SL-4) |
| | | 96 x 96 x 56 (SL...96) |
| | | 72 x 144 x 70 (SL...72-144) |
| Weight | [gr] | 100 (SL-3 e SL-4), |
| | | 300 (SL-12-115V/96) |
| | | 350 (SL-12-115V/72-144) |
| Protection degree | | IP40 |
| Label dimensions | [mm] | 30 x 9 |



### Luminous indicator

These luminous indicator devices provide an intuitive and readily visible front panel display of the state of an electrical line or load situated either remotely or inside the panel itself. The range of luminous indicator includes devices with 3, 4 or 12 LEDs with various supply voltage ratings, and fully-customisable plain labels.
The version with 115 V DC supply rating, is ideal for installation on medium voltage panels and for non-standard applications, and complete an extensive range of easy-to-install indicator devices.

**Indicator lamps 24 V AC/DC**

| Size mm | Number of LEDs | Characteristics of the LEDs | Label | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 48 | 3 | not included | neutral | 2659501 | SL-3-24V/48 | 2CSG211010R3001 | | 0.01 | 1 |
| 48 | 4 | not included | neutral | 2659600 | SL-4-24V/48 | 2CSG221010R3001 | | 0.01 | 1 |
| 48 | 3 | 🟥 | neutral | 2659709 | SL-3-L1-L2-L3-24V/48 | 2CSG241020R3001 | | 0.01 | 1 |
| 48 | 3 | 🟩🟥🟨 | in English | 2659808 | SL-3-A-C-S-24V/48 | 2CSG251030R3001 | | 0.01 | 1 |
| 48 | 4 | 🟩🟥🟨🟩 | in English | 2659907 | SL-4-A-C-S-E-24V/48 | 2CSG251040R3001 | | 0.01 | 1 |
| 96 | 12 | not included | alarm | 2660002 | SL-12-24V/96 | 2CSG274050R3001 | | 0.03 | 1 |
| 144 | 12 | not included | alarm | 2660408 | SL-12-24V/144 | 2CSG233050R3001 | | 0.35 | 1 |

**Indicator lamps 48 V AC/DC**

| Size mm | Number of LEDs | Characteristics of the LEDs | Label | Bbn 801254 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 48 | 3 | not included | neutral | 2660002 | SL-3-48V/48 | 2CSG311010R3001 | | 0.01 | 1 |
| 48 | 4 | not included | neutral | 2658603 | SL-4-48V/48 | 2CSG321010R3001 | | 0.01 | 1 |
| 48 | 3 | 🟥 | neutral | 2658702 | SL-3-L1-L2-L3-48V/48 | 2CSG341020R3001 | | 0.01 | 1 |
| 48 | 3 | 🟩🟥🟨 | in English | 2658801 | SL-3-A-C-S-48V/48 | 2CSG351030R3001 | | 0.01 | 1 |
| 48 | 4 | 🟩🟥🟨🟩 | in English | 2658900 | SL-4-A-C-S-E-48V/48 | 2CSG351040R3001 | | 0.01 | 1 |
| 96 | 12 | not included | alarm | 2660101 | SL-12-48V/96 | 2CSG374050R3001 | | 0.03 | 1 |
| 144 | 12 | not included | alarm | 2660507 | SL-12-48V/144 | 2CSG333050R3001 | | 0.35 | 1 |

# Command and signalling
## SL luminous indicators for panel installation



### Indicator lamps 115 V AC

| Size mm | Number of LEDs | Characteristics of the LEDs | Label | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 48 | 3 | not included | neutral | 2659006 | SL-3-115V/48 | 2CSG411010R3001 | | 0.01 | 1 |
| 48 | 4 | not included | neutral | 2659105 | SL-4-115V/48 | 2CSG421010R3001 | | 0.01 | 1 |
| 48 | 3 | ■■■ | in English | 2659303 | SL-3-A-C-S-115V/48 | 2CSG451030R3001 | | 0.01 | 1 |
| 48 | 4 | ■■■■ | in English | 2659402 | SL-4-A-C-S-E-115V/48 | 2CSG451040R3001 | | 0.01 | 1 |
| 96 | 12 | not included | alarm | 2660200 | SL-12-115V/96 | 2CSG474050R3001 | | 0.03 | 1 |
| 144 | 12 | not included | alarm | 2660606 | SL-12-115V/144 | 2CSG433050R3001 | | 0.35 | 1 |

### Indicator lamps 115 V DC

| Size mm | Number of LEDs | Characteristics of the LEDs | Label | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 48 | 3 | not included | neutral | 2659006 | SL-3-115V/48 DC | 2CSG273233R3001 | | 0.01 | 1 |
| 48 | 4 | not included | neutral | 2659105 | SL-4-115V/48 DC | 2CSG273313R3001 | | 0.01 | 1 |
| 48 | 3 | ■■■ | in English | 2659303 | SL-3-A-C-S-115V/48 DC | 2CSG273223R3001 | | 0.01 | 1 |
| 48 | 4 | ■■■■ | in English | 2659402 | SL-4-A-C-S-E-115V/48 DC | 2CSG273303R3001 | | 0.01 | 1 |
| 96 | 12 | not included | neutral | 2732136 | SL12-115V/96 DC | 2CSG273213R3001 | | 0.01 | 1 |
| 144 | 12 | not included | neutral | 2732938 | SL12-115V/72-144 DC | 2CSG273293R3001 | | 0.01 | 1 |

### Indicator lamps 230 V AC

| Size mm | Number of LEDs | Characteristics of the LEDs | Label | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 48 | 3 | not included | neutral | 2659501 | SL-3-230V/48 | 2CSG511010R3001 | | 0.01 | 1 |
| 48 | 4 | not included | neutral | 2659600 | SL-4-230V/48 | 2CSG521010R3001 | | 0.01 | 1 |
| 48 | 3 | ■ | neutral | 2659709 | SL-3-L1-L2-L3-230V/48 | 2CSG541020R3001 | | 0.01 | 1 |
| 48 | 3 | ■■■ | in English | 2659808 | SL-3-A-C-S-230V/48 | 2CSG551030R3001 | | 0.01 | 1 |
| 48 | 4 | ■■■■ | in English | 2659907 | SL-4-A-C-S-E-230V/48 | 2CSG551040R3001 | | 0.01 | 1 |
| 96 | 12 | not included | alarm | 2660309 | SL-12-230V/96 | 2CSG574050R3001 | | 0.03 | 1 |
| 144 | 12 | not included | alarm | 2660705 | SL-12-230V/144 | 2CSG533050R3001 | | 0.35 | 1 |

### Accessories for luminous indicators

| | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| ■ | 2660804 | red LED | 2CSG500060R3001 | | 0.05 | 5 pcs |
| ■ | 2660903 | green LED | 2CSG500070R3001 | | 0.05 | 5 pcs |
| ■ | 2661009 | yellow LED | 2CSG500080R3001 | | 0.05 | 5 pcs |
| ■ | 2661108 | blue LED | 2CSG500090R3001 | | 0.05 | 5 pcs |
| □ | 2661207 | white LED | 2CSG500100R3001 | | 0.05 | 5 pcs |

# Command and signalling
## ESB installation contactors




**ESB**

| Main Pole - Utilization Characteristics according to IEC | | | | | | |
|---|---|---|---|---|---|---|
| Contactor types: | AC operated | | ESB20/ EN20 | | | |
| | AC/DC operated | | | ESB24/ EN24 | ESB40/ EN40 | ESB63 |
| Rated operational voltage Ue max. | | V | 250 | 400 | | |
| Rated frequency limits | | Hz | 50/60 | DC or 50/60 Hz | | |
| Utilization category AC-1 / AC-7a | | | | | | |
| for air temperature close to contactor < 55 °C | | (NO) A | 20 | 24 | 40 | 63 |
| Max. rated operational current Ie AC-1 / AC-7a | | (NC) A | 20 | 24 | 30 | 30 |
| Rated operational power AC-1/ AC-7a | 230 V - 1 phase | (NO) kW | 4 | 5.5 | 9.2 | 14.5 |
| | 400 V - 3 phases | (NO) kW | - | 16 | 26 | 41 |
| | 230 V - 1 phase | (NC) kW | 4 | 5.3 | 8.8 | 6.9 |
| | 400 V - 3 phases | (NC) kW | - | 16 | 26 | 26 |
| Utilization category AC-3 / AC-7b | | | | | | |
| for air temperature close to contactor < 55 °C Max. rated operational current Ie AC-3/AC-7b | 230 V - 1 phase | A | 9 | 9 | 22 | 30 |
| | 400 V - 3 phases | A | - | 9 | 22 | 30 |
| Rated operational power AC-3/ AC-7b | 230 V - 1 phase | kW | 1.1 | 1.3 | 3.7 | 5 |
| | 400 V - 3 phases | kW | - | 4 | 11 | 15 |
| Rated making capacity AC-3/AC-7b | | | 10 x Ie / AC-3 | | | |
| Rated breaking capacity AC-3/AC-7b | | | 8 x Ie / AC-3 | | | |
| Short-circuit protection for contactors gG type fuse | | A | 20 | 35 | 63 | 80 |
| Rated short-time withstand current Icw at 40 °C ambient temp., in free air, from a cold state | 10 s | A | 72 | 72 | 176 | 240 |
| Heat dissipation per pole | Ie / AC-1/AC-7a | W | 1 | 3 | 4 | 6 |
| Max. electrical switching frequency | – for AC-1 / AC-7a | cycles/h | 300 | | | |
| | – for AC-3 / AC-7b | cycles/h | 600 | | | |
| Electrical durability | – for AC-1 / AC-7a | cycles | 150000 | 150000 | 150000 | 150000 |
| | – for AC-3 / AC-7b | cycles | 150000 | 500000 | 170000 | 240000 |
| Mechanical durability | – millions of operating cycles | | 1.000.000 | | | |



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# Command and signalling
## ESB installation contactors



| Magnet System Characteristics | | | | | | |
|---|---|---|---|---|---|---|
| Contactor types: | AC operated | | ESB20/ EN20 | | | |
| | AC/DC operated | | | ESB24/ EN24 | ESB40/ EN40 | ESB63 |
| Coil operating limits acc. to IEC 60947-4-1 | | | 0.85 ... 1.1 x Uc (at ϕ m 55 °C) | | | |
| Drop-out voltage in % of Uc | | | approx. 20 ... 75 % | approx. 20 ... 70 % | | |
| Frequency range | | Hz | 50/60 | 50/60 or DC | | |
| Coil consumption | Average pull-in value | VA / W | 8 / 5 | 4 / 4 | 5 / 5 | 65 / 65 |
| | Average holding value | VA / W | 3.2 / 1.2 | 4 / 4 | 5 / 5 | 4.2 / 4.2 |

| Connecting Characteristics | | | | | | |
|---|---|---|---|---|---|---|
| Contactor types: | AC operated | | ESB20/ EN20 | | | |
| | AC/DC operated | | | ESB24/ EN24 | ESB40/ EN40 | ESB63 |
| Connecting capacity (min. ... max.) | | | | | | |
| Main pole terminals | | | | | | |
| Rigid | | 1 x mm² | 1.5 ... 10 | | 1.5 ... 25 | |
| | | 2 x mm² | 1.5 ... 4 | | 1.5 ... 10 | |
| Degree of protection | | | | | | |
| acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529 | | | | | | |
| Protection against direct contact in acc. with EN 50274 | | | | | | |
| All terminals | | | IP20 | | | |

| EH04... Auxiliary Contact Block - Utilization Characteristics according to IEC | | | | | | | |
|---|---|---|---|---|---|---|---|
| Contactor types: | AC operated | | | ESB20 | | | |
| | AC/DC operated | | | | ESB24 | ESB40 | ESB63 |
| Rated operational voltage Ue max. | | | V | - | 500 | | |
| Conventional free air thermal current Ith | | | | | | | |
| θ < 40 °C | | | A | - | 6 | | |
| Rated frequency limits | | | Hz | - | 50/60 | | |
| Rated operational current Ie / AC-15 acc. to IEC 60947-5-1 | 240 V | 50/60 Hz | A | - | 4 | | |
| | 415 V | 50/60 Hz | A | - | 3 | | |
| | 500 V | 50/60 Hz | A | - | 2 | | |
| Making capacity | acc. to IEC 60947-5-1 | | | - | 11 x Ie AC-15 | | |
| Breaking capacity | acc. to IEC 60947-5-1 | | | - | 11 x Ie AC-15 | | |
| Short-circuit protection gI type fuse | | | A | - | 10 | | |
| Minimum switching capacity with failure rate acc. to IEC 60947-5-4 | | | V/mA | - | 17 / 5 | | |
| Heat dissipation per pole at 6 A | | | W | - | 0.1 | | |

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ESB 20

## Application

The ESB contactors are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.
ESB20 are AC coil operated.
The ESB 24, 40, 63 contactors are used for the control of loads up to 24, 40, 63 A.
Due to their DC solenoid actuator, the ESB 24 can be connected to AC or DC voltages.
This provides the following benefits:
Hum-free operating system, no vibration, silent in operation, low power consumption, integrated high overvoltage protection 5 kV. You can choose between a various N.O. and N.C. contacts combination.

### Main accessories für ESB 24, 40, 63

Auxiliary contact blocks EH04.



| ESB 20 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Main poles | Nb of modules | Control coil voltage | | Bbn 3471521 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
| | | 50 Hz | 60 Hz | EAN | Type code | Order code | | kg | pc. |
| 2 N.O.   | 1 | 12 V | 14 V | 1230141 | ESB 20-20 | GHE 321 1102 R1004 | | 0.14 | 10 |
| | | 24 V | 28 V | 0263218 | ESB 20-20 | GHE 321 1102 R0001 | | 0.14 | 10 |
| | | 110 V | 125...127 V | 1230042 | ESB 20-20 | GHE 321 1102 R0004 | | 0.14 | 10 |
| | | 230 V | 264 V | 0263263 | ESB 20-20 | GHE 321 1102 R0006 | | 0.14 | 10 |
| 2 N.C.   | 1 | 12 V | 14 V | 1232145 | ESB 20-02 | GHE 321 1202 R1004 | | 0.14 | 10 |
| | | 24 V | 28 V | 0263812 | ESB 20-02 | GHE 321 1202 R0001 | | 0.14 | 10 |
| | | 110 V | 125...127 V | 1232046 | ESB 20-02 | GHE 321 1202 R0004 | | 0.14 | 10 |
| | | 230 V | 264 V | 0263867 | ESB 20-02 | GHE 321 1202 R0006 | | 0.14 | 10 |
| 1 N.O. 1 N.C.   | 1 | 12 V | 14 V | 1231148 | ESB 20-11 | GHE 321 1302 R1004 | | 0.14 | 10 |
| | | 24 V | 28 V | 0263515 | ESB 20-11 | GHE 321 1302 R0001 | | 0.14 | 10 |
| | | 110 V | 125...127 V | 1231049 | ESB 20-11 | GHE 321 1302 R0004 | | 0.14 | 10 |
| | | 230 V | 264 V | 0263560 | ESB 20-11 | GHE 321 1302 R0006 | | 0.14 | 10 |

# Command and signalling
## ESB installation contactors




ESB 24

**ESB 24**

| Main poles | Nb of modules | Control coil voltage 40...450 Hz | Control coil voltage DC | Bbn 4013614 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 N.O. | 2 | 24 V | 24 V | 215193 | ESB 24-20 | GHE 3291402 R0001 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 146756 | ESB 24-20 | GHE 3291402 R0006 | | 0.28 | 5 |
| 4 N.O. | 2 | 12 V | 12 V | 084478 | ESB 24-40 | GHE 3291102 R1004 | | 0.28 | 5 |
| | | 24 V | 24 V | 084416 | ESB 24-40 | GHE 3291102 R0001 | | 0.28 | 5 |
| | | 110...120 V | 110...120 V | 084430 | ESB 24-40 | GHE 3291102 R0004 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 084454 | ESB 24-40 | GHE 3291102 R0006 | | 0.28 | 5 |
| 4 N.C. | 2 | 12 V | 12 V | 084560 | ESB 24-04 | GHE 3291202 R1004 | | 0.28 | 5 |
| | | 24 V | 24 V | 084515 | ESB 24-04 | GHE 3291202 R0001 | | 0.28 | 5 |
| | | 110...120 V | 110...120 V | 084539 | ESB 24-04 | GHE 3291202 R0004 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 084546 | ESB 24-04 | GHE 3291202 R0006 | | 0.28 | 5 |
| 2 N.O. 2 N.C. | 2 | 12 V | 12 V | 084638 | ESB 24-22 | GHE 3291302 R1004 | | 0.28 | 5 |
| | | 24 V | 24 V | 084584 | ESB 24-22 | GHE 3291302 R0001 | | 0.28 | 5 |
| | | 110...120 V | 110...120 V | 084607 | ESB 24-22 | GHE 3291302 R0004 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 084614 | ESB 24-22 | GHE 3291302 R0006 | | 0.28 | 5 |
| 3 N.O. 1 N.C. | 2 | 12 V | 12 V | 084720 | ESB 24-31 | GHE 3291602 R1004 | | 0.28 | 5 |
| | | 24 V | 24 V | 084676 | ESB 24-31 | GHE 3291602 R0001 | | 0.28 | 5 |
| | | 110...120 V | 110...120 V | 084690 | ESB 24-31 | GHE 3291602 R0004 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 084706 | ESB 24-31 | GHE 3291602 R0006 | | 0.28 | 5 |
| 1 N.O. 3 N.C. | 2 | 12 V | 12 V | 218255 | ESB 24-13 | GHE 3291702 R1004 | | 0.28 | 5 |
| | | 24 V | 24 V | 214783 | ESB 24-13 | GHE 3291702 R0001 | | 0.28 | 5 |
| | | 110...120 V | 110...120 V | 218224 | ESB 24-13 | GHE 3291702 R0004 | | 0.28 | 5 |
| | | 230...240 V | 230...240 V | 218224 | ESB 24-13 | GHE 3291702 R0006 | | 0.28 | 5 |

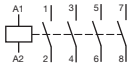
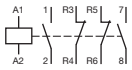
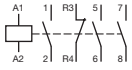
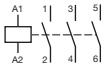


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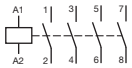
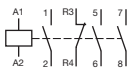
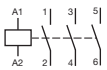
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## ESB 40

| Main poles | Nb mo-du-les | Control coil voltage 40...450 Hz | Control coil voltage DC | Bbn 4013614 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 N.O.  | 3 | 12 V | 12 V | 149245 | ESB 40-40 | GHE 3491102R1004 | | 0.40 | 3 |
| | | 24 V | 24 V | 084829 | ESB 40-40 | GHE 3491102R0001 | | 0.40 | 3 |
| | | 110...120 V | 110...120 V | 084843 | ESB 40-40 | GHE 3491102R0004 | | 0.40 | 3 |
| | | 230...240 V | 230...240 V | 084867 | ESB 40-40 | GHE 3491102R0006 | | 0.40 | 3 |
| 2 N.C.  | 3 | 24 V | 24 V | 379611 | ESB 40-22 | GHE 3491302R0001 | | 0.40 | 3 |
| | | 230 V | 230 V | 214332 | ESB 40-22 | GHE 3491302R0006 | | 0.40 | 3 |
| 1 N.C.  | 3 | 24 V | 24 V | 316890 | ESB 40-31 | GHE 3491602R0001 | | 0.40 | 3 |
| | | 230 V | 230 V | 214349 | ESB 40-31 | GHE 3491602R0006 | | 0.40 | 3 |
| 3 N.O.  | 3 | 24 V | 24 V | 316890 | ESB 40-30 | GHE 3491502R0001 | | 0.39 | 3 |
| | | 230 V | 230 V | 214349 | ESB 40-30 | GHE 3491502R0006 | | 0.39 | 3 |
| 2 N.O.  | 3 | 24 V | 24 V | 212345 | ESB 40-20 | GHE 3491402R0001 | | 0.38 | 3 |
| | | 230 V | 230 V | 085314 | ESB 40-20 | GHE 3491402R0006 | | 0.38 | 3 |

## ESB 63

| Main poles | Nb mo-du-les | Control coil voltage 40...450 Hz | Control coil voltage DC | Bbn 4013614 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 N.O.  | 3 | 12 V | 12 V | 218262 | ESB 63-40 | GHE 3691102R1004 | | 0.42 | 3 |
| | | 24 V | 24 V | 084935 | ESB 63-40 | GHE 3691102R0001 | | 0.42 | 3 |
| | | 110...120 V | 110...120 V | 084959 | ESB 63-40 | GHE 3691102R0004 | | 0.42 | 3 |
| | | 230...240 V | 230...240 V | 084973 | ESB 63-40 | GHE 3691102R0006 | | 0.42 | 3 |
| 1 N.C.  | 3 | 110 V | 110 V | | ESB 63-31 | GHE 3691602R0004 | | 0.42 | 3 |
| | | 230 V | 230 V | | ESB 63-31 | GHE 3691602R0006 | | 0.42 | 3 |
| 3 N.O.  | 3 | 230 V | 230 V | 085376 | ESB 63-30 | GHE 3691502R0006 | | 0.41 | 3 |
| | | 400 V | 400 V | 260964 | ESB 63-30 | GHE 3691502R0007 | | 0.41 | 3 |
| 2 N.O.  | 3 | 24 V | 24 V | 291999 | ESB 63-20 | GHE 3691402R0001 | | 0.40 | 3 |
| | | 230 V | 230 V | 085369 | ESB 63-20 | GHE 3691402R0006 | | 0.40 | 3 |
| 1 N.O. 1 N.C.  | 3 | 230 V | 230 V | 214622 | ESB 63-11 | GHE 3691802R0006 | | 0.40 | 3 |

# Command and signalling
## EN series contactors



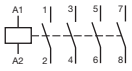
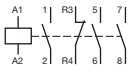
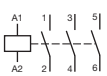
EN

### Application
The EN contactors are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

### Description
EN contactors have a built-in toggle switch to select between three function modes:
Off position, automatic run (normal contactor function), manual override with a return to Auto the next time the coil is energized.
This offers many advantages as:
You can make functionnal test before installation start-up. It can be used for maintenance operation, to change lamps and test it. It provides higher safety and drop out as you can switch the application manually.
The toggle switch is also used for household application like water heating where double tariff of kWh is used.

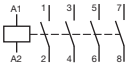
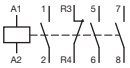
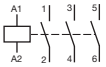
6

| Main poles | Nb of modules | Control coil voltage 50 Hz | Control coil voltage 60 Hz | Bbn 4013614 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 N.O.  | 1 | 24 V | 28 V | 239038 | EN 20-20 | GHE 322 1101 R0001 | | 0.14 | 10 |
| | | 230 V | 264 V | 265069 | EN 20-20 | GHE 322 1101 R0006 | | 0.14 | 10 |

| Main poles | Nb of modules | Control coil voltage 50 Hz | Control coil voltage 60 Hz | Bbn 4013614 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2 N.O.  | 3 | 230...240 V | 230...240 V | 129582 | EN 40-20 | GHE 342 1401 R0006 | | 0.40 | 3 |
| 4 N.O.  | 2 | 24 V | 24 V | 190469 | EN 24-40 | GHE 326 1101 R0001 | | 0.24 | 5 |
| | | 230...240 V | 230...240 V | 133688 | EN 24-40 | GHE 326 1101 R0006 | | 0.24 | 5 |
| 3 N.O. 1 N.C.  | 2 | 24 V | 24 V | 316906 | EN 24-31 | GHE 326 1601 R0001 | | 0.24 | 5 |
| | | 230...240 V | 230...240 V | 133695 | EN 24-31 | GHE 326 1601 R0006 | | 0.24 | 5 |
| 3 N.O.  | 2 | 230...240 V | 230...240 V | 134319 | EN 24-30 | GHE 326 1501 R0006 | | 0.23 | 5 |

**Where to find more:**
Worldwide marks and approvals
p.15/166

**Maybe you are also interested in:**
Accessories for contactors p.6/36

| Main poles | Nb of modules | Control coil voltage | | Bbn 4013614 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | 50 Hz | 60 Hz | EAN | Type code | Order code | | kg | pc. |
| 4 N.O.  | 3 | 24 V | 24 V | 262500 | EN 40-40 | GHE 342 1101 R0001 | | 0.41 | 3 |
| | | 110 V | 110 V | 261077 | EN 40-40 | GHE 342 1101 R0004 | | 0.41 | 3 |
| | | 230...240 V | 230...240 V | 133701 | EN 40-40 | GHE 342 1101 R0006 | | 0.41 | 3 |
| 3 N.O. 1 N.C.  | 3 | 24 V | 24 V | 337017 | EN 40-31 | GHE 342 1601 R0001 | | 0.41 | 3 |
| | | 230...240 V | 230...240 V | 337017 | EN 40-31 | GHE 342 1601 R0006 | | 0.41 | 3 |
| 3 N.O.  | 3 | 230...240 V | 230...240 V | 212338 | EN 40-30 | GHE 342 1501 R0006 | | 0.40 | 3 |

# Command and signalling
## ESB/EN installation contactors main accessories




EH 04






ESB-PLK




ESB-DIS

**Contact blocks**

| Contactor type | Contact blocks | | Bbn 4013614 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| ESB/EN 24, 40, 63 | 2 | – | 084768 | EH 04-20 | GHE 340 1321 R0001 | | 0.004 | 10 |
| | 1 | 1 | 084768 | EH 04-11 | GHE 340 1321 R0002 | | 0.004 | 10 |

**Sealing cover**

| Contactor type | Bbn 4013614 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| ESB/EN 24 | 084171 | ESB-PLK 24 | GHE 320 1903 R0001 | | 0.002 | 10 |
| ESB/EN 40, 63 | 085222 | ESB-PLK 40/63 | GHE 340 1903 R0002 | | 0.002 | 10 |

**Distance piece**

| Contactor type | Bbn 4013614 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| ESB/EN 24, 40,63 | 085215 | ESB-DIS | GHE 340 1902 R0001 | | 0.002 | 10 |



E290

## E290 Latching relays

| | | | |
|---|---|---|---|
| **General** | | | |
| Overall depth | | 68 mm | |
| Overall width | | 1 module (18 mm) | |
| Colour | | grey, RAL 7035 | |
| Climate resistance in accordance with | | IEC 60068-2-2 (dry heat) | |
| | | IEC 60068-2-30 (humid heat) | |
| | | IEC 60068-2-1 (low temperatures) | |
| Ambient temperature | | -25 °C to +55 °C | |
| Storage temperature | | -40 °C to +70 °C | |
| Contact system | | Double interruption | |
| Tightening torque | | 1.2 - 1.5 Nm | |
| Weight | | 0.122 kg | |
| Standards | | EN 60669-1; EN 60669-2-2 | |
| Approval | | VDE; EAC | |
| **Power circuit** | | | |
| Rated current In | E290-16-.../... | 16 A | ---- |
| | E290-32-.../... | ---- | 32 A |
| Rated voltage Un | | 250 VAC | 250 VAC |
| Frequency | | 50 Hz | 50 Hz |
| Short circuit withstand capacity Inc | | 3 kA | 3 kA |
| Back-up fuses (gL) | | max. 16 A | max. 32 A |
| Latching relay contact configurations for 16 A and 32 A | | 1NO; 2NO; 1NO + 1NC | |
| Additional Power contacts 16A (attachable) (not for 32 A version) | | 1CO; 2NO; 1NO + 1NC | |
| Max. DC current per contact with 24 VDC | | 5 A | 8 A |
| Min. switching load | | 24 V; 10 mA | |
| Bounce time | | < 3 ms | |
| Power loss in W per contact | | 0.32 W | 1.2 W |
| Rated impulse withstand voltage Uimp | | 4 kV | |
| **Max. lamp load** | | | |
| Glow lamps (20 W - 200 W) | | 3000 W | 4000 W |
| Fluorescent lamps, uncorrected power factor (cos. 0.5) | | 1800 W | 2200 W |
| Fluorescent lamps, corrected power factor (cos. 0.9) | serial | 3000 W | 4000 W |
| | parallel | 2500 W | 3200 W |
| | single | 1800 W | 2200 W |
| | double | 2500 W | 3200 W |
| (see also lamp load table) | | | |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact



E290

## E290 Latching Relays

| | |
|---|---|
| **Lifetime (switching cycles)** | |
| Electrical (AC1 rated current load) | 150,000 |
| Mechanical | 250,000 |
| **Connector cross-sections** | |
| Connecting terminals | solid from 1 x 1 mm2 to 1 x 10 mm2 or 2 x 2.5 $mm^2$<br>flexible from 1 x 0.75 mm2 to 1 x 6 mm2 (Cu)<br>with end ferrule or pin cable lug |
| **Control circuit** | |
| Rated control voltages Un | AC: 8 V; 12 V; 24 V; 48 V; 115 V; 230 V |
| | DC: – ; – ; 12 V; 24 V; 60 V; 110 V |
| AC/DC ratio 1) | 1: 0.5 (not available for 8 VAC and 12 VAC coils) |
| Operation limits | +/- 10% = 0.9 - 1.1 x Un |
| Minimum command duration | 50 ms |
| Max. switching operations | 15 x per min. at In 16 A; 8 x per min. at In 32 A |
| Switching noise | 60 dB (A) (distance 1 m) |
| Max. number of illuminated buttons (0.6 mA) | (see table on page 3/6) |
| Max. glow lamp current parallel to the 230 V control buttons | 5 mA |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

## Switching components for E290

| E292-16... Contact Module (attachable only to 16 A In version) | |
|---|---|
| Rated current In per E292 contact | 16 A |
| Rated voltage Un | 250 VAC |
| Frequency | 50 Hz |
| Max. no. attachable 2) (additional main contacts) | 1 unit (attachable on the right side of the main module) |
| Contact configurations | 1CO; 2NO; 1NO+1NC |
| Max. DC current per contact with 24 VDC | 8 A |
| Min. switching load | 24 V;10 mA |
| **E299-11 Auxiliary Contacts** | |
| Max. no. attachable 2) (signalling or control contacts) | 1 unit (attachable on the right side of the main module) |
| Number of contacts | 1 NO + 1 NC |
| Max. current per contact with AC | 5.0 A |
| Max. current per contact with 24 VDC | 5.0 A |



## Control components for E290

| E293X Central On-Off Control Module (same control voltage potential) | |
|---|---|
| Max. no. attachable 2) | 1 unit (attachable on the left side of the main module) |
| Rated current In max. | 1 A |
| Rated voltage Un | 250 VAC |
| **E294 Central On-Off Control Module (different control voltage potential)** | |
| Max. no. attachable 2) | 1 unit (attachable on the left side of the main module) |
| Rated current In max. | 1 A |
| Rated voltage Un | 250 VAC |
| **E295-PS Permanent Signal Module** | |
| Max. no. attachable 2) | 1 unit (attachable on the left side of the main module) |
| Rated current In max. | 1 A |
| Rated voltage Un | 250 VAC |
| **E295-GM Group Module** | |
| Use of group switching modules | 1 unit per defined group |
| Rated current In max. | 1 A |
| Rated voltage Un | 250 VAC |
| **E296-CP Compensator** | |
| Compensation when using illuminated buttons | Wiring parallel to the main module |
| Compensation | 2.2 µF |
| Rated voltage Un | 250 VAC |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact



E290

## E297 Installation Relays

| | | |
|---|---|---|
| **General** | | |
| Overall depth | | 68 mm |
| Overall width | | 1 module (18 mm) |
| Colour | | grey, RAL 7035 |
| Climate resistance in accordance with | | IEC 60068-2-2 (dry heat) |
| | | IEC 60068-2-30 (humid heat) |
| | | IEC 60068-2-1 (low temperatures) |
| Ambient temperature | | - 25 °C to + 55 °C |
| Storage temperature | | - 40 °C to + 70 °C |
| Tightening torque | | 1.2 - 1.5 Nm |
| Weight | | 0.122 kg |
| Standards | | EN 60669-1; EN 60669-2-2 |
| Approval | | VDE; EAC |
| **Power circuit** | | |
| Rated current In | | 16 A |
| Rated voltage Un | | 250 VAC |
| Frequency | | 50-60 Hz |
| Short circuit withstand capacity Inc | | 3 kA |
| Back-up fuses (gL) | | max. 16 A |
| Installation relay contact configurations | | 1NO; 2NO; 1NO+1NC |
| Additional Power contacts 16A (attachable) | | 1CO; 2NO; 1NO+1NC |
| Max. DC current per contact with 24 VDC | | 8 A |
| Min. switching load | | 24 V; 10 mA |
| Bounce time | | < 3 ms |
| Power loss in W per contact | | 0.50 W |
| Rated Impulse withstand voltage Uimp | | 4 kV |
| **Max. lamp load** | | |
| Glow lamps (20 W-200 W) | | 3000 W |
| Fluorescent lamps, uncorrected power factor (cos. 0.5) | | 1800 W |
| Fluorescent lamps, corrected power factor (cos. 0.9) | serial | 3000 W |
| | parallel | 2500 W |
| | single | 1800 W |
| | double | 2500 W |
| (see also lamp load table) | | |
| **Lifetime (switching cycles)** | | |
| Electrical (AC1 rated current load) | | 150,000 |
| Mechanical | | 250,000 |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

## E297 Installation Relays

| | | | |
|---|---|---|---|
| **Application categories** | | | |
| Switching capacity in accordance with | AC-1 (based on EN 60947) | 16 A | |
| | AC-5b (based on EN 60947) | 5 A | |
| | AC-7a (based on EN 61095) | 16 A | |
| | AC-7c (based on EN 61095) | 5 A | |
| **Connector cross-sections** | | | |
| Main connecting terminals | | solid from 1 x 1 mm2 to 1 x 10 mm2 or 2 x 2.5 mm2 | |
| | | flexible from 1 x 0.75 mm2 up to 1 x 6 mm2 (Cu) | |
| | | with end ferrule or pin cable lug | |
| **Control circuit** | | | |
| Coil rated voltages Un AC/DC | | 8 VAC; 12 VAC; 24 VAC/24 VDC; 48 VAC/48 VDC; | |
| | | 115 VAC/110 VDC; 230 VAC | |
| AC/DC ratio 3) | | 1 : 1 | |
| Operation limits | | +/- 10 % = 0.9 - 1.1 x Un | |
| Switching noise | | 60 dB (A) (distance 1 m) | |
| Max. switching operations | | 15 x per min. at In 16 A | |
| **Coil power loss** | | | |
| | | AC | DC |
| Pick up | | < 2.8 VA | < 2.0 W |
| Holding | | < 2.6 VA | < 1.8 W |

## Switching components for E297

| | |
|---|---|
| **E298 Contact Module** | |
| Max. no. attachable 2) (additional main contacts) | 1 unit (attachable on the right side of the main module) |
| Rated current In per E298 contact | 16 A |
| Rated voltage Un | 250 VAC |
| Frequency | 50 Hz |
| Number of contacts | 1CO; 2NO; 1NO+1NC |
| Max. DC current per contact with 24 VDC | 5 A |
| Min. switching load | 24 V; 10 mA |
| **E299-11 Auxiliary Contacts** | |
| Max. no. attachable 2) (signalling or control contacts) | 1 unit (attachable on the right side of the main module) |
| Number of contacts | 1 NO+1 NC |
| Max. current per contact with AC | 5.0 A |
| Max. current per contact with 24 VDC | 5.0 A |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

2) See overview of chapter 4 on 4/7

# Command and signalling
## E290 Latching relays



E290

### Latching Relay

This 18 mm wide DIN rail mounted device is designed for direct installation in main distribution or sub-distribution systems (mounted on 35 mm DIN mounting rails). The devices are activated by means of control pulses and guarantee energy-optimized lighting control. As a rule, installations with latching relays are used where the lighting control system can be operated from at least three points in different locations. Those latching relays are designed for a rated current of 16 A or 32 A.

Standard number of contacts:
1 NO contact, 2 NO contacts or 1 NO contact + 1 NC contact

The number of switching contacts can be increased by a maximum of two main contacts using a snap-on main module (E292-..-..). As a result, up to four lighting sets can be switched by a single device. A signalling and/or indicating facility can be created using the additional snap-on auxiliary contact module (E299-11).
The various standard AC/DC coil voltages complete the comprehensive and interesting product range. The additional devices can be snapped onto the latching relay on the left or right side.



**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO | 0.32 | 18 | 8VAC | 939558 | E290-16-10/8 | 2TAZ312000R2061 | | 0.114 | 10 |
| | 0.32 | 18 | 12VAC | 939565 | E290-16-10/12 | 2TAZ312000R2051 | | 0.114 | 10 |
| | 0.32 | 18 | 24VAC/12VDC | 939572 | E290-16-10/24 | 2TAZ312000R2041 | | 0.114 | 10 |
| | 0.32 | 18 | 48VAC/24VDC | 939589 | E290-16-10/48 | 2TAZ312000R2031 | | 0.114 | 10 |
| | 0.32 | 18 | 115VAC/60VDC | 939596 | E290-16-10/115 | 2TAZ312000R2021 | | 0.114 | 10 |
| | 0.32 | 18 | 230VAC/110VDC | 939602 | E290-16-10/230 | 2TAZ312000R2011 | | 0.114 | 10 |

**Rated current = 32 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO | 1.20 | 18 | 8VAC | 939619 | E290-32-10/8 | 2TAZ322000R2061 | | 0.114 | 10 |
| | 1.20 | 18 | 12VAC | 939626 | E290-32-10/12 | 2TAZ322000R2051 | | 0.114 | 10 |
| | 1.20 | 18 | 24VAC/12VDC | 939633 | E290-32-10/24 | 2TAZ322000R2041 | | 0.114 | 10 |
| | 1.20 | 18 | 48VAC/24VDC | 939640 | E290-32-10/48 | 2TAZ322000R2031 | | 0.114 | 10 |
| | 1.20 | 18 | 115VAC/60VDC | 939657 | E290-32-10/115 | 2TAZ322000R2021 | | 0.114 | 10 |
| | 1.20 | 18 | 230VAC/110VDC | 939664 | E290-32-10/230 | 2TAZ322000R2011 | | 0.114 | 10 |

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 0.64 | 18 | 8VAC | 939671 | E290-16-20/8 | 2TAZ312000R2062 | | 0.122 | 10 |
| | 0.64 | 18 | 12VAC | 939688 | E290-16-20/12 | 2TAZ312000R2052 | | 0.122 | 10 |
| | 0.64 | 18 | 24VAC/12VDC | 939695 | E290-16-20/24 | 2TAZ312000R2042 | | 0.122 | 10 |
| | 0.64 | 18 | 48VAC/24VDC | 939701 | E290-16-20/48 | 2TAZ312000R2032 | | 0.122 | 10 |
| | 0.64 | 18 | 115VAC/60VDC | 939718 | E290-16-20/115 | 2TAZ312000R2022 | | 0.122 | 10 |
| | 0.64 | 18 | 230VAC/110VDC | 939725 | E290-16-20/230 | 2TAZ312000R2012 | | 0.122 | 10 |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

**Rated current = 32 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 2.40 | 18 | 8VAC | 939732 | E290-32-20/8 | 2TAZ322000R2062 | | 0.122 | 10 |
| | 2.40 | 18 | 12VAC | 939749 | E290-32-20/12 | 2TAZ322000R2052 | | 0.122 | 10 |
| | 2.40 | 18 | 24VAC/12VDC | 939756 | E290-32-20/24 | 2TAZ322000R2042 | | 0.122 | 10 |
| | 2.40 | 18 | 48VAC/24VDC | 939763 | E290-32-20/48 | 2TAZ322000R2032 | | 0.122 | 10 |
|  | 2.40 | 18 | 115VAC/60VDC | 939770 | E290-32-20/115 | 2TAZ322000R2022 | | 0.122 | 10 |
| | 2.40 | 18 | 230VAC/110VDC | 939787 | E290-32-20/230 | 2TAZ322000R2012 | | 0.122 | 10 |

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 0.50 | 18 | 8VAC | 939794 | E290-16-11/8 | 2TAZ312000R2063 | | 0.122 | 10 |
| | 0.50 | 18 | 12VAC | 939800 | E290-16-11/12 | 2TAZ312000R2053 | | 0.122 | 10 |
| | 0.50 | 18 | 24VAC/12VDC | 939817 | E290-16-11/24 | 2TAZ312000R2043 | | 0.122 | 10 |
| | 0.50 | 18 | 48VAC/24VDC | 939824 | E290-16-11/48 | 2TAZ312000R2033 | | 0.122 | 10 |
|  | 0.50 | 18 | 115VAC/60VDC | 939831 | E290-16-11/115 | 2TAZ312000R2023 | | 0.122 | 10 |
| | 0.50 | 18 | 230VAC/110VDC | 939848 | E290-16-11/230 | 2TAZ312000R2013 | | 0.122 | 10 |

**Rated current = 32 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 1.20 | 18 | 8VAC | 939855 | E290-32-11/8 | 2TAZ322000R2063 | | 0.122 | 10 |
| | 1.20 | 18 | 12VAC | 939862 | E290-32-11/12 | 2TAZ322000R2053 | | 0.122 | 10 |
| | 1.20 | 18 | 24VAC/12VDC | 939879 | E290-32-11/24 | 2TAZ322000R2043 | | 0.122 | 10 |
| | 1.20 | 18 | 48VAC/24VDC | 939886 | E290-32-11/48 | 2TAZ322000R2033 | | 0.122 | 10 |
|  | 1.20 | 18 | 115VAC/60VDC | 939893 | E290-32-11/115 | 2TAZ322000R2023 | | 0.122 | 10 |
| | 1.20 | 18 | 230VAC/110VDC | 939909 | E290-32-11/230 | 2TAZ322000R2013 | | 0.122 | 10 |

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

# Command and signalling
## E290 Latching relays



E291S

### Sequential Latching Relay

The sequential latching relay is an 18 mm wide device which has two NO contacts. The preset switching sequence for the main contacts enables the switching on and off, of different lighting sets to be „programmed“. The E291S has an easily visible switch position display on the front.

Standard number of contacts:
2 NO contacts



E292



**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 0.64 | 18 | 8VAC | 939916 | E291S-16-20/8 | 2TAZ313000R2062 | | 0.110 | 10 |
| | 0.64 | 18 | 12VAC | 939923 | E291S-16-20/12 | 2TAZ313000R2052 | | 0.110 | 10 |
| | 0.64 | 18 | 24VAC/12VDC | 939930 | E291S-16-20/24 | 2TAZ313000R2042 | | 0.110 | 10 |
| | 0.64 | 18 | 230VAC/110VDC | 939947 | E291S-16-20/230 | 2TAZ313000R2012 | | 0.110 | 10 |



E293/X

### Accessories for E290 Latching Relays

Accessories and additional devices for combinations with Latching Relays

### Main Contact Module

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 0.64 | 9 | | 939480 | E292-16-20 | 2CCA704300R0001 | | 0.045 | 10 |
| 1NO+1NC | 0.32 | 9 | | 939503 | E292-16-11 | 2CCA704301R0001 | | 0.045 | 10 |
| 1CO | 0.32 | 9 | | 939527 | E292-16-001 | 2CCA704302R0001 | | 0.045 | 10 |



E294

**Central On-Off Control Module**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 9 | same control voltage | 939381 | E293/X | 2TAZ312004R1003 | | 0.041 | 10 |

**Central On-Off Control Module (with different control voltages)**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | 24VAC | 939411 | E294/24 | 2TAZ312001R2043 | | 0.110 | 5 |
| | | 18 | 230VAC | 939442 | E294/230 | 2TAZ312001R2013 | | 0.110 | 5 |



E295

**Permanent Signal Module**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | | 939459 | E295-PS | 2TAZ312005R1003 | | 0.041 | 10 |

**Group Module**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | | 939466 | E295-GM | 2TAZ310002R1000 | | 0.059 | 10 |

**Compensator**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | | 939473 | E296-CP | 2TAZ310003R1000 | | 0.055 | 10 |



E299

**Auxiliary Contact for Latching and Installation relays**

**Rated current = 5 A**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 0.10 | 9 | | 939985 | E299-11 | 2CCA704340R0001 | | 0.045 | 10 |

**Intermediate piece (for heating dissipation - bag contains 5 items)**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | | 100989 | ZLS725 | 2CCS500900R0181 | | 0.100 | 1 bag |
| | | 9 | | 104703 | ZLS726 | 2CCS400900R0091 | | 0.070 | 1 bag |

# Command and signalling
# E297 Installation relay



E297

## E297 Installation Relays

The E297 installation relay is an electromechanical switching device controlled by means of a continuous pulse. The coils have a low level of switching noise, are optimized for low power loss and therefore ensure safe and fault-free use in various applications. Either AC or DC control voltage can be applied. The installation relay is designed for a rated current of 16 A.

Standard number of contacts:
1 NO contact, 2 NO contacts or 1 NO contact + 1 NC contact

In addition, the number of main contacts can be increased to four contact lines using the snap-on E298 Main contact module so that three different groups of loads can be switched and controlled safely.
The various AC/DC coil voltages complete the comprehensive and interesting product range. The additional devices can be snapped onto the installation relay on the right side.



**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO | 0.50 | 18 | 8VAC | 940004 | E297-16-10/8 | 2TAZ311000R2061 | | 0.113 | 10 |
| | 0.50 | 18 | 12VAC | 940011 | E297-16-10/12 | 2TAZ311000R2051 | | 0.113 | 10 |
| | 0.50 | 18 | 24VAC/24VDC | 940028 | E297-16-10/24 | 2TAZ311000R2041 | | 0.113 | 10 |
| | 0.50 | 18 | 48VAC/48VDC | 940035 | E297-16-10/48 | 2TAZ311000R2031 | | 0.113 | 10 |
| | 0.50 | 18 | 115VAC/110VDC | 940042 | E297-16-10/115 | 2TAZ311000R2021 | | 0.113 | 10 |
| | 0.50 | 18 | 230VAC | 940059 | E297-16-10/230 | 2TAZ311000R2011 | | 0.113 | 10 |

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 0.50 | 18 | 8VAC | 940066 | E297-16-11/8 | 2TAZ311000R2063 | 940066 | 0.121 | 10 |
| | 0.50 | 18 | 12VAC | 940073 | E297-16-11/12 | 2TAZ311000R2053 | 940073 | 0.121 | 10 |
| | 0.50 | 18 | 24VAC/24VDC | 940080 | E297-16-11/24 | 2TAZ311000R2043 | 940080 | 0.121 | 10 |
| | 0.50 | 18 | 48VAC/48VDC | 940097 | E297-16-11/48 | 2TAZ311000R2033 | 940097 | 0.121 | 10 |
| | 0.50 | 18 | 115VAC/110VDC | 940103 | E297-16-11/115 | 2TAZ311000R2023 | 940103 | 0.121 | 10 |
| | 0.50 | 18 | 230VAC | 940110 | E297-16-11/230 | 2TAZ311000R2013 | 940110 | 0.121 | 10 |

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 1.00 | 18 | 8VAC | 940127 | E297-16-20/8 | 2TAZ311000R2062 | | 0.121 | 10 |
| | 1.00 | 18 | 12VAC | 940134 | E297-16-20/12 | 2TAZ311000R2052 | | 0.121 | 10 |
| | 1.00 | 18 | 24VAC/24VDC | 940141 | E297-16-20/24 | 2TAZ311000R2042 | | 0.121 | 10 |
| | 1.00 | 18 | 48VAC/48VDC | 940158 | E297-16-20/48 | 2TAZ311000R2032 | | 0.121 | 10 |
| | 1.00 | 18 | 115VAC/110VDC | 940165 | E297-16-20/115 | 2TAZ311000R2022 | | 0.121 | 10 |
| | 1.00 | 18 | 230VAC | 940172 | E297-16-20/230 | 2TAZ311000R2012 | | 0.121 | 10 |



E298



E299



## Accessories for E297 Installation Relays

Accessories and additional devices for combinations with Installation Relays

### Main Contact Module 16A

**Rated current = 16 A**

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 2NO | 0.64 | 9 | | 939961 | E298-16-20 | 2CCA704320R0001 | | 0.045 | 10 |
| 1NO+1NC | 0.32 | 9 | | 939954 | E298-16-11 | 2CCA704321R0001 | | 0.045 | 10 |
| 1CO | 0.32 | 9 | | 939978 | E298-16-001 | 2CCA704322R0001 | | 0.045 | 10 |

| Contact config. | Power loss [W] | Width [mm] | Coil control voltage [VAC/VDC] | Bbn 7612270 EAN | Order details Type code | Order code | Price 1 piece | Weight kg. | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|

**Auxiliary Contact for Latching and Installation relays**

**Rated current = 5 A**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1NO+1NC | 0.10 | 9 | | 939985 | E299-11 | 2CCA704340R0001 | | 0.045 | 10 |

**Intermediate piece (for heating dissipation - bag contains 5 items)**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 18 | | 100989 | ZLS725 | 2CCS500900R0181 | | 0.100 | 1 bag |
| | | 9 | | 104703 | ZLS726 | 2CCS400900R0091 | | 0.070 | 1 bag |

**Where to find more:**
Technical details for E290:
Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals
p.15/166

# Command and signalling
## FLR latching relays




FLR

| Technical features | | FLR1 | FLR5 |
|---|---|---|---|
| Contact type | | 1NO | 2NO |
| Number of sequences | [No.] | 2 | 4 |
| Rated voltage | [V] | 12 / 230 AC | |
| Rated load | | 10 A / 250 V AC | |
| Max. Peak current | [A] | 15 | |
| Max. switching power | [VA] | 2500 | |
| Max. switching voltage | [V] | 250 AC | |
| Incandescent lamp load | [W] | 805 | |
| Fluorescent lamp load | [W] | 345 | |
| Frequency | [Hz] | 50-60 | |
| Type of operation | | sequential - mechanical | |
| Protection degree | | IP20 | |
| Max. number of electrical operations | [No.] | 100000 | |
| Max. number of mechanical operations | [No.] | 300000 | |
| Insulation resistance | [MW] | 100 (500 V DC) | |
| Dielectric strength (contacts) | [V] | 2000 AC | |
| Dielectric strength (coil) | [V] | 3500 AC | |
| Power dissipation | [VA] | 4.5 | |
| Operating temperature | [°C] | -25...+55 | |
| Max. Cable section at terminals | [mm²] | 1...2.5 | |
| Terminals | | screw | |
| Tightening torque | [Nm] | 0.5 | |
| Installation type | | wall/flush mounting | |
| Dimensions (LxWxH) | [mm] | 45 x 22 x 45 | |
| Standards | | EN 60669-1 ; EN 60669-2-1 | |

| Characteristics of the contact | | | | | |
|---|---|---|---|---|---|
| Type | No. of pulses | Sequences | | | |
| | | 1 | 2 | 3 | 4 |
| FLR1-12 | 2 | | | | |
| FLR1-230 | 2 | | | | |
| FLR5-12 | 2 | | | | |
| FLR5-230 | 2 | | | | |

### Flush mounting latching relays

Speed and ease of assembly, along with their compact size, make the FLR flush mounting latching relays suitable for installation inside flush mount or junction boxes. They are ideal for implementing multipoint command of lighting systems in residential and commercial installations, so as to simplify and reduce the cost of wiring.

| Contacts | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1 | 063650 | FLR1-12 | 2CSM206365R0241 | | 0.06 | 20 |
| 1 | 063759 | FLR1-230 | 2CSM206375R0241 | | 0.06 | 20 |
| 2 | 063858 | FLR5-12 | 2CSM206385R0241 | | 0.06 | 20 |
| 2 | 063957 | FLR5-230 | 2CSM206395R0241 | | 0.06 | 20 |

# Command and signalling
## E 260 latching relays



E 260

6

| Technical features | |
|---|---|
| | **E 260/E 260 C** |
| Rated load at 250 V AC | 8 A |
| Incandescent lamp load | 1000 W |
| Fluorescent lamp load in twin-lamp circuit | 1000 W |
| Fluorescent lamp load shunt compensated | 350 W ① |
| Fluorescent lamp load inductive or capacitive | 500 W |
| Electronic ballast | Ion m 70 A/10 ms ② |
| Inductive load, cosϕ = 0.6/230 V ~ | 5 A |
| Contact rating at DC | 100 W |
| Minimum contact rating | 4 V AC/10 mA |
| Contact gap/contact material | 0.5 mm/Ag Sn02 |
| Service life mechanical switchover at 103/h | > $10^7$ |
| Service life at rated load cosϕ = 1 and 103/h | > $10^5$ |
| Service life with filament lamps at 103/h | 800 W > $10^5$,<br>1000 W > 0.8x$10^5$ |
| Service life at rated load cosϕ = 0.6 and 103/h | > $10^4$ |
| Max. switching rate | $10^3$/h |
| Bounce time | 3 ms |
| Connection capacity | 2 x 1.5 $mm^2$ with connector sleeve |
| Tightening torque | 0.5 … 0.8 Nm |
| ON duration at rated voltage | 100 % |
| Coil voltage range | 0.9 to 1.1 Un |
| Minimum command time/interval between commands | 50/1000 ms |
| Ambient temperature | -20 °C / -4 °F to 50 °C / 122 °F |
| Control current when controlled locally | 230 V AC 115 mA, after 10s 8 mA ± 20 % |
| Control current when controlled centrally | 230 V AC 8 mA, after 10s 3 mA ± 20 % |
| Max. parallel capacity of individual control wire at 230 V ~ | 0.7 µF (ca. 2000 m) |
| Max. parallel capacity of central control wire at 230 V ~ | 0.2 µF (ca. 700 m) |
| Max. glow lamp current – parallel to 230 V control buttons | 10 mA |
| Max. induced voltage at 230 V control inputs | 0.2 Un |

Latching relays for lamp installations on request.
① E 260 C can not be used with fluorescent lamp load shunt compensated.
② In the case of electronic control gear, take into account a 40-fold inrush current.

**Where to find more:**
Technical details for E260:
Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166



E 260

## E 260 electronic latching relays

The electronic version of latching relays guarantees maximum reliability, life, and noiseless operation. The E 260 C version also allows centralized reset function (ON/OFF).

**Latching relays with control electronics**
**Coil voltage UC = 24 V AC/DC**

| Contacts | Power loss W ① | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 NO | 2.4 (3.0) | 57592 8 | E 261-24 | 2CDE441000R0301 | | 0.085 | 1 |
| 1 NO+1 NC | 2.4 (3.5) | 57595 9 | E 266-24 | 2CDE444000R0301 | | 0.096 | 1 |
| 2 NO | 2.4 (3.5) | 57593 5 | E 262-24 | 2CDE442000R0301 | | 0.096 | 1 |

**Coil voltage UC = 230 V AC**

| Contacts | Power loss W ① | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 NO | 1.5 (2.0) | 57596 6 | E 261-230 | 2CDE141000R0301 | | 0.085 | 1 |
| 1 NO+1 NC | 1.7 (3.6) | 57598 0 | E 266-230 | 2CDE144000R0301 | | 0.096 | 1 |
| 2 NO | 1.7 (3.6) | 57597 3 | E 262-230 | 2CDE142000R0301 | | 0.096 | 1 |

## Latching relays with control electronics for central ON/OFF switch

The central commands have always priority and reliably switch on/off any given number of devices connected in parallel, irrespective of their previous switching position. Local control inputs are blocked when a central command is received. Same potential at central / local control input.

**Coil voltage UC = 24 V AC/DC**

| Contacts | Power loss W ① | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 NO | 2.4 (3.0) | 57599 7 | E 261 C-24 | 2CDE441000R0311 | | 0.085 | 1 |
| 1 NO+1 NC | 2.4 (3.5) | 57601 7 | E 266 C-24 | 2CDE444000R0311 | | 0.096 | 1 |
| 2 NO | 2.4 (3.5) | 57600 0 | E 262 C-24 | 2CDE442000R0311 | | 0.096 | 1 |

**Coil voltage UC = 230 V AC**

| Contacts | Power loss W ① | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 NO | 1.5 (2.0) | 57602 4 | E 261 C-230 | 2CDE141000R0311 | | 0.085 | 1 |
| 1 NO+1 NC | 1.7 (3.0) | 57604 8 | E 266 C-230 | 2CDE144000R0311 | | 0.096 | 1 |
| 2 NO | 1.7 (3.0) | 57603 1 | E 262 C-230 | 2CDE142000R0311 | | 0.096 | 1 |



**Where to find more:**
Technical details for E260:
Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

# Command and signalling
## STD50 dimmers




STD 50




STD-EP



| Technical features | |
|---|---|
| Rated voltage | 230 V ~ 50 Hz |
| Ambient temperature | 0 °C to + 35 °C |
| Interference suppression | CE |

### STD50 dimmers for the control of lamps and ballast

**Dimmer for brightness control of filament lamps , 230 V tungsten halogen lamps, lv halogen lamps with conventional transformers (phase control)**

| Description/ application | Power loss W | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| | 5 ① | 02790 6 | STD 50-3 | GH V021 1370 R0074 | | 0.155 | 1 |

**Dimmer for brightness control of filament lamps , 230 V tungsten halogen lamps, lv halogen lamps with ABB electronic transformers (reverse phase)**

| Description/ application | Power loss W | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| | 4 ① | 03300 8 | STD 50-4 | GH V021 1370 R0075 | | 0.105 | 1 |

① power loss = 1% of connected load (4 or 5 W max)

**Electronic potentiometer for electronic control gear with control input 0/1 - 10 V DC, control current 50 mA DC Rated current (terminal 3 and 4) 4 A cosϕ = 0.9; switching capacity 700 VA**

| Description/ application | Power loss W | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| | 5 ② | 27050 2 | STD-EP | GH V021 1370 R0076 | | 0.073 | 1 |

**Memory touch controller for electronic control gear Rated voltage/switching output 4 A (~ 10 electronic control gear units) cosϕ = 0.9; 3 A cosϕ = 0.5, switching capacity 700 VA**

| Description/ application | Power loss W | Bbn 4016779 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| for electronic control gear with control input 1 – 10 V DC control current 50 mA max. | 1 | 27070 0 | STD-MTS | GH V021 0881 R0004 | | 0.110 | 1 |

② power loss = 1% of connected load (7 W max)

**Where to find more:**
Connected load/ambient temperature diagrams for STD: Chapter 6 of Solutions for electrical distribution in buildings - technical details

# Command and signalling
## STD universal dimmer for phase control and reverse phase control


2CDC051101F0006

STD-500 U


2CDC051102F0006

STD-420 E


2CDC051167F0006


2CDC051104F0006


2CDC051103F0006

STD OCP, STD-OCD, STD-OCT

| Technical features | | |
|---|---|---|
| Rated voltage | | 230 V ~ ± 10%, 50/60 Hz |
| Rated current | STD U | 2.17 A |
| | STD E | 1.83 A |
| Max. connected load | U | 500 W/VA |
| | E | 420 W/VA |
| Power extension | | 1 U + max. 6 E/phase = > max. 3 kVA |
| Min. connected load | STD U | 60 W/VA |
| | STD E | 200 W/VA |
| Max. line length | | 100 m pushbutton cable, 2 m data line |
| Interference suppression | | CE |
| Ambient temperature | | 0 ... + 45 °C, higher temperatures reduce the power |

Electronic protection against short circuit, overload, excessive temperature, automatic load recognition, soft-OFF function optional, memory function, minimum brightness control, visual overload indication



### Universal dimmer for phase control and reverse phase control

Universal dimmer STD-500 U and the connected power extension unit STD-420 E are suitable for the brightness control of:

- glow lamps
- 230 V halogen glow lamps
- lv halogen glow lamps with conventional transformer (phase control)
- electronic transformers for lv halogen glow lamps (reverse phase control) e.g.: ABB ETR-70-230, 105-230, 150-230

The STD-500 U dimmer can be operated by one or more unlit pushbuttons (N- or L-controlled) or via a data line:

- EIB control element SB/S
- Powernet control element PSB

Power unit STD-420 E is used to boost the connected load and is controlled exclusively by the preset command of the STD-500 U dimmer. The parallel connection of the outputs of the universal high-performance dimmer and the pertaining power extensions (up to 6 units; connection with enclosed RJ 12 line cut to length) allow for a dimming power of 3,000 W/VA max at one load line.

Not suitable for dimming fluorescent lamps, transformers with current monitor and high-reactance transformers.

| Contacts | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| high-performance dimmer | 6 | 06692 8 | STD-500 U | GJB0 006 590 A0178 | | | 1 |
| extension | 6 | 06693 5 | STD-420 E | GJB0 006 590 A0179 | | | 1 |
| rotary operation element | – | 06698 0 | STD-OCD | GJB0 006 590 A0183 | | | 1 |
| button operation element | – | 06695 9 | STD-OCP | GJB0 006 590 A0181 | | | 1 |
| timer operation element | – | 07056 7 | STD-OCT | GJB0 006 590 A0185 | | | 1 |

Note: Load and control cables must not be laid in one cable

**Where to find more:**
Connected load/ambient temperature diagrams for STD: Chapter 6 of Solutions for electrical distribution in buildings - technical details

# Command and signalling
## STD universal dimmer for phase control and reverse phase control



### Plug-in operation elements:
pushbutton operation element (STD-OCP)
rotary operation element (STD-OCD)
timer (STD-OCT)

### Application
Remove dimmer cap and snap on operation element to provide for control of dimmer with central pushbutton or rotary operation. Local operation elements are still active.
Apart from the manual local control feature, the timer also allows for time-programmed operations.

Basic timer functions:
- year time switch with 48 time programs
- optional with/without decentralized pushbutton control
- special programs: adjustable background brightness, cycle, display and emergency light, holiday program
- running reserve: 5 hours


6586-500

### The new universal Master dimmer for LED retrofit Lamps. 6586-500

Product advantages
- Reliable and comfortable dimming of LED lamps
- Tuned to replacement lamps (retrofit LEDs)
- Brightness regulator downward compatible also suitable for conventional incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional inductive and electronic transformers.
- Touch-dimmer with local operation
- Adjustable minimum / maximum brightness Staircase light function with automatic switch-off function and pre-warning function according to DIN 18015-2
- Perfect function and comfortable operation
- Harmonious and flicker-free dimming process
- No humming or buzzing due to transistor technology
- Numerous practical special functions
- Extremely compact construction as MDRC device (1 MW)

| Tecnical features | |
|---|---|
| Max. connected load | 2 - 100 W/VA (Retrofit-LED-load). |
| Max. connected load | 10 - 200 W/VA (Non-LED-load). |
| Rated voltage | 230 V~, +10 % / -10 %, 50 Hz - 60 Hz |
| Ambient temperature | 0 °C bis 35 °C |
| Standards | IEC 60669-2-1, British Standard EN 60669-2-1 |

| | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 208519 | 6586-500 | 6590-0-0191 | | | 1 |

# Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL.
OVR SL is a very compact SPD, equipped with a patented thermal disconnector and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.
**www.abb.com/lowvoltage**

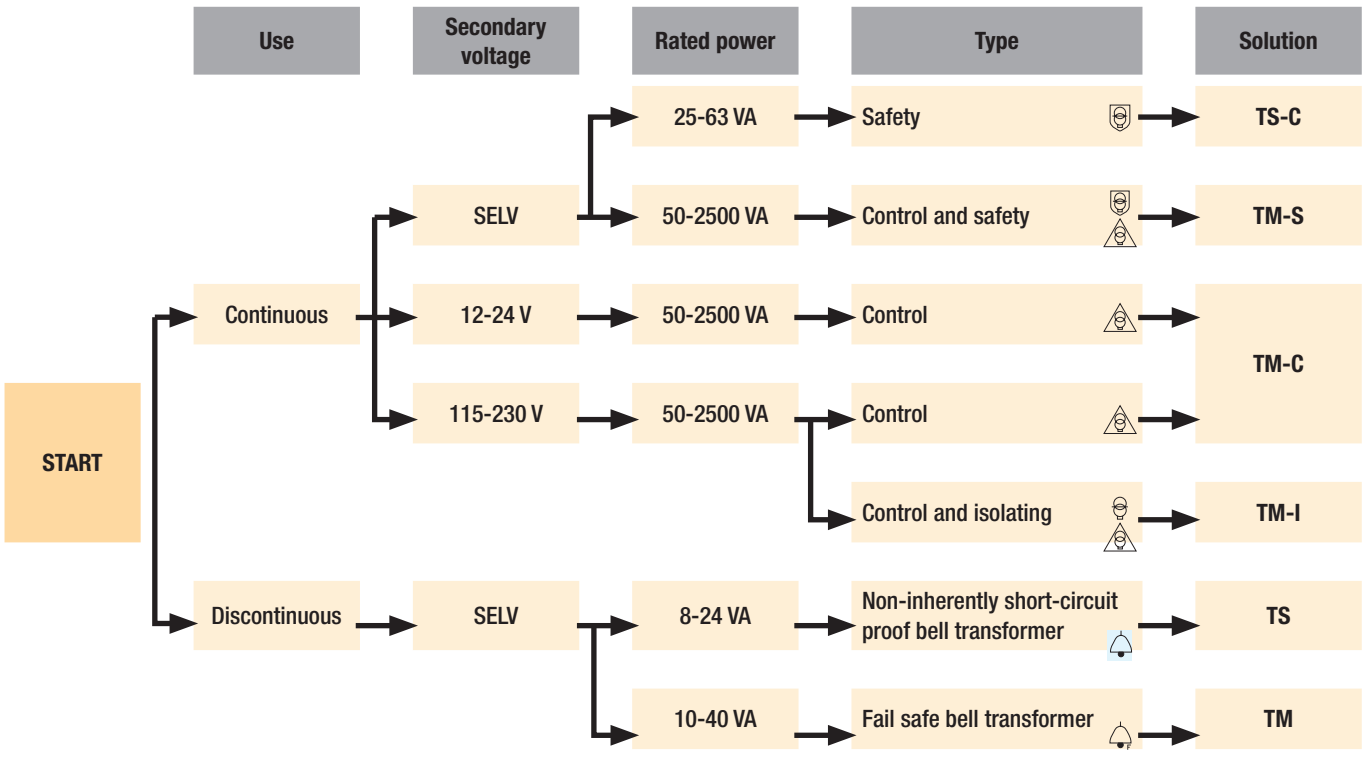




# Command and signalling
## Transformers selection table

| | | Bell transformers for discontinuous use | | |
|---|---|---|---|---|
| | |  |  | |
| Series | | TM | TS | |
| Reference standard | | IEC EN 61558-2-8 | | |
| Classification | | Fail safe | Non-inherently short-circuit proof | |
| Thermal protection integrated in secondary | | | ■ | |
| Rated power | | 10, 15, 30, 40 VA | 8, 16, 24 VA | |
| Operation | | Discontinuous | | |
| Primary circuit voltage ratings | | 230 V a.c. | 230 V a.c. | |
| Secondary circuit characteristics | Double insulation between primary and secondary windings | ■ | ■ | |
| | Full power on all outputs | | | |
| | SELV secondary (no-load output voltage <50 V a.c.) | ■ | ■ | |
| Dimensions | | 2 modules [10, 15 VA] | 2 modules [8, 16 VA] | |
| | | 3 modules [30, 40 VA] | 3 modules [24 VA] | |

① See page 6/58 for the choice of the protections.



| | Safety transformers for general use | Control transformers for general use | Control and Safety transformers for general use | Control and Isolating transformers for general use |
|---|---|---|---|---|
| |  |  |  |  |
| | TS-C | TM-C | TM-S | TM-I |
| | IEC EN 61558-2-6 | CEI EN 61558-2-2 | CEI EN 61558-2-2<br>CEI EN 61558-2-6 | CEI EN 61558-2-2<br>CEI EN 61558-2-4 |
| | Non-inherently short-circuit proof | Non-short-circuit proof control transformer a | Non-short-circuit-proof control and safety transformer a | Non-short-circuit-proof control and isolating transformer a |
| | ■ | | | |
| | 25, 40, 63 VA | 50 to 2500 VA | 50 to 2500 VA | 50 to 2500 VA |
| | Continuous | Continuous | Continuous | Continuous |
| | 230 V a.c. | 230/400 V a.c. | 230/400V a.c. | 230/400 V a.c. |
| | ■ | | ■ | ■ |
| | ■ | ■ | ■ | ■ |
| | ■ | | ■ | |
| | 4 modules [25 VA, 40 VA] | See overall dimensions 13/60 | See overall dimensions 13/60 | See overall dimensions 13/60 |
| | 5 modules [63 VA] | | | |



**Bell transformer** **TM, TS**

Transformers for supplying extra low voltage, suitable for loads that require a discontinuous supply, in particular door-bells and chimes. The primary and secondary circuits are perfectly isolated and separated.

Reference standard: IEC EN 61558-2-8



**Control transformer** **TM-C, TM-S*, TM-I***

Transformer for supplying control circuits, for example commands, signalling, interlocks, etc.

Reference standard: CEI EN 61558-2-2



**Safety transformer** **TS-C, TM-S***

Isolation transformer for supplying safety extra low voltage circuits (<50 V on no load). Accidental contact with the secondary winding phases can be withstood without any danger.

Reference standard: CEI EN 61558-2-6



**Isolating transformer** **TM-I***

Transformer in which the primary and secondary windings are electrically separated by a double or reinforced insulation, to protect the circuit supplied by the secondary against hazards due to accidental simultaneous contact with earth and live parts, or grounded parts that may become live in the event of an insulation fault.

Reference standard: CEI EN 61558-2-4

* TM-S and TM-I both comply to two standards.

# Command and signalling
## Control, isolating and safety transformers selection table

**Selection table of products and secondary protections**

**Primary protection: see in Chapter 6 of Solutions for electrical distribution in buildings - Technical details**



| | | TM-C Control | | | | TM-S Control/Safety | | | | TM-I Control/Isolating | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Power VA | Secondary voltage | 12 V | 24 V | 115 V | 230 V | 12 V | 24 V | 24 V | 48 V | 115 V | 230 V |
| 50 | Transformer | 2CSM207113R0801 | | 2CSM207213R0801 | | 2CSM236893R0801 | | 2CSM204653R0801 ② | | 2CSM204583R0801 | |
| | Fuse gauge ① | 4 A | 2 A | 0.4 A | 0.2 A | 4 A | 2 A | 2 A | 1 A | 0.4 A | 0.2 A |
| | | | | | | | | | | | |
| 100 | Transformer | 2CSM207103R0801 | | 2CSM236933R0801 | | 2CSM207163R0801 | | 2CSM204643R0801 | | 2CSM201123R0801 | |
| | Fuse gauge ① | 8 A | 4 A | 0.8 A | 0.4 A | 8 A | 4 A | 4 A | 2 A | 0.8 A | 0.4 A |
| | Breaker type | S202 C8 | S202 C4 | S202 C1 | S202 C0,5 | S202 C8 | S202 C4 | S202 C4 | S202 C2 | S202 C1 | S202 C0,5 |
| 160 | Transformer | 2CSM236853R0801 | | 2CSM207203R0801 | | 2CSM202073R0801 | | 2CSM204633R0801 | | 2CSM204533R0801 | |
| | Fuse gauge ① | 12 A | 6.3 A | 1.25 A | 0.63 A | 12 A | 6,3 A | 6.3 A | 3.15 A | 1.25 A | 0.63 A |
| | Breaker type | S202 C13 | S202 C8 | S202 C1.6 | S202 C- | S202 C13 | S202 C8 | S202 C8 | S202 C4 | S202 C1.6 | - |
| 200 | Transformer | 2CSM236823R0801 | | 2CSM236883R0801 | | 2CSM260043R0801 | | | | 2CSM204513R0801 | |
| | Fuse gauge ① | 16 A | 8 A | 1.6 A | 0.8 A | 16 A | 8 A | | | 1.6 A | 0.8 A |
| | Breaker type | S202 C16 | S202 C8 | S202 C2 | S202 C1 | S202 C16 | S202 C8 | | | S202 C2 | S202 C1 |
| 250 | Transformer | 2CSM207093R0801 | | 2CSM236923R0801 | | 2CSM260063R0801 | | 2CSM204673R0801 | | 2CSM204493R0801 | |
| | Fuse gauge ① | 20 A | 10 A | 2 A | 1 A | 20 A | 10 A | 10 A | 5 A | 2 A | 1 A |
| | Breaker type | S202 C20 | S202 C10 | S202 C2 | S202 C1 | S202 C20 | S202 C10 | S202 C10 | S202 C6 | S202 C2 | S202 C1 |
| 320 | Transformer | 2CSM236843R0801 | | 2CSM236923R0801 | | 2CSM260063R0801 | | 2CSM204673R0801 | | 2CSM204493R0801 | |
| | Fuse gauge ① | 25 A | 12 A | 2.5 A | 1.25 A | 25 A | 12 A | 12 A | 6.3 A | 2.5 A | 1.25 A |
| | Breaker type | S202 C25 | S202 C13 | S202 C3 | S202 C1,6 | S202 C25 | S202 C13 | S202 C13 | S202 C8 | S202 C3 | S202 C1,6 |
| 400 | Transformer | 2CSM289703R0801 | | 2CSM207193R0801 | | 2CSM260103R0801 | | 2CSM204613R0801 | | 2CSM201073R0801 | |
| | Fuse gauge ① | 32 A | 16 A | 3.15 A | 1.6 A | 32 A | 16 A | 16 A | 8 A | 3.15 A | 1.6 A |
| | Breaker type | S202 C32 | S202 C16 | S202 C4 | S202 C2 | S202 C32 | S202 C16 | S202 C16 | S202 C8 | S202 C4 | S202 C2 |
| 630 | Transformer | 2CSM236813R0801 | | 2CSM207183R0801 | | 2CSM260053R0801 | | 2CSM204603R0801 | | 2CSM204423R0801 | |
| | Fuse gauge ① | 50 A | 25 A | 5 A | 2.5 A | 50 A | 25 A | 25 A | 12 A | 5 A | 2.5 A |
| | Breaker type | S202 C50 | S202 C25 | S202 C6 | S202 C3 | S202 C50 | S202 C25 | S202 C25 | S202 C13 | S202 C6 | S202 C3 |
| 1000 | Transformer | 2CSM292873R0801 | | 2CSM236913R0801 | | 2CSM260093R0801 | | | | 2CSM204413R0801 | |
| | Fuse gauge ① | 80 A | 40 A | 8 A | 4 A | 80 A | 40 A | | | 8 A | 4 A |
| | Breaker type | S292 C80 | S202 C40 | S202 C8 | S202 C4 | S292 C80 | S202 C40 | | | S202 C8 | S202 C4 |
| 1600 | Transformer | 2CSM292863R0801 | | 2CSM201813R0801 | | 2CSM260083R0801 | | | | 2CSM204403R0801 | |
| | Fuse gauge ① | 125 A | 63 A | 16 A | 8 A | 125 A | 63 A | | | 16 A | 8 A |
| | Breaker type | S292 C125 | S202 C63 | S202 C16 | S202 C8 | S292 C125 | S202 C63 | | | S202 C16 | S202 C8 |
| 2000 | Transformer | 2CSM292853R0801 | | 2CSM236903R0801 | | 2CSM260073R0801 | | | | 2CSM204383R0801 | |
| | Fuse gauge ① | 160 A | 80 A | 16 A | 8 A | 160 A | 80 A | | | 16 A | 8 A |
| | Breaker type | - | S292 C80 | S202 C20 | S202 C10 | - | S292 C80 | | | S202 C20 | S202 C10 |
| 2500 | Transformer | 2CSM236943R0801 | | 2CSM207173R0801 | | 2CSM204663R0801 | | | | 2CSM204363R0801 | |
| | Fuse gauge ① | 200 A | 100 A | 20 A | 10 A | 200 A | 100 A | | | 20 A | 10 A |
| | Breaker type | - | S292 C100 | S202 C25 | S202 C13 | - | S292 C100 | | | S202 C25 | S202 C13 |

① FUSES
- Gauge ≤ 6.3 A use aM fuses with high breaking capacity and IEC601256-compliant
- Gauge > 6.3 A use gG fuses IEC60269-2 or IEC60269-3-compliant

② TM-S 50/24-48 P complies with IEC EN 61558-2-4 on the secondary circuit at 48 V and with IEC EN 61558-2-6 on the secondary circuit at 24 V

# Command and signalling
## TM-C, TM-S, TM-I control, isolating and safety transformers



TM

**Technical characteristics**

| | | TM-C | TM-S | TM-I |
|---|---|---|---|---|
| Rated primary voltage Un | [V] | 230/400 a.c. | 230/400 a.c. | 230/400 a.c. |
| Primary voltage adjustment outlets ±15 V | | No | Yes | Yes |
| Max ambient temperature ③ | [°C] | 40 | 40 | 40 |
| Rated secondary voltage Un | [V] | 12-24, 115-230 a.c. | 12-24, 24-48 a.c. b | 115-230 a.c. |
| Rated frequency | [Hz] | 50/60 | 50/60 | 50/60 |
| Isolation voltage between primary and secondary | [kV] | 3.5 | 4.8 | 4.8 |
| Rated powers | [VA] | 50-2500 | 50-2500 | 50-2500 |
| Primary cable section (Ø max) | [mm²] | 6 | 6 | 6 |
| Operating temperature | [°C] | ① | ① | ① |
| Approvals | | ENEC (Up to 1000 VA), UR, CSA | ENEC (Up to 1000 VA), UR, CSA | ENEC (Up to 1000 VA), UR, CSA |
| Standards | | CEI EN 61558-2-2 | CEI EN 61558-2-2<br>CEI EN 61558-2-6 | CEI EN 61558-2-2<br>CEI EN 61558-2-6 |

① See technical details
② TM-S 50/24-48 P complies to CEI EN 61558-2-4 on the 48 V secondary and to CEI EN 61558-2-6 on the 24 V secondary
③ Maximum temperature without any power draw. See technical details for power draw according to temperature.



**Where to find more:**
Technical details for modular transformers: Chapter 6 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
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# Command and signalling
## TM-C, TM-S, TM-I control, isolating and safety transformers



TM-I



TM-S



TM-C



TM-C

6

### TM-C control transformer
Transformer for supplying control circuits, for example commands, signalling, interlocks, etc.
Reference standard: CEI EN 61558-2-2.

### TM-S safety transformer
Isolation transformer for supplying safety extra low voltage circuits (<50 V on no load). Accidental contact with the secondary winding phases can be withstood without any danger.
Reference standard: CEI EN 61558-2-6

### TM-I isolating transformer
Transformer in which the primary and secondary windings are electrically separated by a double or reinforced insulation, to protect the circuit supplied by the secondary against hazards due to accidental simultaneous contact with earth and live parts, or grounded parts that may become live in the event of an insulation fault.
Reference standard: CEI EN 61558-2-4

Since TM-C, TM-S and TM-I transformers are not provided with built-in protection, they must therefore be protected according with these rules:
- Primary: line protection must reach or exceed the recommended value in Chapter 6 of Solutions for electrical distribution in buildings - Technical details. This device guarantees line protection and service continuity but doesn't protect the transformer.
- Secondary: transformer protection must be chosen according to tables in the previous pages. This device protect the transformer.

**TM-C single phase control transformers, primary 230-400 V**

| Rated power | Secondary voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| VA | V a.c. | EAN | Type code | Order code | | kg | pc. |
| 50 | 12-24 | 071136 | TM-C 50/12-24 | 2CSM207113R0801 | | 1.1 | 1 |
| 100 | 12-24 | 071037 | TM-C 100/12-24 | 2CSM207103R0801 | | 2 | 1 |
| 160 | 12-24 | 368533 | TM-C 160/12-24 | 2CSM236853R0801 | | 3 | 1 |
| 200 | 12-24 | 368236 | TM-C 200/12-24 | 2CSM236823R0801 | | 3.2 | 1 |
| 250 | 12-24 | 070931 | TM-C 250/12-24 | 2CSM207093R0801 | | 3.6 | 1 |
| 320 | 12-24 | 368434 | TM-C 320/12-24 | 2CSM236843R0801 | | 4.4 | 1 |
| 400 | 12-24 | 897033 | TM-C 400/12-24 | 2CSM289703R0801 | | 5.5 | 1 |
| 630 | 12-24 | 368137 | TM-C 630/12-24 | 2CSM236813R0801 | | 7.8 | 1 |
| 1000 | 12-24 | 928737 | TM-C 1000/12-24 | 2CSM292873R0801 | | 13.2 | 1 |
| 1600 | 12-24 | 928638 | TM-C 1600/12-24 | 2CSM292863R0801 | | 21.2 | 1 |
| 2000 | 12-24 | 928539 | TM-C 2000/12-24 | 2CSM292853R0801 | | 25.5 | 1 |
| 2500 | 12-24 | 369431 | TM-C 2500/12-24 | 2CSM236943R0801 | | 26.8 | 1 |
| 50 | 115-230 | 072133 | TM-C 50/115-230 | 2CSM207213R0801 | | 1.1 | 1 |
| 100 | 115-230 | 369332 | TM-C 100/115-230 | 2CSM236933R0801 | | 2 | 1 |
| 160 | 115-230 | 072034 | TM-C 160/115-230 | 2CSM207203R0801 | | 3 | 1 |
| 200 | 115-230 | 368830 | TM-C 200/115-230 | 2CSM236883R0801 | | 3.2 | 1 |
| 250 | 115-230 | 071532 | TM-C 250/115-230 | 2CSM207153R0801 | | 3.6 | 1 |
| 320 | 115-230 | 369233 | TM-C 320/115-230 | 2CSM236923R0801 | | 4.4 | 1 |
| 400 | 115-230 | 071938 | TM-C 400/115-230 | 2CSM207193R0801 | | 5.5 | 1 |
| 630 | 115-230 | 071839 | TM-C 630/115-230 | 2CSM207183R0801 | | 7.8 | 1 |
| 1000 | 115-230 | 369134 | TM-C 1000/115-230 | 2CSM236913R0801 | | 13.2 | 1 |
| 1600 | 115-230 | 018131 | TM-C 1600/115-230 | 2CSM201813R0801 | | 21.2 | 1 |
| 2000 | 115-230 | 369035 | TM-C 2000/115-230 | 2CSM236903R0801 | | 25.5 | 1 |
| 2500 | 115-230 | 071730 | TM-C 2500/115-230 | 2CSM207173R0801 | | 26.8 | 1 |

**Where to find more:**
Technical details for modular transformers: Chapter 6 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/168

**Maybe you are also interested in:**
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## TM-S single phase control and safety transformers, primary 230-400 V ±15

| Rated power | Secondary voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| VA | V a.c. | EAN | Type code | Order code | | kg | pc. |
| 50 | 12-24 | 368939 | TM-S 50/12-24 P | 2CSM236893R0801 | | 1.1 | 1 |
| 100 | 12-24 | 071631 | TM-S 100/12-24 P | 2CSM207163R0801 | | 2 | 1 |
| 160 | 12-24 | 020738 | TM-S 160/12-24 P | 2CSM202073R0801 | | 3 | 1 |
| 200 | 12-24 | 600435 | TM-S 200/12-24 P | 2CSM260043R0801 | | 3.2 | 1 |
| 250 | 12-24 | 601135 | TM-S 250/12-24 P | 2CSM260113R0801 | | 3.6 | 1 |
| 320 | 12-24 | 600633 | TM-S 320/12-24 P | 2CSM260063R0801 | | 4.4 | 1 |
| 400 | 12-24 | 601036 | TM-S 400/12-24 P | 2CSM260103R0801 | | 5.5 | 1 |
| 630 | 12-24 | 600534 | TM-S 630/12-24 P | 2CSM260053R0801 | | 7.8 | 1 |
| 1000 | 12-24 | 600930 | TM-S 1000/12-24 P | 2CSM260093R0801 | | 13.2 | 1 |
| 1600 | 12-24 | 600831 | TM-S 1600/12-24 P | 2CSM260083R0801 | | 21.2 | 1 |
| 2000 | 12-24 | 600732 | TM-S 2000/12-24 P | 2CSM260073R0801 | | 25.5 | 1 |
| 2500 | 12-24 | 046639 | TM-S 2500/12-24 P | 2CSM204663R0801 | | 26.8 | 1 |
| 50 | 24-48 | 046530 | TM-S 50/24-48 P | 2CSM204653R0801 | | 1.1 | 1 |
| 100 | 24-48 | 046431 | TM-S 100/24-48 P | 2CSM204643R0801 | | 2 | 1 |
| 160 | 24-48 | 046332 | TM-S 160/24-48 P | 2CSM204633R0801 | | 3 | 1 |
| 250 | 24-48 | 046837 | TM-S 250/24-48 P | 2CSM204683R0801 | | 3.2 | 1 |
| 320 | 24-48 | 046738 | TM-S 320/24-48 P | 2CSM204673R0801 | | 3.6 | 1 |
| 400 | 24-48 | 046134 | TM-S 400/24-48 P | 2CSM204613R0801 | | 4.4 | 1 |
| 630 | 24-48 | 046035 | TM-S 630/24-48 P | 2CSM204603R0801 | | 5.5 | 1 |

## TM-I single phase control and isolating transformers, primary 230-400 V ±15

| Rated power | Secondary voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| VA | V a.c. | EAN | Type code | Order code | | kg | pc. |
| 50 | 115-230 | 045830 | TM-I 50/115-230 P | 2CSM204583R0801 | | 1.1 | 1 |
| 100 | 115-230 | 011231 | TM-I 100/115-230 P | 2CSM201123R0801 | | 2 | 1 |
| 160 | 115-230 | 045335 | TM-I 160/115-230 P | 2CSM204533R0801 | | 3 | 1 |
| 200 | 115-230 | 045137 | TM-I 200/115-230 P | 2CSM204513R0801 | | 3.2 | 1 |
| 250 | 115-230 | 045038 | TM-I 250/115-230 P | 2CSM204503R0801 | | 3.6 | 1 |
| 320 | 115-230 | 044932 | TM-I 320/115-230 P | 2CSM204493R0801 | | 4.4 | 1 |
| 400 | 115-230 | 010739 | TM-I 400/115-230 P | 2CSM201073R0801 | | 5.5 | 1 |
| 630 | 115-230 | 044239 | TM-I 630/115-230 P | 2CSM204423R0801 | | 7.8 | 1 |
| 1000 | 115-230 | 044130 | TM-I 1000/115-230 P | 2CSM204413R0801 | | 13.2 | 1 |
| 1600 | 115-230 | 044031 | TM-I 1600/115-230 P | 2CSM204403R0801 | | 21.2 | 1 |
| 2000 | 115-230 | 043836 | TM-I 2000/115-230 P | 2CSM204383R0801 | | 25.5 | 1 |
| 2500 | 115-230 | 043638 | TM-I 2500/115-230 P | 2CSM204363R0801 | | 26.8 | 1 |

## Accessories

| | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Mounting bracket for DIN rail (up to 160 VA) | 010333 | TM-C-DIN | 2CSM201033R0801 | | 0.10 | 10 |

# Command and signalling
## TS-C safety isolating transformers for general use




TS 25 C




TS 63 C

| Technical features | | | | |
|---|---|---|---|---|
| | | TS 25 C | TS 40 C | TS 63 C |
| Primary rated voltage Un | [V] | 230 a.c. | 230 a.c. | 230 a.c. |
| Secondary rated voltage Un | [V] | 12 - 24 V a.c. | 12 - 24 V a.c. | 12 - 24 V a.c. |
| Rated frequency | [Hz] | 50/60 | 50/60 | 50/60 |
| Rated power (continuous use) | [VA] | 25 | 40 | 63 |
| Power loss | [W] | 5 | 10 | 16,7 |
| Modules | [No.] | 4 | 4 | 5 |
| Standards | | IEC/EN 61558-2-6 | | |
| Approvals | | IMQ, VDE, GOST | | |

### TS-C safety isolating transformers for general use

These transformers are non-inherently short-circuit proof. In fact they are equipped with a thermal protective device which automatically restores the power when the transformer is sufficiently cooled down. So even during an overload or a short-circuit they maintain their temperature below the specified limits and they continue functioning after the fault's removal.
They are ideal for supplying permanent power to meters, auxiliary electronic devices (e.g. measu-rement, video-entry phone systems, BUS communication) and circuits with safety extremely-low voltage (SELV) for bathrooms and showers, lighting, fountains, electro-medical devices and suchlike. One important feature of these new devices is that they take up very little space in the 4-module size for the 25 and 40 VA versions and the 5-module size for the 63 VA version.

| Rated power (continuous) | Secondary rated voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| VA | V | EAN | Type code | Order code | | kg | pc. |
| 25 | 12-24 | 928508 | TS 25/12-24 C | 2CSM251043R0811 | | 0.920 | 1 |
| 40 | 12-24 | 928607 | TS 40/12-24 C | 2CSM401043R0811 | | 1.100 | 1 |
| 63 | 12-24 | 928706 | TS 63/12-24 C | 2CSM631043R0811 | | 1.150 | 1 |

**Where to find more:**
Technical details for modular transformers: Chapter 6 of Solutions for electrical distribution in buildings - technical details

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# Command and signalling
## TM bell transformers




TM 15/12




TM 40/12

| Technical characteristics | | |
|---|---|---|
| Rated primary voltage Un | [V] | 230 a.c. |
| Rated secondary voltage Un | [V] | 4, 8, 12, 24 |
| Rated frequency | [Hz] | 50/60 |
| Rated power (discontinuous) | [VA] | 10, 15, 30, 40 |
| Power loss | [W] | 1...4 |
| Modules | [No.] | 2 (TM10,TM15), 3(TM30,TM40) |
| Cable section (Ø min/max) | [$mm^2$] | 1.5 / 10 |
| Tightening torque | [Nm] | 1 |
| Protection degree | | IP 20 |
| Reference standards | | IEC/EN 61558-2-8 |
| Approvals | | GOST, IMQ (TM10, TM15, TM30) |

### TM fail safe bell transformers

These transformers, with safety extremely-low voltage secondary (SELV), are suitable for loads that require a discontinuous supply, and in particular doorbells and chimes.
Fail safe operation and excellent safety are assured thanks to the perfect isolation and separation between the primary and secondary circuits.

| Maximum rated power a (disccontinuous) VA | Secondary voltage rating V c.a. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 10 | 4-8-12 | 367109 | TM10/12 | 2CSM101021R0801 | | 0.300 | 6 |
| 10 | 12-24 | 367208 | TM10/24 | 2CSM101041R0801 | | 0.300 | 6 |
| 15 | 4-8-12 | 367307 | TM15/12 | 2CSM151021R0801 | | 0.300 | 6 |
| 15 | 12-24 | 367406 | TM15/24 | 2CSM151041R0801 | | 0.300 | 6 |
| 30 | 4-8-12 | 367505 | TM30/12 | 2CSM301021R0801 | | 0.450 | 4 |
| 30 | 12-24 | 367604 | TM30/24 | 2CSM301041R0801 | | 0.450 | 4 |
| 40 | 4-8-12 | 367703 | TM40/12 | 2CSM401021R0801 | | 0.450 | 4 |
| 40 | 12-24 | 367802 | TM40/24 | 2CSM401041R0801 | | 0.450 | 4 |

① See diagrams below for the RMS power on each secondary output



**Where to find more:**
Technical details for modular transformers: Chapter 6 of Solutions for electrical distribution in buildings - technical details

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**Maybe you are also interested in:**
CP-D primary switch mode power supplies p.6/65

# Command and signalling
## TS bell transformers




TS 8/8

| Technical characteristics | | |
|---|---|---|
| Rated voltage Un primary | [V] | 230 a.c. |
| Rated voltage Un secondary | [V] | 4, 8, 12, 24 |
| Rated frequency | [Hz] | 50/60 |
| Rated power (discontinuous) | [VA] | 10, 15, 30, 40 |
| Power loss | [W] | 1...4 |
| Modules | [No.] | 2 (TS8,TS16), 3(TS24) |
| Cable section (Ø min/max) | [mm$^2$] | 1.5 / 10 |
| Tightening torque | [Nm] | 1 |
| Protection degree | | IP 20 |
| Reference standards | | IEC/EN 61558-2-8 |
| Approvals | | VDE, GOST |




TS 8/12 SW

6

### TS non-inherently short-circuit proof bell transformers

These transformers, with safety extremely-low voltage secondary (SELV), are suitable for driving loads that call for a discontinuous supply, and in particular doorbells and chimes. In addition to perfect isolation and separation between the primary and secondary circuits, the TS transformers have a thermal protection device integrated into the secondary that makes them resistant to short circuit currents (non-inherently short-circuit proof).
In addition, the TS8/SW series is equipped with a switch for controlling loads connected to the secondary.




TS 24/8-12-24

| Maximum rated power a (disccont.) VA | Secondary voltage rating V c.a. | Switch 0-1 | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 8 | 8 | | 368007 | TS8/8 | 2CSM081301R0811 | | 0.355 | 6 |
| 8 | 12 | | 368106 | TS8/12 | 2CSM081401R0811 | | 0.355 | 6 |
| 8 | 24 | | 368205 | TS8/24 | 2CSM081501R0811 | | 0.355 | 6 |
| 8 | 8 | ■ | 368304 | TS8/8 SW | 2CSM081302R0811 | | 0.277 | 6 |
| 8 | 12 | ■ | 368403 | TS8/12 SW | 2CSM081402R0811 | | 0.277 | 6 |
| 8 | 4-6-8 | ■ | 368601 | TS8/4-6-8 SW | 2CSM081012R0811 | | 0.280 | 6 |
| 8 | 4-8-12 | ■ | 368700 | TS8/4-8-12 SW | 2CSM081022R0811 | | 0.280 | 6 |
| 16 | 8 | | 368809 | TS16/8 | 2CSM161301R0811 | | 0.355 | 6 |
| 16 | 12 | | 368908 | TS16/12 | 2CSM161401R0811 | | 0.355 | 6 |
| 16 | 24 | | 369004 | TS16/24 | 2CSM161501R0811 | | 0.330 | 6 |
| 16 | 4-6-8 | | 369103 | TS16/4-6-8 | 2CSM161011R0811 | | 0.333 | 6 |
| 16 | 4-8-12 | | 369202 | TS16/4-8-12 | 2CSM161021R0811 | | 0.333 | 6 |
| 24 | 4-8-12 | | 369301 | TS24/4-8-12 | 2CSM241021R0811 | | 0.465 | 4 |
| 24 | 8-12-24 | | 369400 | TS24/8-12-24 | 2CSM241031R0811 | | 0.465 | 4 |

① See diagrams below for the RMS power on each secondary output

**Where to find more:**
Technical details for modular transformers: Chapter 6 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/168

**Maybe you are also interested in:**
CP-D primary switch mode power supplies p.6/65

# Command and signalling
## SM, RM, TSM, TSR bells and buzzers




**SM 1-230**




**TSM**

| Technical characteristics | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | SM1-12, RM1-12 | SM1-230, RM1-230 | SM2-12, RM2-12 | SM2-24, RM2-24 | SM2-230, RM2-230 | TSM, TSR |
| Rated Voltage Un | [V c.a.] | 8-12 | 230 | 12 | 24 | 230 | 230 |
| Rated frequency | [Hz] | 50 | 50 | 50 | 50 | 50 | 50 |
| Power consumption | [VA] | 2,5-6,5 | 4,5 | 4,5 | 4,5 | 4,5 | 5,5 |
| Sound level at 1 meter | Bell [dB] | 82 | 82 | 82 | 82 | 82 | 80 |
| | Buzzer [dB] | 80 | 80 | 80 | 80 | 80 | 70 |
| | Three-tones [dB] | | | | | | 84 |
| Max permanent working time | | 15 min | 15 min | 12 h ① | 12 h a | 12 h a | TSM: 1 min TSR: 5 min |
| Max cable cross-section | [mm²] | 10 | 10 | 10 | 10 | 10 | 10 |
| Mounting position | | vertical only | | | | | |
| Protection degree | | IP20-IP40, switchboard mounting | | | | | |
| Modules | [No.] | 1 | 1 | 1 | 1 | 1 | 2 |

① Continuative work for more than 12 hours could affect the sound level

### Bells and buzzers

The range of bells and buzzers includes modular versions for discontinuous use SM1, RM1, TSM and TSR, suitable for acoustic signalling in residential and commercial sectors, and versions for continuous use SM2 and RM2, which are able to operate continuously for up to 12 hours while maintaining the quality and level of the sound. RM2 and SM2 are dedicated to specific applications such as acoustic signalling in the industry, alarms notification, supervision and intensive use (schools, factories etc...). TSM and TSR versions also include a transformer: the input is 230V a.c. and the bell is supplied in 12 or 24 V.

**SM electro-mechanical modular bells**

| Rated voltage V AC | Use | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 8/12 | Discontinuous | 886204 | SM1-12 | 2CSM111000R0821 | | 0.076 | 12 |
| 230 | Discontinuous | 886303 | SM1-230 | 2CSM131000R0821 | | 0.076 | 12 |
| 12 | Continuous | 886600 | SM2-12 | 2CSM112000R0821 | | 0.076 | 12 |
| 24 | Continuous | 886709 | SM2-24 | 2CSM122000R0821 | | 0.076 | 12 |
| 230 | Continuous | 886808 | SM2-230 | 2CSM132000R0821 | | 0.076 | 12 |

**RM electro-mechanical modular buzzers**

| Rated voltage V AC | Use | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 8/12 | Discontinuous | 886419 | RM1-12 | 2CSM211000R0821 | | 0.076 | 12 |
| 230 | Discontinuous | 886518 | RM1-230 | 2CSM231000R0821 | | 0.076 | 12 |
| 12 | Continuous | 886907 | RM2-12 | 2CSM212000R0821 | | 0.076 | 12 |
| 24 | Continuous | 887003 | RM2-24 | 2CSM222000R0821 | | 0.076 | 12 |
| 230 | Continuous | 887102 | RM2-230 | 2CSM232000R0821 | | 0.076 | 12 |

**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/168

# Command and signalling
## SM, RM, TSM, TSR bells and buzzers



TSR

**TSM modular electronic bell (two-tones) + transformer included**

| Rated voltage | Use | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| V AC | | EAN | Type code | Order code | | kg | pc. |
| 230 | Discontinuous | 007005 | TSM | 2CSM100000R0841 | | 0.300 | 6 |

**TSR bell + buzzer + transformer included**

| Rated voltage | Use | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| V AC | | EAN | Type code | Order code | | kg | pc. |
| 230 | Discontinuous | 369608 | TSR | 2CSM100000R0831 | | 0.300 | 1 |

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**Where to find more:**
Worldwide marks and approvals of MDRCs p.15/168

# Command and signalling
## CP-D primary switch mode power supplies




**CP-D**

### Technical features

| | | | CP-D 12/0.83 | CP-D 12/2.1 | CP-D 24/0.42 | CP-D 24/1.3 | CP-D 24/2.5 | CP-D 24/4.2 |
|---|---|---|---|---|---|---|---|---|
| **Input circuit** | | | | | | | | |
| Rated voltage | | [V] a.c. | 100-240 | | | | | |
| Voltage range | | [V] a.c. | 90-264 | | | | | |
| | | [V] d.c. | 120-370 | | | | | |
| Frequency range | | [Hz] | 47-63 | | | | | |
| Backup battery for voltage drop | | [ms] | >30 | >30 | >30 | >30 | >60 | >60 |
| Built-in fuse rating (250 V AC) | | [A] | 1 | 2 | 1 | 2 | 2 | 3,15 |
| Power dissipation | at 110 V AC | [mA] | 200 | 502 | 184 | 600 | 1120 | 1800 |
| | at 230 V AC | [mA] | 128.3 | 277 | 120.6 | 344 | 660 | 900 |
| Starting current (max 3ms) | | [A] | 30 | 50 | 30 | 50 | 60 | 60 |
| **Output circuit** | | | | | | | | |
| Rated voltage | | [V] d.c. | 12 | 12 | 24 | 24 | 24 | 24 |
| Output voltage tolerance | | | ±1% | | | | | |
| Adjustable output voltage | | | 12-14 V d.c. | | | 24-28 V d.c. | 24-28 V d.c. | 24-28 V d.c. |
| Rated current | | [A] | 0.83 | 2.10 | 0.42 | 1.30 | 2.50 | 4.20 |
| Rated power | | [W] | 10 | 30 | 10 | 30 | 60 | 100 |
| Resistance to reverse feed | | | 18 V d.c. / 1 s | 18 V d.c. / 1 s | 35 V d.c. / 1 s | 35 V d.c. / 1 s | 35 V d.c. / 1 s | 35 V d.c. / 1 s |
| Parallel connection | | | Yes, using CP-D RU | | | | | |
| Series connection | | | Allowed, to increase output voltage | | | | | |
| **Output circuit: no-load, overload, and short-circuit behaviour** | | | | | | | | |
| Output curve | | | U/I Curve a | | | | | |
| Behaviour in case of short-circuit/ overload | | | Operation with power limitation | | | | | |
| Power limit in case of short-circuit | | [A] | 1.4 | 5.9 | 0.78 | 4.2 | 6.05 | 11.5 |
| No-load behaviour | | | Stable operations | | | | | |
| **LED status indicator** | | | | | | | | |
| Green LED (DC ON) | | | Output voltage supplied correctly | | | | | |
| Red LED (DC Low) | | | Output voltage too low | | | | | |
| Operating temperature | | [°C] | -10…+70 | | | | | |
| Output current derating for temperature of 60°C < ta < 70°C | | | 2.5% / degree | | | | | |
| Marks | | | UR, CSA, CCC, GOST | | | | | |



**Maybe you are also interested in:**
EPD24 - Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies p.5/106

# Command and signalling
## CP-D primary switch mode power supplies




**CP-D 12/0.83,**
**CP-D 24/0.42**




**CP-D 12/2.1**
**CP-D 24/1.3**




**CP-D 24/2.5**




**CP-D 24/4.2**

### Primary switch mode power supplies

- Output voltages 12 V, 24 V
- Adjustable output voltages (devices > 10 W)
- Output currents 0.42 A / 0.83 A / 1.3 A / 2.1 A / 2.5 A / 4.2 A
- Power range 10 W, 30 W, 60 W, 100 W
- Wide range input 100-240 V AC (90-264 V AC, 120-370 V DC)
- High efficiency of up to 89 %
- Low power dissipation and low heating
- Free convection cooling (no forced cooling with ventilators)
- Ambient temperature range during operation -10...+70 °C
- Open-circuit, overload and short-circuit stable
- Integrated input fuse
- U/I characteristic (fold-forward behaviour at overload – no switch-off)
- LEDs for status indication
- Light-grey enclosure in RAL 7035

| Rated input voltage | Rated output voltage/current | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| V | V / A | EAN | Type code | Order code | | kg | pc. |
| 100-240 V AC | 12 V DC / 0.83 A | | CP-D 12/0.83 | 1SVR 427 041 R1000 | | 1 | 0.06/0.13 |
| 100-240 V AC | 12 V DC / 2.1 A | | CP-D 12/2.1 | 1SVR 427 043 R1200 | | 1 | 0.19/0.41 |
| 100-240 V AC | 24 V DC / 0.42 A | | CP-D 24/0.42 | 1SVR 427 041 R0000 | | 1 | 0.06/0.13 |
| 100-240 V AC | 24 V DC / 1.3 A | | CP-D 24/1.3 | 1SVR 427 043 R0100 | | 1 | 0.19/0.41 |
| 100-240 V AC | 24 V DC / 2.5 A | | CP-D 24/2.5 | 1SVR 427 044 R0200 | | 1 | 0.25/0.55 |
| 100-240 V AC | 24 V DC / 4.2 A | | CP-D 24/4.2 | 1SVR 427 045 R0400 | | 1 | 0.32/0.71 |

**CP-D RU for decoupling of two CP-D power suply units**

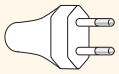
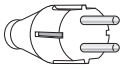
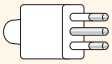
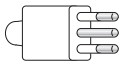
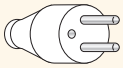
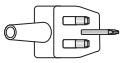
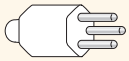
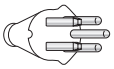
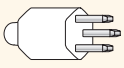
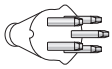
| Rated input voltage | Rated input current | Rated output voltage/ current | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| V | A | V / A | EAN | Type code | Order code | | kg | pc. |
| 9-35 V DC | 2 x 5 A | 24 V DC / 1 x 10 A | | CP-D RU | 1SVR 427 049 R0000 | | 1 | 0.075 / 0.165 |

**Maybe you are also interested in:**
EPD24 - Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies p.5/106

# Command and signalling
## Modular sockets selection table

### Series selection

For further information about sockets selection by country please see in Chapter 6 of Solutions for electrical distribution in buildings - Technical details

| | | M1175 | M1173 | M1170 | M1174 | M1363 | M1176 | M2071 | M1011 |
|---|---|---|---|---|---|---|---|---|---|
|  | EU 10A | ■ | ■ | ■ | ■ | | | | ■ |
|  | Schuko 10 A / 16 A | ■ | ■ | ■ | | | | | |
|  | Italian 10 A | | ■ | ■ | | | | | |
|  | Italian 16 A | | | ■ | | | | | |
|  | French 10 A / 16 A | Pluggable but not earthed | Pluggable but not earthed | Pluggable but not earthed | ■ | | | | |
|  | British 13 A | | | | | ■ | | | |
|  | Swiss | | | | | | | | ■ |
|  | | | | | | | | | ■ |
|  | | | | | | | | | ■ |
|  | | | | | | | | | ■ |

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# Command and signalling
# Modular sockets selection table

## Model selection

| | | | | RAL 7035 |
|---|---|---|---|---|
| **German Schuko Strandard** | | | | |
|  | M1175 | | | 2CSM210000R0721 |
|  | M1175-L |  Indicator light | | 2CSM212000R0721 |
|  | M1175-FL |  Indicator light |  Fuse 6.3 A aM | 2CSM214000R0721 |
|  | M1175-C |  Cover IP30 | | 2CSM211000R0721 |
| **Italian P30 standard** | | | | |
|  | M1173 | | | 2CSM110000R0701 |
|  | M1173-L |  Indicator light | | 2CSM112000R0701 |
| **Italian dual standard** | | | | |
|  | M1170 | | | 2CSM210000R0701 |
| **French Standard** | | | | |
|  | M1174 | 2CSM110000R0711 | | 2CSM110000R0711 |

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| | | | RAL 7035 |
|---|---|---|---|
| **British Standard** | | | |
|  | M1363 | 2CSM259343R0721 | 2CSM259343R0721 |
|  | M1363-L |  Indicator light | 2CSM258163R0721 |
| **Swiss standard SEV 2011** | | | |
|  | M1011-T13 | Single-phase 10 A<br>Type 13 | 2CSM220685R0721 |
|  | M1011-T23 | Single-phase 16 A<br>Type 23 | 2CSM220695R0721 |
|  | M1011-T15 | Three-phase 10 A<br>Type 15 | 2CSM220705R0721 |
|  | M1011-T25 | Three-phase 16 A<br>Type 25 | 2CSM220715R0721 |

# Command and signalling
## Modular sockets



**Modular sockets**

| Technical specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rated voltage Un | | [V] | 250 a.c. | | | | | |
| Rated current In | | [A] | 16 (M1170, M1173, M1174, M1175), 13 (M1363), | | | | | |
| Rated frequency | | [Hz] | 50/60 | | | | | |
| Power loss | | [W] | 0,6 | | | | | |
| Modules | | [No.] | 2.5 for M117x<br>3 for M1011, M1363 | | | | | |
| Safety shutters | | | yes, on entire range | | | | | |
| Cable section (ø min./max.) | | [mm²] | 2.5 / 16 | | | | | |
| Tightening torque | | [Nm] | 1.2 | | | | | |
| Temperature | storage | [°C] | -40 … +70 | | | | | |
| | operating | [°C] | -25 … +35 | | | | | |
| Protection degree | | | IP20 / IP30 versions with cover, when cover is closed | | | | | |
| | | | M1011 | M1175 | M1173 | M1170 | M1174 | M1363 |
| Reference standards | | | SEV 1011 | DIN VDE 0620-1 | CEI 23-50 | | NF C 61 314 | BS1363 |
| Approvals | | | SEV | VDE, EAC | IMQ, EAC | EAC | LCIE, CEBEC, EAC | BSI |

| Indicator light technical specifications | | |
|---|---|---|
| Type | | fluorescent torpedo-shaped lamp |
| Function | | Indication of power supply presence (M1363, M1173, M1175) |
| Light colour | | green |
| Power consumption | [W] | 0.25 |

| Fuse technical specifications | | |
|---|---|---|
| Type | | 5 x 20 mm up to 6.3 A aM |
| Function | | phase protection |
| Breaking capacity | [A] | 1500 |
| Reference standard | | IEC EN 60127 |

**Where to find more:**
Technical Details for Modular Sockets: Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide Marks and Approvals p.15/168

**Frequently asked question - FAQ:**
Why do modular sockets not have the CE mark?
ABB modular sockets are not “CE” marking as this is not required by European Directive 2005/95/EC, which indicates (Annex II) that products identified as “Domestic plugs and sockets” are out of the scope of the european directive.




M1175




M1175-C




M1175-C




M1175-FL




M1173

## Modular sockets

Modular sockets allow the connection of devices, tools or electrical and electronic non modular equipments in civil and industrial electrical switchboards.
The range is composed by standard versions as well as upgraded versions with additional features as light indicator, protection fuse and cover.

**German Shuko standard modular sockets**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey | 027850 | M1175 | 2CSM210000R0721 | | 0,120 | 4 |
| grey with cover | 029052 | M1175-C | 2CSM211000R0721 | | 0,140 | 4 |

**German Shuko standard modular sockets with integrated indicator light and fuse**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey with light | 028253 | M1175-L | 2CSM212000R0721 | | 0,140 | 4 |
| grey with light and fuse | 028659 | M1175-FL | 2CSM214000R0721 | | 0,160 | 4 |

**Italian P30 standard modular sockets**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey | 004103 | M1173 | 2CSM110000R0701 | | 0,120 | 4 |

**Italian P30 standard modular sockets with integrated indicator light**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey with light | 027058 | M1173-L | 2CSM112000R0701 | | 0,140 | 4 |

# Command and signalling
## Modular sockets




M1170




M1174




M1363

**Italian dual standard modular sockets**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey | 027454 | M1170 | 2CSM210000R0701 | | 0,120 | 4 |

**French standard modular sockets**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey | 006602 | M1174 | 2CSM110000R0711 | | 0,140 | 4 |

**British standard modular sockets.**

| Color | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| grey | 593430 | M1363 | 2CSM259343R0721 | | 0,140 | 4 |
| grey with light | 581635 | M1363-L | 2CSM258163R0721 | | 0,140 | 4 |

**Where to find more:**
Technical Details for Modular Sockets:
Chapter 6 of
Solutions for electrical distribution in buildings - technical details

Worldwide Marks and Approvals
p.15/168

**Frequently asked question - FAQ:**
Why do modular sockets not have the CE mark?
ABB modular sockets are not “CE” marking as this is not required by European Directive 2005/95/EC, which indicates (Annex II) that products identified as “Domestic plugs and sockets” are out of the scope of the european directive.




M1011-T13




M1011-T23




M1011-T15




M1011-T25

**Swiss standard modular sockets**
**The M1011 series, with SEV certification, allows to plug four types of swiss standard plugs, single- and three-phase e with currents up to 10 A or 16 A.**
**They can be mounted on DIN rail or Smissline rails without supply connection.**

| Color | | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| grey | Single-phase 10 A | 206873 | M1011-T13 | 2CSM220685R0721 | | 0.140 | 4 |
| grey | Single-phase 16 A | 206972 | M1011-T23 | 2CSM220695R0721 | | 0.140 | 4 |
| grey | Three-phase 10 A | 207078 | M1011-T15 | 2CSM220705R0721 | | 0.170 | 4 |
| grey | Three-phase 16 A | 207177 | M1011-T25 | 2CSM220715R0721 | | 0.170 | 4 |

# Command and signalling
# MA1-8001 DIN rail adapter



MA1-8001



MA1-8121

6

## MA1-8001 DIN rail adapter

Through an appropriate kit, this product born with the Modular Range of Pilot devices is the perfect case for alongside Ø 22 mm pilot devices with “System pro M compact” products. The Ø 22 mm pilot devices can now find a greater use even within distribution or automation switchboards with modular panels maintaining an high aesthetic level.
The MA1-8001 offers a lot of advantages:

- Fast and easy mounting
- Simple wiring
- Simple maintenance
- Less depth of operators
- Perfect harmony alongside the “System pro M compact” products

Using MA1-8001 it’s possible to put together “System pro M compact” products with LED pilot light, potentiometer, key selectors , toggle switches, selector switches, push- buttons, mushroom buttons and emergency stop, illuminated or not.
For detailed description of the industrial devices that can be installed using this kit, see technical catalogue 1SFC151003C0201

| Color | Bbn 7320500 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| DIN rail adapter KIT (2 modules) ① ② | 357880 | MA1-8001 | 1SFA611920R8001 | | 0.023 | 1 |
| DIN rail adapter (2 modules) ① | 357702 | MA1-8131 | 1SFA611920R8131 | | 0.020 | 10 |

① Can be used only with Modular range pilot devices units; it cannot be used with the old CBK range or Compact range products.
② KIT includes one Din rail adapter, one empty block and 2 pins

## Technical notes

- To assemble the new housing with push-buttons, selector switch and indicator lamps, contact blocks and lamp blocks for DIN rails must be used.
- The MCBH-00 holder is not necessary, because the housing hooks directly to contact blocks.
- To line up with “System pro M compact” products, a maximum of 3 blocks must be used.
- In the configuration with 3 contacts, it is advisable to use securing pins to make the blocks more solid.
- In making up actuators or indicator lamps that use a single contact, one or two MDB-2 empty blocks must be used.

# Solutions for electrical distribution in buildings
## Control and automation

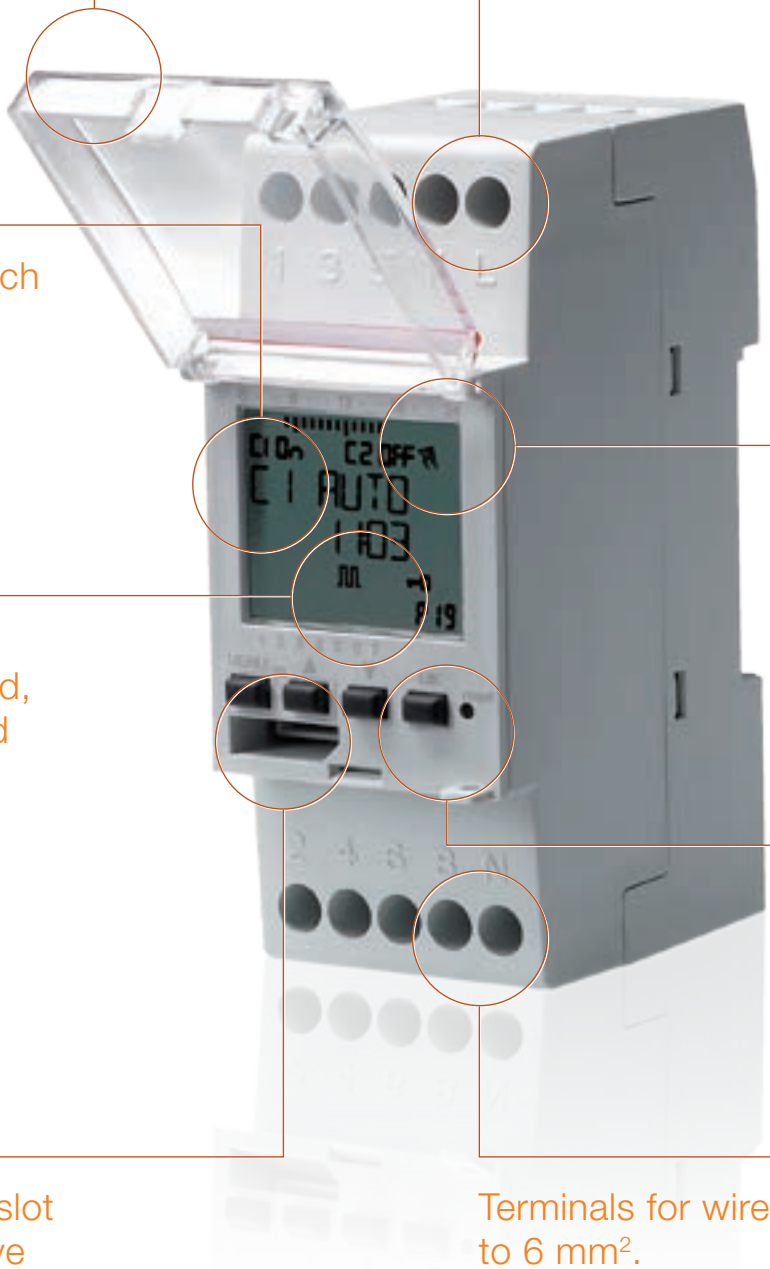
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# D Line. Simply precise
## An ideal range for automating the functions of the installation

Sealable glass and keypad lock to prevent tampering by unauthorised personnel.

Inputs for the connection of remote controls (i.e. switches and buttons) and for DCF77 or GPS receiver connection



Clear display of each contact status

High contrast LCD monitor for excellent visibility in all conditions due to timed back-lighting

Wide range of programs: standard, cyclic, random and holiday

Permanent or temporary manual deviation, directly activated with a single touch

Programming key slot to run, copy or save programs

Terminals for wires up to 6 $mm^2$.




Wide range of programs: standard, cyclic, random and holiday
- Permanent or temporary manual deviation, directly activated with a single touch
- Graphical display of the complete sequence of switchings provided by the program in memory, for each of the channels in the day in question
- External inputs for the connection of one or more remote commands, for example: switches or buttons
- 64 memory locations
- Accuracy of ±0,5 seconds/day
- Switching change solar time/daylight saving time
- Load reserves for 6 years (lithium battery)



Programming key D KEY allows to run a program in EMD external memory automatically, to save the programs in the time switch or created by the D SW programming software, on the D KEY external memory and viceversa.
Furthermore, the holiday programs can be loaded and unloaded on D KEY.






D Line time switches' programming can be executed directly on your PC thanks to D SW software that lets you quickly, simply and easily create complex programs from your desktop.
Indeed, it is possible to transfer the program to the memory unit and then copy it on multiple devices, avoiding any errors in reprogramming.
Once created, the program can be printed or saved to file as pdf.




Time synchronization via DCF77 or GPS antennas. The D DCF77 antenna receives scheduled messages transmitted by the atomic clock installed c/o Mainflingen (Germany), near Frankfort. Thanks to this signal, the time switches are automatically setted to: hour, date and proper daylight saving time. The D GPS antenna receives time from the Global Positioning System, providing an accurate location and time information for an unlimited number of people in all weathers, day or night, anywhere in the world; time is derived from different sources simultaneously that allow the time switch to compensate for propagation delays.

# Control and automation
## D Line digital time switches




**D Line**

**Technical specifications D Line**

| | | D1 | D1 PLUS | D1 SYNCHRO | D2 | D2 PLUS | D2 SYNCHRO |
|---|---|---|---|---|---|---|---|
| Rated voltage | [V] | 230 AC ± 10% | | | | | |
| Rated pulsating voltage | [kV] | 4 | | | | | |
| Contact type | | Contact relay in free exchange from potential | | | | | |
| Programming key | | - | ■ | ■ | - | ■ | ■ |
| External input | | ■ | ■ | - | ■ | ■ | - |
| DCF77 antenna | | - | - | ■ | - | - | ■ |
| GPS antenna | | - | - | ■ | - | - | ■ |
| Programming software | | - | ■ | ■ | - | ■ | ■ |
| 250 V contact capacity | |  | | | | | |
| Ohm loads | [A] | 16 16 | | | | | |
| Inductive loads | [A] | 10 2 | | | | | |
| Rated frequency | [Hz] | 50-60 | | | | | |
| Time base | | quartz | | | | | |
| Minimum switching | [sec.] | 1 | | | | | |
| Max programs per cycle | [n°] | 64 (can be coupled in day blocks) | | | | | |
| Running reserve | [year] | 6 from the first start-up (lithium battery) | | | | | |
| External input | [n°] | 1 | | - | 2 | | - |
| Activity suspension | | From 1 day to 12 months | | | | | |
| Operating precision | [sec./ day] | ± 0.5 | | | | | |
| Max. dissipated power | [VA] | 6.5 | | | 7.8 | | |
| Max. switch power | [VA] | 3500 | | | | | |
| Incandescent lamps | [W] | 3000 | | | | | |
| Non-rephased fluorescent lamps | [W] | 1100 | | | | | |
| Fluorescent tube lamps rephased in parallel | [W] | 900 | | | | | |
| Fluorescent tube lamps with electronic reactor | [W] | 7 ÷ 23 (max. 23 lamp.) | | | | | |
| Fluorescent tube lamps rephased in series | [W] | 1100 | | | | | |
| Protection degree | [IP] | 20 | | | | | |
| Max. terminal cross-section | [mm²] | 6 | | | | | |
| Terminals | | In positive safety with captive screw | | | | | |
| Tightening torque | [Nm] | 0.5 | | | | | |
| Installation type | | DIN rail | | | | | |
| Operating temperature | [°C] | -5 … +55 | | | | | |
| Storage temperature | [°C] | -10 … +65 | | | | | |
| Modules | [n°] | 2 | | | | | |
| Reference standards | | EN 60730-1; EN 60730-2-7 | | | | | |

## Technical features Accessories for D Line

| | | D DCF77 | D GPS |
|---|---|---|---|
| Rated supply voltage | [V] | 230 AC ±20% | |
| Rated frequency | [Hz] | 50/60 | |
| Power loss | [W] | 0.1 | 2 |
| Operating temperature | [°C] | -10…+70 | -10…+40 |
| Storage temperature | [°C] | -30…+90 | -40…+85 |
| Power consumption | [VA] | 9.2 | 2 |
| Time of the signal | | 1 sending / min. | min 30 sendings/hour; max 50 sendings/hour |
| Protection degree | [IP] | 65 | 65 |
| Max. number of connected devices | [No.] | 10 | 10 |
| Max. wiring length | [m] | 1000 | 1000 |
| Terminal size for cable | [mm²] | 0.5...2.5 | 0.5...2.5 |
| Mounting | | pole/wall | pole/wall |

## Technical features D 365 Line

| | | | D 365 | D 365 CE |
|---|---|---|---|---|
| Rated voltage Un | | [V AC] | 230 | 110..230 |
| Contact type | | | 2 NO/NC | 2 NO/NC |
| Switching capacity | ohmic loads | [A] | 16 | 16 |
| | inductive loads | [A] | 10 | 10 |
| Rated frequency | | [Hz] | 50/60 | |
| Power dissipation | | [VA] | 5 | |
| Incandescent lamps | | [W] | 2600 | 2600 |
| Halogen lamps | | [W] | 2600 | 2600 |
| Compensated fluorescent lamps | | [W] | 1000 | 1000 |
| Non-compensated fluorescent lamps | | [W] | 1000 | 1000 |
| Time base | | | quartz | quartz |
| Minimum ON/OFF switching time | | [sec.] | 1 | 1 |
| Max. no. of commands per cycle | | [n°] | 800 | - |
| Pulse duration | | | 1 sec … 99 min | 1 sec … 99 min |
| Running reserve | | [years] | 10 | - |
| Operating accuracy at 20 °C | | [sec./day] | +1 | +1 |
| Operating temperature | | [°C] | -5…+55 | |
| Ambient temperature | | [°C] | -10…+55 | |
| Protection degree | | [IP] | 20 | |
| Terminals | | | loss-proof screw | |
| Max. terminal cross-section | | [mm²] | 4 | |
| Sealable | | | yes | |
| Installation type | | | on DIN rail | |
| Modules | | [n°] | 3 | 2 |
| Standards | | | EN 60730-1 | |

# Control and automation
## D Line digital time switches




D1

| Technical features Accessories for D 365 Line | | |
|---|---|---|
| | | D 365 DCF77 |
| Rated voltage Un | [V] | 230 AC |
| Rated frequency | [Hz] | 50/60 |
| Power dissipation | [mW] | 3 |
| Ambient temperature | [°C] | -20...+60 |
| Degree of protection | [IP] | 54 |
| Max. distance from programmer | [m] | 3000 |
| Installation | | pole/wall |




D1 PLUS

### D Line weekly digital time switches

The unique design, with white backlit LCD display, and extreme ease of use with two lines of text menu and only four buttons, make D Line ideal to automate the installation functions.
Thanks to the innovative management of time vacation, the D Line digital time switches allow the exclusion of the normal weekly program in one or more periods of several years or between two different years.
The range includes 1 and 2 channel versions, equipped with large capacity internal battery to maintain operation without power supply and permanent memory EEPROM, to avoid the risk of program loss and to maintain the date and time settings in the event of power failure, irrespective of its duration.
The “Plus” version can transfer different type of program by using a D KEY to be quickly copied in No digital time switches, avoiding the errors due to future modification. The “SYNCHRO” version can be coupled to the D DCF77 antenna, that allows an automatic synchronization of the digital time switch with the Frankfurt DCF77 time signal, or can be coupled to the D GPS antenna to allows synchronization received from the Global Positioning System.
The D Line is particularly useful in environments and situations where user management is required with a time schedule flexible enough to predict or exclude activities according to time and day of week or month.

| Channels no. | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1 | 587637 | D1 | 2CSM258763R0621 | | 0.140 | 1 |
| 1 | 575832 | D1 PLUS | 2CSM257583R0621 | | 0.140 | 1 |
| 1 | 574934 | D1 SYNCHRO | 2CSM257493R0621 | | 0.140 | 1 |
| 2 | 563136 | D2 | 2CSM256313R0621 | | 0.140 | 1 |
| 2 | 775836 | D2 PLUS | 2CSM277583R0621 | | 0.140 | 1 |
| 2 | 773634 | D2 SYNCHRO | 2CSM277363R0621 | | 0.140 | 1 |

| Accessories for D Line digital time switches | | | | | | |
|---|---|---|---|---|---|---|
| Version | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
| | EAN | Type code | Order code | | kg | pc. |
| Programming key | 771432 | D KEY | 2CSM277143R0621 | | 0.005 | 1 |
| Programming software | 999737 | D SW | 2CSM299973R0621 | | 0.020 | 1 |
| DCF77 antenna | 999836 | D DCF77 | 2CSM299983R0621 | | 0.150 | 1 |
| GPS antenna | 999935 | D GPS | 2CSM299993R0621 | | 0.150 | 1 |

**Where to find more:**
Technical details for D Line:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

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D 365




D 365 CE




D 365 DCF77




D 365 KEY

## D 365 Line yearly digital time switches

The D 365 yearly digital time switch, thanks to its extreme flexibility in use characterized by the extensive availability of 800 memory spaces and the possibility to manage up to 8 independent contacts, is especially suitable for managing small automated systems, allowing you to control multiple utilities or utility groups that require time differentiated commands, but with a common clock reference.

The backlit display provides a clear view even in the dark. The lithium battery, with a 6 year life, can be replaced thus extending the lifetime of the device. Like the weekly version, D 365 is equipped with various functions such as the impulse, cyclic, holiday, random, hour counter, countdown function, in addition to being able to maintain the hour and date synchronized with the hourly signal received by the DCF77 antenna.

| Channels no. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 2 | 569732 | D 365 | 2CSM256973R0621 | | 0,250 | 1 |

## Accessories for D 365 Line yearly digital time switches

D 365 yearly digital clocks can be programmed directly on your PC thanks to the programming software which makes it quick and easy to create programs. The program can in fact be transferred to a D 365 KEY portable memory unit and then copied from there to multiple devices, thus avoiding reprogramming errors. Always using the programming software, you can use the digital time switch as a conventional astronomical time switch. By defining the latitude and longitude of the geographical place of installation, it is possible to automatically control the circuit lighting based on sunrise and sunset times.

The D 365 CE channel extension unit, in 2 changeover contacts, is instead coupled to the D 365 yearly time switch to expand the number of contacts managed from 2 to a maximum of 8.

The D 365 DCF77 antenna, used in conjunction with the device, enables it to be automatically synchronized with the official DCF77 Frankfurt time signal, broadcast via long wave radio, with a maximum range of about 2500 km from Frankfurt.

| | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Programming key | 582830 | D 365 KEY | 2CSM258283R0621 | | | 1 |
| Channel extension | 594635 | D 365 CE | 2CSM259463R0621 | | | 1 |
| DCF77 antenna | 571032 | D 365 DCF77 | 2CSM257103R0621 | | | 1 |

# Control and automation
## AT electro-mechanical time switches




AT1

| Technical features | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | AT1 | AT1-R | AT3 | AT3-R | AT3-7R |
| Rated supply voltage | | [V] | 230 AC + 10% | | | | |
| Contact type | | | 1NO | 1NO | 1CO | 1 CO | 1CO |
| Switching capacity | resistive load | [A] | 16 | | | | |
| | inductive load | [A] | 4 | 4 | 3 | 3 | 3 |
| Rated frequency | | [Hz] | 50-60 | | | | |
| Time base | | | quartz | | | | |
| Minimum switching time | | [min] | 15 | 15 | 15 | 15 | 120 |
| Max number of commands per cycle | | | 96 | 96 | 96 | 96 | 84 |
| Running reserve | | [h] | - | 200 | - | 200 | 200 |
| Accurary | | | ± 1sec / 24h | | | | |
| Power consumption | | [VA] | 0.5 | | | | |
| Max. switching power | | [W] | 4000 | | | | |
| Max. terminal cross-section | | [mm²] | 4 | | | | |
| Terminals | | | loss-proof screw | | | | |
| Tightening torque | | [Nm] | 1.2 | | | | |
| Mounting | | | on DIN rail | | | | |
| Operating temperature | | [°C] | -10....+55 | | | | |
| Storage temperature | | [°C] | -10...+55 | -10...+55 | -20 ...+70 | -10....+55 | -10....+55 |
| Modules | | | 1 | 1 | 3 | 3 | 3 |
| Reference standards | | | EN 60730-1 ; EN 60730-2-7 | | | | |

### AT electro-mechanical time switches

They control circuit opening and closing according to the scheduled program. Available both on daily and weekly version and equipped with a 16A contact, they can be set on the scheduled program or on the permanent ON function (ON-OFF only for three modules versions). The AT1-R, AT3-R and AT3-7R versions are equipped with a built-in battery, generally charged by the network voltage, which allows the devices to maintain the set time also in case of long (up to 200h) power supply failures. The products fit applications such as shop lighting systems, public buildings, schools, heating and irrigation systems and so forth.

| Contacts | Running reserve | Version | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1NO | - | daily | 042051 | AT1 | 2CSM204205R0601 | | 0,095 | 1 |
| 1NO | 200h | daily | 042150 | AT1-R | 2CSM204215R0601 | | 0,095 | 1 |
| 1CO | - | daily | 042259 | AT3 | 2CSM204225R0601 | | 0,180 | 1 |
| 1CO | 200h | daily | 042358 | AT3-R | 2CSM204235R0601 | | 0,180 | 1 |
| 1CO | 200h | weekly | 042457 | AT3-7R | 2CSM204245R0601 | | 0,180 | 1 |

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# Control and automation
## AT2 electro-mechanical time switches




AT2




AT2-7R

**Technical features**

| | | | AT2 | AT2-R | AT2-7R |
|---|---|---|---|---|---|
| Rated supply voltage | | [V] | 230 AC | | |
| Contact type | | | 1 CO | | |
| Switching capacity | resistive load | [A] | 16 | | |
| | inductive load | [A] | 4 | | |
| Rated frequency | | [Hz] | 50-60 | | |
| Time base | | | quartz | | |
| Minimum switching time | | [min] | 30 | 30 | 210 |
| Max number of commands per cycle | | | 48 | | |
| Running reserve | | [h] | - | 150 | 150 |
| Accuracy | | | ± 1sec / 24h | | |
| Power consumption | | [VA] | 0.5 | | |
| Max. switching power | | [W] | 3500 | | |
| Max. terminal cross-section | | [mm²] | 2.5 | | |
| Terminals | | | loss-proof screw | | |
| Tightening torque | | [Nm] | 0.5 | | |
| Mounting | | | on DIN rail | | |
| Operating temperature | | [°C] | -10 ...+50 | | |
| Storage temperature | | [°C] | -10 ...+50 | | |
| Modules | | | 2 | | |
| Reference standards | | | EN 60730-1 ; EN 60730-2-7 | | |

### AT2 electro-mechanical time switches

The AT2 versions are particularly useful where there is the need to have a complete visibility of the programmable dial in only two modules.They control, as well as the AT1 and AT3 ones, circuit opening and closing according to a scheduled program and are available both on daily and weekly version with a 16A change-over contact. They can be set on the scheduled program or on permanent ON and the versions AT2-R and AT2-7R are equipped with a built-in battery, generally charged by the network voltage, which allows the devices to maintain the set time also in case of long (up to 150h) power supply failures. The products fit applications such as store lighting system, public buildings, schools, heating and irrigation systems and so forth.

| Contacts | Running reserve | Version | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 1 CO | - | daily | 041054 | AT2 | 2CSM204105R0601 | | 0,118 | 1 |
| 1 CO | 150h | daily | 041153 | AT2-R | 2CSM204115R0601 | | 0,118 | 1 |
| 1 CO | 150h | weekly | 041252 | AT2-7R | 2CSM204125R0601 | | 0,118 | 1 |

**Where to find more:**
Technical details for AT2:
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Solutions for electrical distribution in buildings - technical details

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# Control and automation
## ATP electro-mechanical time switches




ATP

| Technical features | | | | | |
|---|---|---|---|---|---|
| | | | ATP | ATP-R | ATP-7R |
| Rated voltage | | [V] | 230 AC + 10% | | |
| Contact type | | | 1NO/NC | | |
| Switching capacity | ohmic loads | [A] | 16 | | |
| | inductive loads | [A] | 3 | | |
| Rated frequency | | [Hz] | 50-60 | | |
| Time base | | | quartz | | |
| Minimum switching time | | [min] | 10 | | 60 |
| Max. no. of commands per cycle | | | 72 | | 84 |
| Running reserve | | [h] | - | 200 | |
| Operating accuracy | | | + 1 sec / 24 h | | |
| Switching accuracy | | | 1,5 | | 10 |
| Power dissipation | | [VA] | 0,5 | | |
| Max. switching power | | [W] | 1.000 | | |
| Min./Max. terminal cross-section | | [mm²] | 1…6 | | |
| Terminals | | | loss-proof screw | | |
| Tightening torque | | [Nm] | 1.2 | | |
| Installation type | | | wall/panel | | |
| Operating temperature | | [°C] | -10 …+50 | | |
| Storage temperature | | [°C] | -20 …+60 | | |
| Standards | | | EN 60730 | | |

### ATP electro-mechanical time switches

These switches are used to control circuit opening and closing according to a preset program. Available in daily or weekly versions, with or without running reserve, they are characterized by the settings on the front, which during the holding time of the load, allows for the contact status in ON/OFF to be forced until the next switch time. The ATP range is the perfect solution for lighting systems in shops, public buildings, in heating and irrigation systems, etc.

| Contacts | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1NO/1NC | 592334 | ATP | 2CSM259233R0601 | | | 1 |
| 1NO/1NC | 580539 | ATP-R | 2CSM258053R0601 | | | 1 |
| 1NO/1NC | 568735 | ATP-7R | 2CSM256873R0601 | | | 1 |

**Where to find more:**
Technical details for AT2:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

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# Control and automation
## E 232 staircase lighting time-delay switches

### Technical features

| | E 232-230 | E 232E-230N | E 232E-8/230N | E 232E-230 Multi 10 | E 232E-8/230 Multi 10 |
|---|---|---|---|---|---|
| Time range (stepless) | 1 – 7 min. in 15 sec. increments | 0.5 – 20 min. stepless | 0.5 – 20 min. stepless | 0.5 – 20 min. stepless | 0.5 – 20 min. stepless |
| Control voltage 230 V AC | ■ | ■ | ■ | ■ | ■ |
| Universal voltage in addition | | | 8 … 240 V AC/DC | | 8…240 V AC/DC |
| Glow lamp load | 50 mA | 150 mA | 150 mA | 150 mA | 150 mA |
| 3/4 conductor operated | switches | automatically | automatically | automatically | automatically |
| Resettable | ■ | ■ | ■ | ■ | ■ |
| Steady-light switch | ■ | ■ | ■ | ■ | ■ |
| Advance warning acc. DIN 18015-2 | | | | ■ | ■ |
| Long-time range of 60 min. | | | | ■ | ■ |
| Multi-functional (10 functions) | | | | ■ | ■ |
| Rated voltage | 230 V AC | 240 V AC | 240 V AC | 240 V AC | 240 V AC |
| | 50Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz |
| Control voltage range | 0.9 ... 1.1 Un | 0.85 ... 1.1 Un | 0.85 ... 1.1 Un | 0.85 ... 1.1 Un | 0.85 ... 1.1 Un |
| Power loss | 1 VA | 6 VA | 6 VA | 6 VA | 6 VA |
| Rated switching capacity | 16 A, 230 V AC | 16 A, 230 V AC | 16 A, 230 V AC | 16 A, 230 V AC | 16 A, 230 V AC |
| Filament lamp load | 2,300 W | 2,300 W | 2,300 W | 3,600 W | 3,600 W |
| Halogen lamp load | 2,300 W | 2,300 W | 2,300 W | 3,600 W | 3,600 W |
| Fluorescent lamps series compensated / uncorrected | 2,300 VA | 2,300 VA | 2,300 VA | 3,600 VA * | 3,600 VA * |
| Fluorescent lamps inductive or capacitive | 2,300 VA | 2,300 VA | 2,300 VA | 3,600 VA * | 3,600 VA * |
| Fluorescent lamps shunt compensated | 1,300 VA (70 µF) | 400 VA (42 µF) | 400 VA (42 µF) | 1,200 VA (120 µF) * | 1,200 VA (120 µF) * |
| Electronic controlgear | 9x7 W, 6x11 W | 9x7 W, 7x11 W, | 9x7 W, 7x11 W, | 34x7 W, 27x11 W, | 34x7 W, 27x11 W, |
| | 5x15 W, 5x20 W | 7x20 W, 7x23 W | 7x20 W, 7x23 W | 24x15 W, 22x23 W | 24x15 W, 22x23 W |
| Inductive load (cos φ = 0.6/230 V AC) | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Contact material | AgSnO2 | AgSnO2 | AgSnO2 | AgSnO2 | AgSnO2 |
| Contact gap | ≥ 3 mm | < 3 mm | < 3 mm | < 3 mm | < 3 mm |
| Mech. serviceable life | > 106 | > 107 | > 107 | > 107 | > 107 |
| Serviceable life at rated load, cos φ =1 | > 105 | > 2x105 | > 2x105 | > 2x105 | >2x105 |
| Serviceable life at rated load, cos φ =0.6 | > 104 | > 4x104 | > 4x104 | > 4x104 | > 4x104 |
| Terminal capacity | 10.7 mm² | 13 mm² | 13 mm² | 13 mm² | 13 mm² |
| Max. conductor capacity | 6 mm² | 4 mm² | 4 mm² | 4 mm² | 4 mm² |
| ON duration | Resettable after 30 sec. | 100 % | 100 % | 100 % | 100 % |
| Ambient temperature | – 10 °C to + 50 °C | – 25 °C to + 50 °C | – 25 °C to + 50 °C | – 25 °C to + 50 °C | – 25 °C to + 50 °C |
| Housing and insulation material | heat resistant, self-extinguishing thermoplast | heat resistant, self-extinguishing thermoplast | heat resistant, self-extinguishing thermoplast | heat resistant, self-extinguishing thermoplast | heat resistant, self-extinguishing thermoplast |
| Control current at 230 V AC | 4.5 mA | 26 mA | 26 mA | 26 mA (min. 8 mA at 8 V AC) | 26 mA (min. 8 mA at 8 V AC) |
| Minimum command duration | 10 ms | 20 ms | 20 ms | 20 ms / 50 ms for multi voltage input | 20 ms / 50 ms for multi voltage input |

* no disconnection advance warning possible for this application.

# E 232 staircase lighting time-delay switches




E 232-230




E 232 E-230N



## E 232 staircase lighting time-delay switches

Staircase lighting time-delay switches are usually operated by pushbuttons, often fitted with a glow lamp. Switches are designed for a glow lamp current of up to 150 mA and thus perfectly suitable for installations in multi-storey buildings.

The E 232-230 staircase lighting time-delay switch includes an electro-mechanical timer with a synchronous motor drive to ensure high operational safety in whatever mounting position. The time range is adjustable in increments of 15 seconds from 1 to seven minutes. Resettable after 30 seconds.

E 232E–230N and E 232E-8/230N devices feature electronic time delays. A high switching capacity,

150 mA glow lamp current parallel to the pushbuttons, steplessly adjustable time range from 0.5 to 20 min, as well as low switching noise make these devices so special.

Devices of the E 232E-230 Multi 10 and E 232E-8/230 Multi 10 series are multi-functional products with 10 functions to choose from that can be adjusted from the front. Through an electronically controlled connection of the load at voltage zero, a very high switching capacity of 3,600 W (load of filament lamp) is reached.

The devices include an integrated warning feature (warning by blinking) according to DIN 18015-2 as well as a 60 minute long-time function.

The E 232E-8/230N and E 232E-8/230 Multi 10 staircase lighting time-delay switches offer an additional metallically separated control input for 8…240 V AC/DC.

| Time range | Power loss | Bbn 4013614 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| 1 … 7 min. | 1 V A | 54824 3 | E 232-230 | 2CDE 110 000 R0501 | | 0.081 | 10 |
| 20 min | 6 V A | 65416 6 | E 232 E-230N | 2CDE 110 003 R0511 | | 0.095 | 10 |
| 20 min | 6 V A | 65417 3 | E 232 E-8/230N | 2CDE 010 003 R0511 | | 0.1 | 10 |
| 20 min | 6 V A | 65418 0 | E 232 E-230 Multi 10 | 2CDE 110 013 R0511 | | 0.095 | 10 |
| 20 min | 6 V A | 65419 7 | E 232 E-8/230 Multi 10 | 2CDE 010 013 R0511 | | 0.1 | 10 |

**Where to find more:**
Technical details for E 232:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166




E 234

## Technical data

| | | | |
|---|---|---|---|
| **Data at Ta = 25 °C and rated values, if nothing else indicated** | | | |
| Type | | CT-D with 1 c/o contact | CT-D with 2 c/o contacts |
| **Input circuit - Supply circuit** | | | |
| Rated control supply voltage US | A1-A2 | 24-240 V AC / 24-48 V DC | |
| | A1-A2 | - | 12-240 V AC/DC (CT-MFD.21) |
| Rated control supply voltage US tolerance | | -15...+10 % | |
| Rated frequency | AC/DC versions | DC or 50/60 Hz | |
| | AC versions | 50/60 Hz | |
| Frequency range | AC/DC versions | DC or 47/63 Hz | |
| | AC versions | 47/63 Hz | |
| Typical power consumption | 24 V DC | 0.6 W | on request |
| | 230 V AC | 1.3 VA | on request |
| | 115 V AC | 1.3 VA | on request |
| Power failure buffering time | | min. 20 ms | min. 30 ms |
| **Input circuit - Control circuit** | | | |
| Voltage-related triggering | Control input, Control function | A1-Y1/B1 | start timing external |
| | Maximum cable length to the control input | | 50 m - 100 pF/m |
| | Minimum control pulse length | | 30 ms |
| | Control voltage potential | | see rated control supply voltage |
| | Current consumption of the control input | | max. 4 mA on request |
| | Parallel load / polarized | | yes / yes |
| **Timing circuit** | | | |
| Time ranges | 7 time ranges 0.05 s - 100 h | | 1.) 0.05-1 s 2.) 0.5-10 s 3.) 5-100 s 4.) 0.5-10 min 5.) 5-100 min 6.) 0.5-10 h 7.) 5-100 h |
| | 4 time ranges 0.05 s - 10 min (CT-SDD, CT-SAD) | | 1.) 0.05-1 s 2.) 0.5-10 s 3.) 5-100 s 4.) 0.5-10 min |
| Recovery time | | | < 50 ms |
| Repeat accuracy (constant parameters) | | | Δt < ±0.5 % |
| Accuracy within the rated control supply voltage tolerance | | | Δt < 0.005 % / V |
| Accuracy within the temperature range | | | Δt < 0.06 % / °C |
| Star-delta transition time | CT-SDD | | fixed 50 ms |
| | CT-SAD | | adjustable: 20-100 ms in steps of 10 ms |
| Star-delta transition time tolerance | CT-SDD, CT-SAD | | ±3 ms |
| Indication of operational states | | | |
| Control supply voltage / timing | U: green LED | | : control supply voltage applied |
| | | | : timing |
| Relay status | R: yellow LED | | : output relay 1 or 2 energized |
| **Output circuit** | | | |
| Kind of output | 15-16/18 | relay, 1 c/o contact | - |
| | 15-16/18; 25-26/28 | - | relay, 2 c/o contacts |
| | 17-18; 17-28 | relay, 2 n/o contacts (CT-SDD, CT-SAD) | |

## Technical data

| | | | |
|---|---|---|---|
| **Data at Ta = 25 °C and rated values, if nothing else indicated** | | | |
| Type | | CT-D with 1 c/o contact | CT-D with 2 c/o contacts |
| Contact material | | Cd-free, see data sheet | |
| Rated operational voltage Ue | | 250 V | |
| Minimum switching voltage / minimum switching current | | 12 V / 100 mA | |
| Maximum switching voltage / maximum switching current | | see load limit curves | |
| Rated operational current Ie (IEC 60947-5-1 ) for category | AC12 (resistive) at 230 V | 6 A | 5 A |
| | AC15 (inductive) at 230 V | 3 A | 3 A ① |
| | DC12 (resistive) at 24 V | 6 A | 5 A |
| | DC13 (inductive) at 24 V | 2 A | 3 A ① |
| Mechanical lifetime | | 30 x 106 switching cycles | |
| Electrical lifetime | at AC12, 230 V, 4 A | 0.1 x 106 switching cycles | |
| Short-circuit proof / maximum fuse rating (IEC/EN 60947-5-1) | n/c contact | 6 A fast-acting | |
| | n/o contact | 10 A fast-acting | |
| **General data** | | | |
| Duty time | | 100% | |
| Dimensions (W x H x D) | | 17.5 mm x 70 mm x 58 mm | 17.5 mm x 80 mm x 58 mm |
| | | (0.69 x 2.76 x 2.28 inches) | (0.69 x 3.15 x 2.28 inches) |
| Weight | | see ordering details | |
| Mounting | | DIN rail (EN 60715), snap-mounting without any tool | |
| Mounting position | | any | |
| Minimum distance to other units horizontal / vertical | | no / no | |
| Degree of protection enclosure / terminals | | IP50 / IP20 | |
| **Electrical connection** | | | |
| Wire size | fine-strand | with wire end ferrule | 2 x 0.5-1.5 mm² (2 x 20-16 AWG)<br>1 x 0.5-2.5 mm² (1 x 20-14 AWG) |
| | | without wire end ferrule | 2 x 0.5-1.5 mm² (2 x 20-16 AWG)<br>1 x 0.5-2.5 mm² (1 x 20-14 AWG) |
| | rigid | | 2 x 0.5-1.5 mm² (2 x 20-16 AWG)<br>1 x 0.5-4 mm² (1 x 20-12 AWG) |
| Stripping length | | 7 mm (0.28 inches) | |
| Tightening torque | | 0.5-0.8 Nm | |
| **Environmental data** | | | |
| Ambient temperature range | operation | -20 ... +60 °C | |
| | storage | -40 ... +85 °C | |
| Damp heat (cyclic) (IEC/EN 60068-2-30) | | 6 x 24 h cycles, 55 °C, 95 % RH | |
| Vibration (sinusoidal) (IEC/EN 60068-2-6) | | 40 m/s2, 20 cycles, 10....150...10 Hz | |
| Shock (half-sine) (IEC/EN 60068-2-27) | | 100 m/s2, 11 ms | |

① CT-MFD.2x on request

## Technical data

| Data at Ta = 25 °C and rated values, if nothing else indicated | | | |
|---|---|---|---|
| Type | | CT-D with 1 c/o contact | CT-D with 2 c/o contacts |
| **Isolation data** | | | |
| Rated impulse withstand voltage Uimp between all isolated circuits (VDE 0110, IEC/EN 60664-1) | | | 4 kV; 1.2/50 µs |
| Pollution category (IEC/EN 60664-1, VDE 0110, UL 508) | | 3 | |
| Overvoltage category (IEC/EN 60664-1, VDE 0110, UL 508) | | III | |
| Rated insulation voltage Ui | input circuit / output circuit | 300 V | |
| | output circuit 1 / output circuit 2 | 300 V | |
| Basic insulation (IEC/EN 61140) input circuit / output circuit | | 300 V | |
| Protective separation (VDE 0106 part 101 and part 101/A1; IEC/EN 61140) | input circuit / output circuit | 250 V | |
| Test voltage between all isolated circuits (type test) | | 2.5 kV, 50 Hz, 1 s | |
| **Standards** | | | |
| Product standard | | IEC 61812-1, EN 61812-1 + A11, DIN VDE 0435 part 2021 | |
| Low Voltage Directive | | 2006/95/EC | |
| EMC Directive | | 2004/108/EC | |
| RoHS Directive | | 2002/95/EC | |
| **Electromagnetic compatibility** | | | |
| Interference immunity | | IEC/EN 61000-6-1, IEC/EN 61000-6-2 | |
| electrostatic discharge (ESD) | IEC/EN 61000-4-2 | Level 3 (6 kV / 8 kV) | |
| electromagnetic field (HF radiation resistance) | IEC/EN 61000-4-3 | Level 3 (10 V/m) | |
| fast transients (Burst) | IEC/EN 61000-4-4 | Level 3 (2 kV / 5 kHz) | |
| powerful impulses (Surge) | IEC/EN 61000-4-5 | Level 4 (2 kV L-L) | |
| HF line emission | IEC/EN 61000-4-6 | Level 3 (10 V) | |
| Interference emission | | IEC/EN 61000-6-3, IEC/EN 61000-6-4 | |
| electromagnetic field (HF radiation resistance) | IEC/CISPR 22, EN 55022 | B | |
| HF line emission | IEC/CISPR 22, EN 55022 | B | |

# Control and automation
## E 234 electronic timers




E 234 CT-MFD




E 234 CT-ERD



### Description

The CT-D range in MDRC design with a width of only 17.5 mm fits into all domestic installation and distribution panels.
The CT-D range represents a link between industry and the installation types. For maximum flexibility in operation, 10 single-function as well as 2 multifunction devices with 7 timing functions are available. The devices offer 4 or 7 time ranges from 0.05 seconds up to 100 hours. Their wide input range allows the use in applications worldwide.

| Timing function | Rated control supply voltage | Time ranges | Control input | Out-put | Bbn<br>EAN | Type | Order code | Price 1 piece | Weight 1 piece<br>kg (lb) |
|---|---|---|---|---|---|---|---|---|---|
| Multifunc-tional[1)] | 24-240 V AC<br>24-48 V DC | 7 (0.05 s - 100 h) | ■ | 1 c/o | | CT-MFD.12 | 1SVR500020R0000 | | 0.060<br>(0.132) |
| Multifunc-tional[1)] | 12-240<br>V AC/DC | 7 (0.05 s - 100 h) | ■ | 2 c/o | | CT-MFD.21 | 1SVR500020R1100 | | 0.065<br>(0.143) |
| ON-delay | 24-240 V AC<br>24-48 V DC | 7 (0.05 s - 100 h) | - | 1 c/o | | CT-ERD.12 | 1SVR500100R0000 | | 0.060<br>(0.132) |
| | | | - | 1 c/o | | CT-ERD.22 | 1SVR500100R0100 | | 0.065<br>(0.143) |
| OFF-delay | | | ■ | 1 c/o | | CT-AHD.12 | 1SVR500110R0000 | | 0.060<br>(0.132) |
| | | | ■ | 2 c/o | | CT-AHD.22 | 1SVR500110R0100 | | 0.065<br>(0.143) |
| Impulse-ON | | | - | 1 c/o | | CT-VWD.12 | 1SVR500130R0000 | | 0.060<br>(0.132) |
| Flasher starting with ON | | | - | | | CT-EBD.12 | 1SVR500150R0000 | | |
| Pulse generator | | 2×7 (0.05 s - 100 h) | ■ | | | CT-TGD.122) | 1SVR500160R0000 | | 0.060<br>(0.132) |
| | | | ■ | 2 c/o | | CT-TGD.222) | 1SVR500160R0100 | | 0.065<br>(0.143) |
| Star-delta change-over | | 4 (0.05 s - 10 min) | - | 2 c/o | | CT-SDD.223) | 1SVR500211R0100 | | 0.065<br>(0.143) |
| | | | - | | | CT-SAD.224) | 1SVR500210R0100 | | |

1) Functions: ON-delay, OFF-delay with auxiliary voltage, Impulse-ON, Impulse-OFF with auxiliary voltage, Flasher starting with ON, Flasher starting with OFF, Pulse former
2) ON and OFF times adjustable independently: 2 x 7 time ranges 0.05 s - 100 h
3) Transition time 50 ms fixed
4) Transition time adjustable

■ Control input with voltage-related triggering
- no triggering

| | |
|---|---|
| ⊠ | ON-delay |
| ■ | OFF-delay |
| 1⊓⊠ | Impulse-ON |
| 1⊓■ | Impulse-OFF |
| ⊓⊠ | Flasher starting with ON |
| ⊓■ | Flasher staring with OFF |
| 1⊓ | Pulse former |
| ⊠⊓ | Pulse generator |
| ◬ | Star-delta change-over |

### Synonyms

| used expression | alternative expression(s) | used expression | alternative expression(s) |
|---|---|---|---|
| 1 c/o contact | SPDT | voltage-related | wet / non-floating |
| 2 c/o contacts | DPDT | volt-free | dry / floating |

**Where to find more:**
Technical details for E 234:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

# Control and automation
## T Line twilight switches




**T1**

**Technical features**

| | | T1 | T1 PLUS |
|---|---|---|---|
| Rated supply voltage | [V] | 110 ÷ 230 AC | |
| Contact type | | 1NO | |
| Switching capacity | | | |
| resistive load cosφ 1 | [A] | 16 | |
| inductive load cosφ 0.6 | [A] | 3 | |
| incandescent lamps | cosφ 1 | max 3600 W | |
| fluorescent lamps | cosφ0.8 | max 3600 W | |
| fluorescent - duo./electronic lamps | cosφ0.9 | max 300 W | |
| Rated frequency | [Hz] | 50-60 | |
| Switching delay | | | |
| ON | [s] | 30 ±10% | 15...120 ±10% |
| OFF | [s] | 40 ±10% | 15...120 ±10% |
| Brightness range | [lx] | 2:200 | 2:40<br>20:200<br>200:2000<br>2000:15000 |
| Protection degree | | | |
| twilight switch | | IP20 | IP20 |
| sensor | | IP65 | IP65 |
| Operating temperature | | | |
| twilight switch | [°C] | -25...+55 | |
| sensor | [°C] | -40...+70 | |
| Storage temperature | | | |
| twilight switch | [°C] | -40...+70 | |
| sensor | [°C] | -50...+80 | |
| Power consumption | [VA] | 4.5 | |
| Max. commutable power | [W] | 3500 | |
| Max. terminal cross-section | [mm²] | 2.5 | |
| Terminals | | loss-proof screw | |
| Tightening torque terminals | [Nm] | 0.5 | |
| Tightening torque sensor screw | [Nm] | 0.4 | |
| Mounting | | on DIN rail | |
| Switching status indication/brightness range | | red Led / green Led | |
| Max wiring length | [m] | 100 | |
| Modules | | 1 | |
| Reference standards | | EN 60669-1; EN 60669-2-1; EN 60730-1 | |



**Where to find more:**
Technical details for T Line:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

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# Control and automation
## T Line twilight switches




T1




T1 PLUS




LS-D

### T Line modular twilight switches

These twilight switches allow to switch ON and switch OFF lighting devices according to a scheduled level of the ambient light. They are used in combination with an external sensor to detect if the ambient light is higher or lower than the set level . A switching delay prevents them from operating unnecessarily when the light intensity suddenly changes (e.g. lightning, moving vehicles, etc.). The T1 twilight switch in 1 channel is preset a 10 LUX from factory and is equipped with 2 signalling LEDs that indicate the setpoint value and display the status of the contact . The operating instructions are printed on the side of the product. T1 PLUS switches feature a setpoint that can be adjusted for 4 different scale values (2:40, 20:200, 200:2000, 2000:15000).This makes them ideal for daytime applications  where the Lux values are very high. With a 10 lux preset factory setting, they are equipped with 2 signalling LEDs that indicate the setpoint value and display the status of the contact.

| Brightness range | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| lx | EAN | Type code | Order code | | kg | pc. |
| 2 : 200 | 955634 | T1 | 2CSM295563R1341 | | 0.076 | 1 |
| 2 : 15000 | 957935 | T1 PLUS | 2CSM295793R1341 | | 0.078 | 1 |

### Accessories for T Line modular twilight switches

The external sensor is supplied in the same package of the switch, but it's also available separately as spare part. The upper part of the external case (with screw locking), made up of thermoplastic material, bears up against ultraviolet rays to guarantee an homogeneous diffusion of the daylight internally. LS-D is also equipped with a cable gland.

| | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| External sensor | 957232 | LS-D | 2CSM295723R1341 | | 0.069 | 1 |

**Where to find more:**
Technical details for T Line:
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# Control and automation
## T1 POLE twilight switches




**T1 POLE**

| Technical features | | |
|---|---|---|
| | | T1 POLE |
| Rated supply voltage | [V] | 110 ÷ 230 AC |
| Contact type | | 1NO polarized |
| Switching capacity | | |
| resistive load cosφ 1 | [A] | 16 |
| inductive load cosφ 0.6 | [A] | 3 |
| incandescent lamps | cosφ 1 | max 3600 W |
| fluorescent lamps | cosφ 0.8 | max 3600 W |
| fluorescent - duo./electronic lamps | cosφ 0.9 | max 300 W |
| Rated frequency | [Hz] | 50-60 |
| Switching delay | | |
| ON | [s] | 30 ± 10% |
| OFF | [s] | 40 ± 10% |
| Brightness range | [lx] | 2:200 |
| Protection degree | | IP65 |
| Operating temperature | [°C] | -40...+70 |
| Storage temperature | [°C] | -50...+80 |
| Power consumption | [VA] | 4.5 |
| Max. commutable power | [W] | 3500 |
| Max. terminal cross-section | [mm²] | 2.5 |
| Terminals | | loss-proof screw |
| Tightening torque | [Nm] | 0.4 |
| Mounting | | pole/wall |
| Switching status indication/ | | |
| brightness range | | - / red Led |
| Reference standards | | EN 60669-1; EN 60669-2-1; EN 60730-1 |

### T1 pole mounting twilight switch

The T1 POLE version is designed for installation on the pole/wall, with photocell inputs and integrated cabling including cable gland seals to ensure a high degree of protection. Thanks also to the high quality, T1 POLE provides excellent resistance to atmospheric agents and a long service life. T1 POLE is also equipped internally with a preset sensor of 10 Lux. The sensor is extractable from the base and allows an easy and efficient maintenance without needing further wiring. T1 POLE is the ideal solution to management the external light systems such as the public ones, more precisely, in cases where there is a need of having to control the lighting of public or private roads, gardens, courtyards to the decline of solar radiation during precisely the twilight.

| Brightness range | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| lx | EAN | Type code | Order code | | kg | pc. |
| 2 : 200 | 957539 | T1 POLE | 2CSM295753R1341 | | 0.140 | 1 |

**Where to find more:**
Technical details for T1 POLE:
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# Control and automation
## TWA twilight switches




**TWA**

### Technical features

| | | TWA-1 | TWA-2 |
|---|---|---|---|
| Rated supply voltage | [V] | 230 ±15% AC | |
| Contact type | | 1NO/NC | 2 NO/NC |
| Switching capacity | | | |
| resistive load | [A] | 16 | |
| inductive load cosφ 0.6 | [A] | 10 | |
| Max. number of lamps | | | |
| incandescent and halogen lamps | [W] | 2300 | |
| compensated (max. 45 µF) | [W] | 400 | |
| non compensated, series compensated | [W] | 1000 | |
| compact fluorescent | [W] | 500 | |
| Rated frequency | [Hz] | 50-60 | |
| Programs ON-OFF | | 56 | |
| Accuracy | | ±1.5 sec/24h | |
| Time base | | quartz | |
| Minimum switch between two steps | [min] | 1 | |
| Running reserve | [year] | 5 | |
| Astronomical time accuracy | [min] | ±10 | |
| Protection degree | | IP20 | |
| Operating temperature | [°C] | -10...+55 | |
| Storage temperature | [°C] | -20...+60 | |
| Power consumption | [VA] | 6 | |
| Max. commutable power | [W] | 4000 | |
| Min./Max. terminal cross-section | | | |
| flexible | [$mm^2$] | 1 to 6 | |
| rigid | [$mm^2$] | 1.5 to 10 | |
| Terminals | | loss-proof screw | |
| Tightening torque | [$mm^2$] | 1.2 | |
| Mounting | | on DIN rail | |
| Modules | | 2 | |
| Reference standards | | EN 60730-1<br>EN 60730-2-7 | |




TWA-1

## TWA twilight astronomical switches

The twilight astronomical switches TWA-1 and TWA-2, respectively, in 1 and 2 channels, they automatically control lighting circuits depending on the time of sunrise and sunset , greatly increasing energy efficiency.

The programming is in fact based on a mathematical algorithm able to calculate the time of the rising and setting of the sun in a certain location for each day of the year. Once powered the device, simply insert date, time, geographical coordinates and time zone because it is ready to work. The installation of these devices is particularly useful when using a twilight switch with external sensor is not recommended because it may be subject to malfunctions caused by air pollution, excessive brightness or vandalism. TWA-1 and TWA-2 are also indicated for the control of public lighting, shop windows of shops, neon signs, monuments, facades and illuminated fountains.

| Brightness range<br>lx | Bbn 8012542<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| 1NO/NC | 043652 | TWA-1 | 2CSM204365R1341 | | 0. 160 | 1 |
| 2NO/NC | 043751 | TWA-2 | 2CSM295723R1341 | | 0. 160 | 1 |



**Where to find more:**
Technical details for TWA:
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# Control and automation
## THS modular thermostats




THS

**Technical features**

| | | THS-C | THS-W | THS-S |
|---|---|---|---|---|
| Rated voltage | [V] | 230 AC | | |
| Type of contact | | 1 NO/NC | | 2NO |
| Contact capacity | | | | |
| ohmic load | [A] | 16 | | |
| inductive load cosφ 0.6 | [A] | 3 | | |
| Frequency | [Hz] | 50-60 | | |
| Number of temperature set-points | | 1 continuously adjustable | | 2 continuously adjustable |
| Adjustment range | [°C} | -20...+40 | 0...+60 | 0...+10 / +20...+60 |
| Max switching power | [W] | 3500 | | |
| Differential | [°C] | fixed Δt = 1 | | fixed Δt = 2 |
| Thermal gradient | | 1 °K / 15 minutes | | |
| Type of operation | | ON / OFF fixed differential | | |
| Max cable section at terminals | [mm²] | 2.5 | | |
| Protection degree | | IP20 | | |
| Relay ON/OFF indication | | LED indicator | | |
| Temperature tolerance | [°C] | ±1 | | |
| T limits in operation | [°C] | 0 ÷ +50 | | 0 ÷ +70 |
| Storage temperature | [°C] | -10...+65 | | -10...+70 |
| Type of installation | | DIN rail | | |
| Case / color | | thermoplastic / grey RAL 7035 | | |
| Power consumption | [VA] | 3 | | |
| Terminals | | Loss-proof screw | | |
| Max. terminal cross-section | [mm²] | 2.5 | | |
| Tightening torque | [Nm] | 0.5 | | |
| Application type | | services / industrial | | |
| Programming | | graduated scale with mechanical pointer | | |



**Where to find more:**
Controls and indicator technical details for THS: Chapter 7 of Solutions for electrical distribution in buildings - technical details

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THS-C




THS-S

## THS modular thermostats

The THS series modular thermostats are suited for a wide array of refrigeration and heating applications. The THS-C and THS-W models, both with a potential-free switching contact, are ideal for controlling temperature in heating systems, industrial settings or difficult-to-access locations, as well as for temperature regulation in refrigeration systems, refrigerated counters, greenhouses, dryers, etc....

The THS-S model, with two independent potential-free contacts, allows regulation of cooling between +20 and +60 °C and anti-condensation between 0 and +10 °C. The THS-S thermostat is supplied with remote sensor and is ideal for temperature control of electrical cabinets.

| Temperature | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| °C | EAN | Type code | Order code | | kg | pc. |
| -20…+40 | 511632 | THS-C | 2CSM251163R1380 | | 0.20 | 1 |
| 0…+60 | 070832 | THS-W | 2CSM207083R1380 | | 0.20 | 1 |
| *+20…+60 / 0…+10 | 368038 | THS-S | 2CSM236803R1380 | | 0.17 | 1 |

* cooling / anticondensation

## Temperature sensors for THS-C and THS-W thermostats

The remote sensors (supplied separately) are used in conjunction with the THS-C and THS-W series thermostats to detect temperature overshoot or undershoot from the programmed set-point. The THS-1 and THS-4 models work in a temperature range between -30 °C and +130 °C and are respectively 1.5 and 4 meters long.

| Lenght | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| m | EAN | Type code | Order code | | kg | pc. |
| 1.5 | 020332 | THS-1 | 2CSM202033R1380 | | 0.05 | 1 |
| 4 | 776031 | THS-4 | 2CSM277603R1380 | | 0.12 | 1 |

# Control and automation
## ATT GSM modules




**ATT GSM**

| Technical characteristics | | | | | | |
|---|---|---|---|---|---|---|
| GSM module | | | Quad band GSM / GPRS / EDGE communication with manual / automatic selection on bands 850 / 900 / 1800 / 1900 MHz for data, sms and voice applications. | | | |
| Output power | | | Class 4 ( 2W for GSM850 and EGSM900 )<br>Class 1 ( 1W for DCS1800 and PCS1850 ) | | | |
| Commands sent by | | | SMS, call rings, extended SMS, DTMF tones, (GSM / GPRS / EDGE connection) | | | |
| Incoming alarms | | | SMS, call rings, e-mail | | | |
| Inputs | digital | | input voltage 3...9 V d.c., 5 mA @ 5 V,<br>output voltage 3.3 V d.c. | | | |
| | analog | | Select input mode by means of the dipswitch. NTC temperature sensor can be directly connected to the analog inputs (range -10 °C...60 °C). | | | |
| | | | | Mode 1 | Mode 2 | Mode 3 | Mode 4 |
| | | | Input range | 0...20 mA | 0...10 V | 0...2 V | 0...2V |
| | | | Voltage drop | 2 V @ 20 mA | | | |
| | | | Resolution | 0.02 mA | 0.01 V | 0.02 V | 0.1 °C |
| | | | Accurancy | ±1% | ±1% | ±1% | ±1 °C |
| | | | Impedance | 100 Ω | 25 Ω | 5 Ω | NTC:<br>10 Ω<br>@ 25 °C |
| Outputs | relay | | NO 3 A 250 V a.c. - max 750 VA | | | | |
| | minimum load | | 1 mA, 5 V d.c. | | | | |
| Power supply | | [V] | 12-24 V a.c./d.c. | | | | |
| Power consumption | when transmitting | [W] | 5 | | | | |
| | in stand-by | [W] | 0.2 | | | | |
| Terminal section | | | 2.5 $mm^2$ | | | | |
| Temperature | ambient | [°C] | -30...60 | | | | |
| | storage | [°C] | -40...85 | | | | |
| Relative humidity | ambient | | 5...95% non condensing | | | | |
| | storage | | 5...95% only external condensation | | | | |
| Modules | | | 4 | | | | |
| Protection degree | | | IP40 | | | | |

**Where to find more:**
Technical details for ATT GSM:
Chapter 7 of
Solutions for electrical distribution in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download center




ATT-22

## ATT GSM modules

The ATT modules are GSM telephone actuators for remotely controlling electrical loads over the mobile phone network, which answer the installation requirements of a variety of application settings. In particular, the ATT-42 version consists of a control module with 2 relay outputs, 2 digital programmable inputs and 2 digital counter inputs for residential, services-sector and industrial installations. The ATT-122 alarm module, with 2 analogue inputs, 8 digital programmable inputs, 2 digital counter inputs and 2 relay outputs, is suitable for status and alarm monitoring in industrial and services-sector installations. Instructions and alarms can be sent via SMS message, free phone call ring or e-mail according to need. Configuration can be accomplished by SMS messages or using the ATT-Tool22 software. All the ATT modules are supplied with backup lithium battery, ATT-Tool programming software and PC connecting cable. In addition, the range is equipped with an external antenna – essential if the module is installed in locations that do not assure adequate GSM coverage, such as cellars, enclosed metal structures, etc.
The modules can be supplied with an ABB type TS 25/12-24 C modular transformer and are compatible with the GSM SIM cards of all mobile telephone operators.

| Inputs | Outputs | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 analog and 2 digital | 2 NO | 178521 | ATT-42 | 2CSM217852R1371 | | 0.200 | 1 |
| 2 analog and 8 digital and 2 digital/counter | 2 NO | 349327 | ATT-122 | 2CSM234932R1371 | | 0.200 | 1 |

## Accessories

| | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 178422 | Cable ATT USB/RJ45 | 2CSM217842R1371 | | 0.05 | 1 |
| | 945109 | Optional battery for ATT | 2CSM100100R1371 | | 0.05 | 1 |
| | 750321 | Esternal antenna | 2CSM275232R1371 | | 0.05 | 1 |

# Control and automation
## CL logic relays, display system




CL

### Technical Data overview

| Logic relays |
|---|
| 8 or 12 digital inputs |
| 4 or 6 digital relay outputs |
| optionally with 4 or 8 transistor outputs |
| 128 rungs |
| 3 contacts as n/o or n/c contacts in series plus 1 coil per rung |
| optionally with 2 or 4 analog inputs (not 100-240 V AC version) |
| power flow display for checking the circuit diagram (devices with display) |
| expansions for local or remote level |
| enclosure color RAL 7035 |
| DIN rail mounting |

| Display system |
|---|
| useable as compact HMI logic relay |
| fully graphic, backlit display module |
| 12 digital inputs |
| 4 digital relay outputs |
| optionally with 4 transistor outputs |
| 265 rungs |
| 4 contacts as n/o or n/c contacts in series plus 1 coil per rung |
| optionally with 4 analog inputs (not 100-240 V AC version) |
| networking-compatible via CL-NET |
| front panel mounting |
| expansion for local |

| Remote display |
|---|
| Remote display up to a distance of 5 m |
| Illustration of text and status displays |
| Remote adjustment via keypad |
| Front panel mounting |

| Software |
|---|
| 16 timing relays 0.01-99:59 h |
| 16 counting relays for up-, down counting |
| 8 weekly timer, 8 annual timers |
| 16 analog value comparators |
| 16 freely editable text display |
| 32 markers or auxiliary relays |

### Further Documentation

(download from the internet: www.abb.com/lowvoltage > Control Products > Electronic Relays and Controls)

**Technical catalogue**

Electronic Products and Relays 2CDC 110 004 C0205

**Manuals**

| | |
|---|---|
| Logic relay manual | 1SVC 440 795 M0100 |
| Remote display manual | 1SVC 440 795 M2100 |
| Display system manual | 1SVC 440 795 M1100 |




CL-LSR




CL-LST

## CL concept

CL range logic relays are suitable for small and medium-sized control tasks and are able to substitute logic wiring in a quick and simple manner. They can be used for applications in control as well as for timing functions, e.g.

- in buildings, lighting systems, air-conditioning systems, general control functions,
- in small machines and systems or
- as stand-alone control module for small applications.

Steps to the application of CL range

- CL range can be used easily, rapidly and comfortably without any time-consuming planning and programming.
- The user can discover the advantages and the benefit of these logic relays in no time at all.
- CL range provides for the control statements according to a simple circuit diagram.
- Setup, storage, simulation and documentation are performed using the compact and user-friendly CL-SOFT software (CL-LAS.PS002).

Software characteristics (CL-SOFT)

- display on a PC monitor according to IEC, ANSI
- up to 10 languages to choose from
- easy installation on all Microsoft WindowsTM operating systems



## Logic relays

**Logic relays – 8 inputs, 4 relay outputs**

| Rated operational voltage | Display + Keypad | Timer | Expandable | Bbn EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 24 V AC | ■ | ■ | | | CL-LSR.C12AC1 | 1SVR 440 712 R0300 | | 0.20/0.44 | 1 |
| 24 V AC | | ■ | | | CL-LSR.CX12AC1 | 1SVR 440 712 R0200 | | 0.20/0.44 | 1 |
| 100-240 V AC | ■ | | | | CL-LSR.12AC2 | 1SVR 440 713 R0100 | | 0.20/0.44 | 1 |
| 100-240 V AC | ■ | ■ | | | CL-LSR.C12AC2 | 1SVR 440 713 R0300 | | 0.20/0.44 | 1 |
| 100-240 V AC | | ■ | | | CL-LSR.CX12AC2 | 1SVR 440 713 R0200 | | 0.20/0.44 | 1 |
| 12 V DC | ■ | ■ | | | CL-LSR.C12DC1 | 1SVR 440 710 R0300 | | 0.20/0.44 | 1 |
| 12 V DC | | ■ | | | CL-LSR.CX12DC1 | 1SVR 440 710 R0200 | | 0.20/0.44 | 1 |
| 24 V DC | ■ | | | | CL-LSR.12DC2 | 1SVR 440 711 R0100 | | 0.20/0.44 | 1 |
| 24 V DC | ■ | ■ | | | CL-LSR.C12DC2 | 1SVR 440 711 R0300 | | 0.20/0.44 | 1 |
| 24 V DC | | ■ | | | CL-LSR.CX12DC2 | 1SVR 440 711 R0200 | | 0.20/0.44 | 1 |

**Logic relays – 8 inputs, 4 transistor outputs**

| Rated operational voltage | Display + Keypad | Timer | Expandable | Bbn EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 24 V DC | ■ | ■ | | | CL-LST.C12DC2 | 1SVR 440 711 R1300 | | 0.20/0.44 | 1 |
| 24 V DC | | ■ | | | CL-LST.CX12DC2 | 1SVR 440 711 R1200 | | 0.20/0.44 | 1 |

# Control and automation
## CL logic relays, display system


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CL-LMR


2CDC311035F0b06

CL-LMT


2CDC311037F0b06

CL-LER


2CDC311038F0b06

CL-LEC

**Logic relays – 12 inputs, 6 relay outputs**

| Rated operational voltage | Display + Key-pad | Timer | Expandable | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | | EAN | Type code | Order code | | kg | pc. |
| 24 V AC | ■ | ■ | ■ | | CL-LMR.C18AC1 | 1SVR 440 722 R0300 | | 0.36/0.79 | 1 |
| 24 V AC | | ■ | ■ | | CL-LMR.CX18AC1 | 1SVR 440 722 R0200 | | 0.36/0.79 | 1 |
| 100-240 V AC | ■ | ■ | ■ | | CL-LMR.C18AC2 | 1SVR 440 723 R0300 | | 0.36/0.79 | 1 |
| 100-240 V AC | | ■ | ■ | | CL-LMR.CX18AC2 | 1SVR 440 723 R0200 | | 0.36/0.79 | 1 |
| 12 V DC | ■ | ■ | ■ | | CL-LMR.C18DC1 | 1SVR 440 720 R0300 | | 0.36/0.79 | 1 |
| 12 V DC | | ■ | ■ | | CL-LMR.CX18DC1 | 1SVR 440 720 R0200 | | 0.36/0.79 | 1 |
| 24 V DC | ■ | ■ | ■ | | CL-LMR.C18DC2 | 1SVR 440 721 R0300 | | 0.36/0.79 | 1 |
| 24 V DC | | ■ | ■ | | CL-LMR.CX18DC2 | 1SVR 440 721 R0200 | | 0.36/0.79 | 1 |

**Logic relays – 12 inputs, 8 transistor outputs**

| Rated operational voltage | Display + Key-pad | Timer | Expandable | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | | EAN | Type code | Order code | | kg | pc. |
| 24 V DC | ■ | ■ | ■ | | CL-LMT.C20DC2 | 1SVR 440 721 R1300 | | 0.36/0.79 | 1 |
| 24 V DC | | ■ | ■ | | CL-LMT.CX20DC2 | 1SVR 440 721 R1200 | | 0.36/0.79 | 1 |

**Expansion – 2 relays outputs**

| Rated operational voltage | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| - | | CL-LER.20 | 1SVR 440 709 R5000 | | 0.07/0.15 | 1 |

**Expansions – 12 inputs, 6 relay outputs**

| Rated operational voltage | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 100-240 V AC | | CL-LER.18AC2 | 1SVR 440 723 R0000 | | 0.26/0.57 | 1 |
| 24 V DC | | CL-LER.18DC2 | 1SVR 440 721 R0000 | | 0.22/0.49 | 1 |

**Expansion - 12 inputs, 8 transistor outputs**

| Rated operational voltage | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 24 V DC | | CL-LET.20DC2 | 1SVR 440 721 R1000 | | 0.21/0.46 | 1 |

**Coupler unit for remote expansion with a distance of up to 30 m**

| Rated operational voltage | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| - | | CL-LEC.CI000 | 1SVR 440 709 R0000 | | 0.07/0.15 | 1 |




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CL-LAS.PS002




2CDC311013F0b07

CL-LAS.MD003



2CDC311014F0b07

CL-LAS.TK001



2CDC311031F0b07

CL-LAS.TK011

## Accessories for logic relays

**Software CL-SOFT for programming and control of CL range devices**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Installation CD-ROM for Microsoft Windows™ | | CL-LAS.PS002 | 1SVR 440 799 R8000 | | 0.10/0.21 | |

**Memory module for logic relays**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Memory size: 32 kB | | CL-LAS.MD003 | 1SVR 440 799 R7000 | | 0.02/0.04 | 1 |

**Connecting cable with serial interface to connect PC and logic relay**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Length: 2 m | | CL-LAS.TK001 | 1SVR 440 799 R6000 | | 0.10/0.22 | 1 |

**Connecting cable with USB interface to connect PC and logic relay**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Length: | | CL-LAS.TK002 | 1SVR 440 799 R6100 | | | 1 |

**Connecting cable for point-to-point connection of remote-display connection module and logic relay**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Length: 5 m, adaptable | | CL-LAD.TK007 | 1SVR 440 899 R6600 | | 0.20/0.44 | 1 |

**Fixing brackets for screw mounting of logic relay, expansion, display base module**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| content: 9 fixing brackets | | CL-LAS.FD001 | 1SVR 440 799 R5000 | | 0.01/0.01 | 1 |

**Connecting plug CL-LINK for connection of logic relay to expansion**

| Description | Bbn / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| CL-LINK | | CL-LAS.TK011 | 1SVR 440 799 R5100 | | 0.10/0.22 | 1 |


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CL-LAS.SD..

**Input-/ output simulator with wall power supply, fits to CL-LSR and CL-LST**

| Rated input voltage | Rated output voltage/current | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 100-240 V AC | 24 V DC | | CL-LAS.TD001 | 1SVR 440 793 R0000 | | 0.19/0.43 | 1 |

**Primary switch mode power supplies**

| Rated input voltage | Rated output voltage/current | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 100-240 V AC | 24 V DC / 0.35 A<br>12 V DC / 20 mA | | CL-LAS.SD001 | 1SVR 440 703 R0000 | | 0.10/0.22 | 1 |
| 100-240 V AC | 24 V DC / 1.25 A | | CL-LAS.SD002 | 1SVR 440 713 R0000 | | 0.20/0.44 | 1 |


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CL-LDC.S..

**Remote display connection modules to displace the display from the logic relay, incl. connecting cable CL-LAD.TK007, 5 m, length adaptable**

| Rated operational voltage | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 24 V DC | | CL-LDC.SDC2 | 1SVR 440 841 R0000 | | 0.16/0.36 | 1 |
| 100-240 V AC | | CL-LDC.SAC2 | 1SVR 440 843 R0000 | | 0.16/0.36 | 1 |



## Display system



2CDC311028F0b06

CL-LDD.K

**Grafic Display modules 132 x 64 pixel**

| Description | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| without keyboard | | CL-LDD.XK | 1SVR 440 839 R4500 | | 0.14/0.30 | 1 |
| with keyboard | | CL-LDD.K | 1SVR 440 839 R4400 | | 0.13/0.29 | 1 |

**Display base modules - CPU / power supply**

| Rated operational voltage | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 24 V DC | | CL-LDC.LDC2 | 1SVR 440 821 R0000 | | 0.16/0.36 | 1 |
| 100-240 V AC | | CL-LDC.LAC2 | 1SVR 440 823 R0000 | | 0.16/0.36 | 1 |


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CL-LDC.LN..

**Display base modules - CPU / power supply, networking-compatible (CL-NET)**

| Rated operational voltage | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 24 V DC | | CL-LDC.LNDC2 | 1SVR 440 821 R1000 | | 0.17/0.38 | 1 |
| 100-240 V AC | | CL-LDC.LNAC2 | 1SVR 440 823 R1000 | | 0.17/0.38 | 1 |

**Display I/O modules - 8 inputs, 4 relay outputs**

| Rated operational voltage | Bbn / EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 100-240 V AC | | CL-LDR.16AC2 | 1SVR 440 853 R0000 | | 0.17/0.38 | 1 |
| 24 V DC | | CL-LDR.16DC2 | 1SVR 440 851 R0000 | | 0.17/0.38 | 1 |



2CDC311032F0b06

CL-LDR

| Display I/O modules - 8 inputs, 4 relay outputs, 1 analog output | | | | | | |
|---|---|---|---|---|---|---|
| Rated operational voltage | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| 24 V DC | | CL-LDR.17DC2 | 1SVR 440 851 R2000 | | 0.17/0.38 | 1 |

| Display I/O module - 8 inputs, 4 transistor outputs | | | | | | |
|---|---|---|---|---|---|---|
| Rated operational voltage | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| 24 V DC | | CL-LDT.16DC2 | 1SVR 440 851 R1000 | | 0.14/0.30 | 1 |

| Display I/O module - 8 inputs, 4 transistor outputs, 1 analog output | | | | | | |
|---|---|---|---|---|---|---|
| Rated operational voltage | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| 24 V DC | | CL-LDT.17DC2 | 1SVR 440 851 R3000 | | 0.14/0.30 | 1 |




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CL-LAD.MD004



2CDC311021F0b07

CL-LAD.TK009

## Accessories for display system

| Memory module for display base modules | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Memory size: 256 kB | | CL-LAD.MD004 | 1SVR 440 899 R7000 | | 0.02/0.03 | 1 |

| Connecting cable with serial interface to connect PC and display base module | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Length: 2 m | | CL-LAD.TK001 | 1SVR 440 899 R6000 | | 0.11/0.23 | 1 |

| Connecting cable with USB interface to connect PC and display base module | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Length: | | CL-LAD.TK011 | 1SVR 440 899 R6700 | | | 1 |

| Network cable (CL-NET) to connect 2 display base modules | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Length: 0.3 m | | CL-LAD.TK002 | 1SVR 440 899 R6100 | | 0.05/0.12 | 1 |
| Length: 0.8 m | | CL-LAD.TK003 | 1SVR 440 899 R6200 | | 0.07/0.14 | 1 |
| Length: 1.5 m | | CL-LAD.TK004 | 1SVR 440 899 R6300 | | 0.08/0.18 | 1 |

| Connecting cable for point-to-point connection of remote display connection modules and display base module | | | | | | |
|---|---|---|---|---|---|---|
| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
| Length: 5 m, adaptable | | CL-LAD.TK005 | 1SVR 440 899 R6400 | | 0.20/0.44 | 1 |

**Connecting cable for point-to-point connection of 2 display base modules, length adaptable**

| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price<br>1 piece | Weight<br>1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Length: 5 m | | CL-LAD.TK006 | 1SVR 440 899 R6500 | | 0.12/0.26 | 1 |

**Termination resistor**

| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price<br>1 piece | Weight<br>1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| content: 2 pieces | | CL-LAD.TK009 | 1SVR 440 899 R6900 | | 0.01/0.02 | 1 |

**Protective covers, transparent**

| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price<br>1 piece | Weight<br>1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| for harsh environmental conditions and application in the food industry | | CL-LAD.FD001 | 1SVR 440 899 R1000 | | 0.03/0.07 | 1 |
| sealable | | CL-LAD.FD011 | 1SVR 440 899 R2000 | | 0.03/0.07 | 1 |

**Assembly tool for mounting of display modules**

| Description | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price<br>1 piece | Weight<br>1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| - | | CL-LAD.FD002 | 1SVR 440 899 R3000 | | | 1 |

# Control and automation
## E 450 priority switches




E 450

| Technical characteristics | | |
|---|---|---|
| | E 451-5.7 | E 452-5.7 |
| Operating coil | | |
| Range of rated current equivalent to | 6.7 … 39 A<br>correlates<br>1.5 … 9 kW at 230 V, 4.6 … 27 kW at 230/400 V | |
| Threshold current | 3.1 … 5.3 A | |
| OFF delay (max.) | 0 main half waves | 2 main half waves |
| Max. continuous current | 43 A | |
| Therm. continuous capacity at 40 °C/104 °F | 5 W | |
| Contact assembly | | |
| Control contact | 1 NC contact | |
| Rated contact current at 250 V | 1 A | |
| Contact material | solid silver | |
| Max. switching voltage | 400 V | |
| Max. switching capacity | 230 VA | |
| Max. switched current | 1 A | |
| Max. inrush current peak | 5 A | |
| Electr. service life | > $10^5$ operations | |
| Mechanical service life | app. 2 x $10^6$ operations | |
| Max. electrical switching rate | app. 1800 operations/hour | |
| ON duration | 100 % | |
| Ambient temperature | – 20 °C/– 4 °F to + 40 °C/104 °F | |
| Response time | 10 … 20 ms | |
| Release time | 5 … 20 ms | ≥ 20 ms |
| Test voltage contact/coil | 2.5 kV | |
| Clearance and creepage distance | C/250 V AC cording to IEC 669-1-23 | |
| Degree of protection | IP 40 | |
| Protection against electric shock | according to DIN VDE 0106 Part 100 (BGV A2) | |
| Terminal contact | series coil up to 16 $mm^2$, control contact up to 2.5 $mm^2$ | |

### E 450 priority switches

The priority switch is used in wiring systems where existing lead cross sections or the size of the power supply service box do not allow for simultaneous operation of two powerful loads (e.g. storage heating and flow-type heater).
The priority switch disconnects the long-term load (storage heating) for as long as the short-term consumer (flow-type heater) is switched on.
The coil of the priority switch is connected in series to the short-term load. When this load is switched on, the NC contact of the priority switch disconnects e.g. the heating system contactor.

**For pneumatically controlled flow-type heaters**

| Rated current range | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| 6,7 ... 39 A | 2.4 | 41590 3 | E 451- 5.7 A | 2CDE160000R0901 | | 0.1 | 10 |

**For electronically controlled flow-type heaters**

| Rated current range | Power loss | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| 6.7 ... 39 A | 2.4 | 20950 2 | E 452-5.7 A | 2CDE160010R0901 | | 0.1 | 10 |

# Control and automation
## RAL overload relays




RAL

| Technical characteristics | | | |
|---|---|---|---|
| | | RAL3 | RAL6 |
| Rated voltage Un | [V] | a.c. 230 | |
| Rated current In | [A] | 18.3 | 27.5 |
| Rated contact capacity In | [A] | 12 cosφ=1; 4 cosφ=0.8 | |
| Rated frequency | [Hz] | 50 | |
| Adjustment ranges | [A] | 0 ...18.3 | 0...27.5 |
| Power consumption | [W] | 10 | |
| Modules | [No.] | 2 | |
| Intervention delay | | instantaneous | |

### RAL overload relays

Installed downstream of the main circuit-breaker in a single-phase system, they constantly compare the actual power consumption to the preset threshold. An acoustic alarm alerts that some appliances must be switched off to avoid tripping the main circuit-breaker whenever the preset threshold is exceeded. The device calibration is 3 kW.
RAL built in relay output contact allows the following functions to be implemented:
a) remote signalling (acoustic or lighting)
b) opening a divisional circuit-breaker to disable a non essential electrical appliance.
Function b) allows one or more appliances to be automatically switched off in order to keep the power consumption within the preset limit and avoid unwanted tripping of the current-limiting device installed outside the home (e.g. in the basement). RAL must be reset manually.

| Adjustable range | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| kW | EAN | Type code | Order code | | kg | pc. |
| 0/3 | 400509 | RAL 3 | 2CSM111200R1301 | | 0.200 | 1 |
| 0/6 | 400608 | RAL 6 | 2CSM121200R1301 | | 0.200 | 1 |

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**Where to find more:**
Load release technical details for RAL: Chapter 7 of Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MDRCs p.15/166

# Control and automation
## LSS1/2 load shedding switch



LSS1/2

| Technical characteristics | | | |
|---|---|---|---|
| Rated voltage Un | | [V] | a.c. 230 |
| Rated capacity In | | [A] | 90 |
| Rated contact capacity In | | [A] | 16 each |
| NPL1 and NPL2 | | | (terminals 12 and 14) |
| Rated frequency | | [Hz] | 50/60 |
| Regulating thresholds | | [A] | 5...30 |
| | | | 10...60 |
| | | | 15...90 |
| Load reinsertion delay | | | 5-7 min. (NPL1); 4-5, 50 min. (NPL2) |
| Load disinsertion delay | | | about 2 sec. |
| Indicators | | | 1 green LED = supply voltage available |
| | | | 2 red LEDs = loads switched off |
| Load OFF remote signalling | | [A] | 1 (terminals 11 and 13) |
| Terminals | Primary load | | 35 mm$^2$ |
| | Non prioritary loads | | 10 mm$^2$ |
| Power consumption | | [W] | 5 |
| Modules | | [No.] | 5 |

7

### LSS1/2 load shedding switch

Installed downstream of the main circuit-breaker, it compares the actual power consumption of the system to a preset maximum permitted value, and prevents tripping of the main circuit-breaker by sequentially switching off a maximum of two non-prioritary loads (NPL1 and NPL2) when the preset threshold is exceeded. A green LED indicates the presence of the supply voltage, and two red LEDs indicate the load OFF conditions. At preset time intervals, the device automatically attempts to reconnect the previously disabled loads.
Note: In unbalanced threephase systems same function of LSS1/2 can be implemented via DMTME multimeters. Digital outputs of the multimeter can be set to trip with an user defined delay to switch off - by means of external contactors - non prioritary loads of arbitrary consumption. See for details in Chapter 7 of Solutions for electrical distribution in buildings - Technical details.

| | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 274407 | LSS1/2 | 2CSM112500R1311 | | 0.400 | 1 |

**Where to find more:**
Load release technical details for LSS1/2: Chapter 7 of Solutions for electrical distribution in buildings - technical details

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# Control and automation
## E 235 mains disconnection relays




E 235

| Technical features | | |
|---|---|---|
| Short circuit rupturing capacity | | 16 A/230 V a.c. |
| Rated frequency | | 50/60 Hz |
| Range of control voltage | | 0.9 to 1.1 Un |
| Load of filament lamps | | 2300 W |
| Fluorescent lamp load: | | |
| | twin lamp circuit | 100 W |
| | shunt compensated | 56 W |
| | electronic ballast | max. 36 W, dependent on manufacturer |
| Induce load | | 6 A cosφ = 0.6 |
| Max. switching capacity (cosφ 0.5) | | 3500 VA |
| Intrinsic consumption ca. | | 1 W |
| Control voltage | | 5 V a.c. |
| Adjustable making capacity | | 2 - 15 VA |
| Breaking capacity | | 0.66 x making capacity |
| ON delay | | 50 ms |
| OFF delay | | ca. 3 sec. |
| Contact assembly | | 1 NO contact |
| Service life at rated load | | > 100000 switching cycles |
| Ambient temperature | | - 10 °C/14 °F to +45 °C/113 °F |
| Connection capacity (clamping terminal) | | max 2.5 $mm^2$ |




E 235-NFS




E 235-GLE

## E 235 Mains disconnection relay

### Application and method of operation

According to building biologists, electrical interference fields emitted from live cables can impair well-being when the human organism is exposed to them for longer periods, e.g. in the bedroom. The E 235 demand switch automatically cuts off the mains voltage of an electric circuit when the last consumer in that circuit has been switched off. When the first consumer is switched on, the device switches the mains voltage back on with almost no delay. A low voltage of approx. 3 V is used to monitor whether consumers are switched on. As alternating voltage is used for this, it is virtually certain that even small consumer units with a capacitor and transformer power pack - e.g. charging stations for rechargeable devices, standard lamps, etc. - will be reliably detected and switched. Interference fields emitted by the monitoring voltage are so small that they cannot be registered. The mains is switched on when the consumer load exceeds the making capacity set in the demand switch. It is cut off when the consumer load falls to 2/3 of the set making capacity. The ON state is indicated by the integrated LED. You can choose between „Automatic monitoring“ and „Permanent ON“ using a rotary switch on the E 235.

### Accessories

The E 235-GLA base load adapter is also available, and is used for switching the demand switch on manually. The adapter is plugged into a socket that is monitored by the demand switch. The toggle switch switches the base load, which is used to switch on the demand switch.

Some consumers require an initial voltage equal to the mains voltage in order to be switched on. These include brightness controllers, and fluorescent and energy-saving lamps. The PTC base load element E 235-GLE and base load adapter E 235-GLA are available for ensuring reliable switch-on of the mains field relay. The indicator light on the adapter displays the switched on mains voltage, irrespective of the position of the toggle switch. It tells you whether the mains voltage has been cut off or whether other consumers are still switched on. If you wish to connect a dimmer to the output of the demand switch, this must feature an additional switching contact. A base load element is also switched in parallel.

| Description | Bbn 4016779<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| mains disconnection relay | 571821 | E 235-NFS | 2CDE110000R1701 | | 0.065 | 1 |
| base load element | 571814 | E 235-GLE | 2CDE100500R1711 | | 0.001 | 1 |
| base load adapter | 571869 | E 235-GLA | 2CDE100510R1711 | | 0.070 | 1 |

# Control and automation
## LEE 230 extractable power failure signalling lamp




LEE-230

| Technical characteristics | | |
|---|---|---|
| 2P 10 A plug | | distance between pins 19 mm, pin ø 4 mm |
| Supply | [V] | 230 a.c., 50-60 Hz |
| Recharge time | [h] | 24 |
| Endurance | [h] | 3 |
| Lighting level | [mcd] | 3000 |
| Operating temperature | [°C] | 0...+45 |
| Min. life cycle | | 5 years (battery |

### Additional technical features

LEE-230 lamp automatically switches on when the voltage fails; the built-in rechargeable battery guarantees the supply.

It is particularly useful thanks to its construction and functional characteristics:

- it can be extracted from the socket and used as a torch with ON-OFF button on its frontal side
- when necessary it can work with standard sockets
- it can be moved when it is needed
- it has a long operation endurance, up to three hours
- it is ready to use, it does not require installation
- with a screw (ø 3.5 mm, L 16 mm) it is possible to fix it preventing the extraction from the M1173 ABB sockets with central hole
- the projecting part of the Schuko profile is very small (8 mm).

The two LEDs placed on the frontal side of the lamp indicate its operation condition:

- the red LED indicates the recharge activity and that, in the case of a network voltage back-out, the lamp will remain off
- the green LED indicates the recharge activity and that, in the case of a network voltage black-out, the lamp will switch on (it will automatically switch off when the voltage returns).

By pushing the frontal pushbutton it is possible to change the status; if you do not use the lamp for a prolonged time it is suggested to set the first condition in order to preserve the battery life.

### LEE 230 extractable power failure signalling lamp

The LEE 230 lamp is an automatic electronic lamp that can be installed in any modular socket or wiring accessory socket conforming to the German VDE Schuko standard (e.g. ABB M1173 or M1175), to the Italian standard P11 10A, or to the 10/16 A italian dual standard.
The device functions both as a power failure signalling lamp and as a lighting device, to be used for example during maintenance activities or when seeking faults in the panel.

| Pack | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| Blister | 507406 | LEE-230 | 2CSM111000R1361 | | 0.100 | 1 |

**Where to find more:**
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# Control and automation
# USB Modular DIN rail device




MeMo4




MeMo4

## USB Modular DIN rail device

Function: Modular DIN rail device to store electronic information, files and applications. All the data required will be available in the switchboard. No supply is required.

**ATTENTION!**

MeMo4 is available with USB port (USB cable not included).

| Description | Storage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| Modular data memory | 4 GB | 144656 | MeMo4 | 2CSS200960R0002 | | 0.200 | 1 |

# Solutions for electrical distribution in buildings
## Energy efficency

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# M2M. The measure of efficiency
## Measurement and advanced analysis of electrical parameters

Easy fixing system with clips which ensure the device is held reliably on the front-panel.

Multi-voltage auxiliary power supply range, from 24 V DC to 230 V AC

Real time display of energy consumption also in Euros and kg $CO_2$




Multilingual backlit display with two lines of scrolling text to guide and help the user in reading data and programming.

Communication without limits thanks to the availability of different protocols for any types of network

Reduced depth: only 57 mm inside the panel.

Intuitive and easy-to-use front keypad for navigating in the menu and configuring the device.




The fixing system allows the device to be installed safely and reliably on the panel, not only upon installation but also during the working period when the unit is subject to vibrations and temperature fluctuations.



The removable terminals, accessible from three sides, along with wiring parallel to the panel guarantee ease of installation. The screw fastenings of the amperometric measurement circuits offer reliability and precision. The network analyser performs constant verification of correct wiring thanks to its autodiagnostic function, signalling any operating errors.




With the M2M analyser it is possible to keep the electrical consumption of all types of system under control, measuring them in real time both in economic and environmental impact terms, thanks to the immediate conversion into Euros and $CO_2$ kg.






All the information gathered by the M2M analyzer can be transmitted quickly to remote locations through specific communication interfaces – RS485, RJ45 - with the support of numerous protocols including Modbus RTU, Modbus TCP/IP and Profibus DP.
Interaction with the control and supervision systems is possible via digital inputs and digital, relay or analogue outputs, all programmable.



The reduced depth of only 57 mm inside the panel makes the analyser ideal for installation even in switchboard with reduced space. At only 96 mm x 96 mm x 77 mm it still contains everything necessary to measure power quality parameters in real time.




Advanced functionalities to optimise consumptions like monitoring of absorbed power by measuring maximum demand to avoid paying penalties to the electricity distributor, bidirectional reading to display the amount of produced and consumed energy and verification of energy quality through THD measurement.

# Energy efficiency
## DMTME, M2M and ANR selection table

| | Modular and front panel multimeters | | | Front panel network analysers | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | **DMTME** | **DMTME-72** | **DMTME-96** | **M2M** | **ANR96** |
| Overall dimensions | 6 DIN modules | 72x72x90 | 96x96x103 | 96x96x77 | 96x96x130 |
| Display | LED | | | LCD backlit | LCD graphic backlit |
| Power supply | 110 V a.c. 230 V a.c. | 230 V a.c. 400 V a.c. | 110 V a.c. 230 V a.c. | 24-240 V a.c./d.c. | 20-60 V a.c./d.c. |
| TRMS voltage | **Electrical parameters measurement** | | | | |
| TRMS current | | | | | |
| Frequency | | | | | |
| Power factor | | | | | |
| Cosφ | | | | | |
| Active power | | | | | |
| Reactive power | | | | | |
| Apparent power | | | | | |
| Active energy | | | | | |
| Reactive energy | | | | | |
| Apparent energy | | | | | |
| Peak value Min/Max/Avg | | | | | |
| Timer and count-down | | | | | |
| Power 4Q | | | | **Power quality** | |
| Energy 4Q | | | | | |
| Current THD | | | | | |
| Voltage THD | | | | | |
| Password set up | | | | | |
| Neutral current | | | | | |
| Tariff | | | | | **Energy management** |
| Maximum demand | | | | | |
| Harmonic analysis up to 31° | | | | | |
| Wave form visualisation | | | | | |
| Memory 1 MB | | | | | |
| Outputs | **Digital** | | | **Digital Electromechanical relays Analogue** | **Digital** |
| Inputs | | | | **Digital** | |
| Serial port | **RS485** | | | **RS485 RJ45** | **RS485 RS232 RJ45** |
| Protocols | **Modbus RTU** | | | **Modbus RTU Ethernet TCP/IP Profibus DP** | |

# Energy efficiency
## M2M network analyser



M2M

| Technical features | | |
|---|---|---|
| **Auxiliary power supply** | | |
| Voltage range | [V] | From 24 to 240 V AC/DC<br>From 48 to 240 V AC/DC M2M I/O<br>From 24 to 240 V DC and from 48 to 240 V AC M2M ETHERNET, M2M PROFIBUS |
| Frequency range | [Hz] | 45 - 65 |
| Protection fuse | | T 0.5 A from 24 V to 100 V<br>T 0.25 A from 100 V to 240 V |
| Power consumption | [VA] | 7 max |
| Measurement type | | Sampling TRMS |
| **Measurement accuracy** | | |
| Voltage | | ±0.5% F.S. ±1 digit |
| Current | | ±0.5% F.S. ±1 digit |
| Frequency | | 40.0 - 99.9 Hz: ± 0,2% ± 0,1<br>100 - 500 Hz: ± 0.2% ± 1 |
| Power factor | | ± 1% ± 1 digit (from cosφ= 0.3 Inductive to cosφ = 0.3 Capacitive) |
| Active power | | ± 1% ± 0.1% F.S (from cosφ= 0.3 Inductive to cosφ = 0.3 Capacitive) |
| Active energy | | Class 1 |
| **Measurement range** | | |
| Voltage | [V] | From 10 to 500 V AC phase to neutral; From 17 to 865 V AC phase to phase. No decimal places. |
| Current | | From 50 mA to 5 A TRMS 2 decimal places displayed |
| Frequency | [Hz] | From 40 to 500<br>1 decimal place displayed up to 99,9 and in integers above 100 |
| Power factor | | 2 decimal places displayed |
| **Installation** | | |
| Distribution networks | | Low and medium voltage<br>Low voltage M2M LV, M2M LV MODBUS<br>Single-phase connection<br>Three-phase with neutral - Three-phase without neutral |
| Current inputs | [A] | Always use external CT<br>Primary from 1 to 10,000 A AC approx.<br>Secondary 5 A and 1 A AC approx.<br>N.B.: in case of CT secondary at 1 A the accuracy class is reduced to 2.5% F.S. ±1 digit, in the range 5-100% F.S. |
| Voltage inputs | [V] | Direct insertion up to 500 AC approx.<br>Indirect insertion with VT:<br>Primary from 60 to 60,000 V AC approx - secondary from 60 to 190 V AC<br>N.B.: In case of VT secondary at less than 100 V the accuracy class is reduced to 2.5% F.S. ±1 digit, in the range 5-100% F.S. |
| Protection fuse for voltage inputs | [A] | 0.1 |
| **Data update frequency** | | 2 times/second |

**Where to find more:**
Technical details for M2M:
Chapter 8 of
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# Energy efficiency
## M2M network analyser

| | | |
|---|---|---|
| **Harmonic distortion count** | [Hz] | Band measurement up to 500 |
| **Energy measurement** | | |
| Single-phase maximum value counted | | 10 GWh / GVarh / GVAh |
| Three-phase maximum value counted | | 30 GWh / GVarh / GVAh |
| Energy balance maximum value counted | | 10 GWh / GVarh / GVAh with sign |
| Input pulses maximum energy value counted | | 40 GWh / GVarh |
| **Terminal characteristics** | | |
| Current inputs | | Cross section 6 $mm^2$ - Step 6.35 mm |
| Voltage inputs | | Cross section 2.5 $mm^2$ - Step 7.62 mm |
| Impulsive outputs | | Cross section 2.5 $mm^2$ - Step 5.08 mm |
| RS485 Serial port | | Cross section 2.5 $mm^2$ - Step 5.08 mm |
| Relay outputs | | Cross section 2.5 $mm^2$ - Step 5.08 mm |
| **Overall dimensions** | | 96 mm x 96 mm x 77 mm (Depth inside switchboard: 57 mm) |
| **Weight** | [Kg] | 0.400 max |
| **Standards** | | |
| Overall dimensions | | IEC 61554 |
| Protection degree | | IEC 60529 |
| Accuracy class | | IEC 60688, IEC 61326-1, IEC 62053-21 , IEC 62053-23, IEC 62053-31. |
| Electrical safety | | IEC 61010-1 |
| **User interface** | | |
| Display | | Scrolling text in user-selectable language |
| Display type | | LCD with backlighting which can be set by user |
| Display dimensions | [mm] | 72x57 |
| **Communication interface** | | |
| RS485 (M2M MODBUS, M2M LV MODBUS, M2M ALARM, M2M I/O) | | |
| - Protocol | | Modbus RTU |
| - Electrical standard | | RS485 with optical isolation |
| - Baud rate | | 4.8, 9.6, 19.2 kbps |
| - Parity number | | Odd, Even, None |
| - Stop bit | | 1, 2 |
| - Address | | 1-247 |
| - Connectors | | 4-pole terminal (integrated 120 Ohm termination) |
| Profibus (M2M PROFIBUS) | | |
| - Protocol | | Profibus with slave DP-V0 function in compliance with IEC 61158 regulations |
| - Electrical standard | | RS485 with optical isolation |
| - Baud rate | | Automatic detection [9.6 - 12 Mbps] |
| - LED indicators | | Green for communication status and Red for communication error |
| - Address | | 0-126 |
| - Connectors | | DB 9 female connector (do not use connectors with 90° cable outlet) |
| Ethernet (M2M ETHERNET) | | |
| - Protocol | | Modbus TCP/IP |
| - Connectors | | RJ45 |



**Where to find more:**
Technical details for M2M:
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| | | |
|---|---|---|
| **Digital output programmed as pulse** | | |
| Contact supply external voltage | [V] | 48 max (peak AC/DC) |
| Maximum current | [mA] | 100 (peak AC/DC) |
| Pulse duration | [ms] | 50 OFF (min) / 50 ON closed contact |
| Pulse frequency | | 10 pulses/s (max) |
| **Digital output programmed as alarm** | | |
| Contact supply external voltage | [V] | 48 max (peak AC/DC) |
| Maximum current | [mA] | 100 (peak AC/DC) |
| Alarm activation delay | [s] | 1 - 900 s (programmable) |
| Alarm return hysteresis | | 0 - 40% (programmable) |
| **Relay output (M2M ALARM)** | | |
| Normal current | [A] | 16 AC1 - 3 AC15 |
| Max. instantaneous current | [A] | 30 |
| Nominal voltage | [V] | 250 V AC |
| Max. instantaneous voltage | [V] | 400 V AC |
| Nominal load | [VA] | 4000 AC1 - 750 AC15 |
| **Analogue output (M2M I/O)** | | |
| Programmable electrical parameters | | Span [0 - 20 mA or 4 - 20 mA] |
| Load | | Typical 250 Ohm, max 600 Ohm |
| **Digital intputs (M2M I/O)** | | |
| Nominal voltage | [V] | 24 V DC (absorption = 13 mA) |
| Maximum voltage | [V] | 32 V DC (absorption = 22 mA) |
| Max. voltage for OFF status | [V] | 8 V DC |
| Min. voltage for ON status | [V] | 18 V DC |
| **Hour counters** | | |
| Countdown timer | | Countdown of system operating time with the activation of a programmable threshold on total current.<br>Upon expiry of the maintenance period set an icon will appear on the display. |
| Count-up timer | | Operational time of device |
| **Climatic conditions** | | |
| Storage | [°C] | from -10 to +60 |
| Operation | [°C] | from -5 to +55 |
| Relative humidity | | Max 93% (non-condensing) at 40°C |
| **Protection degree** | | |
| Frontal | | IP54 |
| At terminals | | IP25 |

# Energy efficiency
# M2M network analyser



M2M

The new M2M network analyser has advanced analysis functions which allow effective measurement of the main single-phase or three-phase electrical parameters: voltage, current, frequency, power factor, active and reactive power, active and reactive energy.
Fitted to low- and medium-voltage electrical panels (except for LV versions, suitable only for low voltage applications), the new analyser allows the measurement and analysis in real time of electrical parameters, also verifying the quality of the energy thanks to THD measurement.

M2M keeps the system's consumption under control, giving figures in $CO_2$ kg and Euros to ensure more efficient and rational use of energy. Bidirectional metering of energy and power on the 4 quadrants allows both production and consumption of energy to be monitored with a single device.
Aside from optimising the use of loads, real time measurement contributes to containing both environmental and budgetary impact.
All information gathered by the analyser can be transmitted quickly to remote locations through specific communication interfaces (RS485, RJ45), with the support of numerous protocols including Modbus RTU, Modbus TCP/IP and Profibus DP.

For interaction with control and supervision systems are available digital pulse outputs to remotely control active and reactive energy consumption, digital outputs programmable as threshold alarms with activation delay and return hysteresis, relay outputs with nominal current up to 16 A, and analogue outputs with programmable span (0 - 20 mA or 4 - 20 mA) for remoting status and events. Digital inputs allow pulse acquisition from other energy counters or users.

| Communication protocol and interface | 2 relay outputs | 3 digital inputs, 2 analogue outputs | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| | | | 998839 | M2M | 2CSG299883R4052 | | 0.300 | 1 |
| Modbus RTU RS485 | | | 998938 | M2M MODBUS | 2CSG299893R4052 | | 0.350 | 1 |
| Ethernet RJ45 | | | 999034 | M2M ETHERNET | 2CSG299903R4052 | | 0.400 | 1 |
| Profibus RS485 | | | 999133 | M2M PROFIBUS | 2CSG299913R4052 | | 0.400 | 1 |
| Modbus RTU RS485 | ■ | | 999232 | M2M ALARM | 2CSG299923R4052 | | 0.400 | 1 |
| Modbus RTU RS485 | | ■ | 999331 | M2M I/O | 2CSG299933R4052 | | 0.400 | 1 |
| | | | 999430 | M2M LV | 2CSG299943R4052 | | 0.300 | 1 |
| Modbus RTU RS485 | | | 969921 | M2M LV MODBUS | 2CSG296992R4052 | | 0.350 | 1 |

8

**Where to find more:**
Technical details for M2M:
Chapter 8 of
Solutions for electrical distribution in buildings - technical details

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# Energy efficiency
## ANR network analyser




ANR

| Technical features | | | |
|---|---|---|---|
| **Dimensions** | | | |
| Overall dimensions | [mm] | 96 x 96 x 130 | IEC 61554 |
| Max cable section | [mm$^2$] | 2.5 | |
| Protection degree | | IP52 on front - IP20 on terminal | EN 60529 |
| Weight | [g] | 430 | |
| **Display** | | | |
| Graphic LCD | | Backlit 128 x 128 pixel graphic LCD display | |
| Display dimensions | [mm] | ANR96: 50 x 50 | |
| **Voltage (TRMS)** | | | |
| Direct measurement | [V] | 10-600 Vrms between phase-phase. | |
| Ratio transformer range kVT | [V] | 0.01 - 5,000.00 | |
| Max over voltage | [V] | 750, beyond this value must use VT | |
| Consumption | [VA] | 0.2 | |
| Input resistor | [MW] | >2 | |
| **Current (TRMS). always use external CT .../5A** | | | |
| 3 isolated inputs | [A] | 0.01 - 5 | |
| Min current value | [mA] | 10 | |
| Consumption | [VA] | 0.2 | |
| Max over current | [A] | 10 (100 A for 1 second) | |
| Ratio transformer range kCT | | 0.01 - 5,000.00 | |
| **THD** | | | |
| Voltage and current | | Up to 31st harmonic | |
| **Frequency** | | | |
| Range | [Hz] | 30 - 500 | |
| **Accuracy class** | | | |
| Current | [%] | <0.5 | |
| Voltage | [%] | <0.5 | |
| Power | [%] | <1 | |
| Power factor | [%] | <1 | |
| Active energy | [%] | <1 | IEC 62052-11<br>IEC 62053-11 |
| Reactive energy | [%] | 2 | IEC 62053-23 |
| **Auxiliary supply** | | | |
| ANR96-230, ANR96P-230, ANR96LAN-230, ANR96PRF-230, ANR96-230 02 | [V] | 85 ÷265 a.c./d.c. | |
| ANR96-24, ANR96P-24, ANR96LAN-230, ANR96PRF-230, ANR96-230 02 | [V] | 20 ÷ 60 a.c./d.c. | |
| Internal fuse | | 5x20 mm 315 mA 250 V Fast | |
| Frequency | [Hz] | 50-60 | |
| **Operating environment** | | | |
| Operating temperature | [°C] | -10 ÷ +50 | |
| Storage temperature | [°C] | -15 ÷ +70 | |
| Operating humidity | [°C] | 90% without condensation | |
| **Insulation** | | | |
| Voltage insulation | | 3,700 V a.c. rms for 1 minute | |
| **Remote coomunication** | | | |
| RS485, RJ45 | | | |
| Baud rate | [bps] | 1,200 - 19,200 | |
| Protocols | | Modbus RTU, ASCII, Modbus TCP/IP, Profibus DP | |

**Where to find more:**
Technical details for ANR:
Chapter 8 of
Solutions for electrical distribution in buildings - technical details

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# Energy efficiency
## ANR network analyser

| | | | |
|---|---|---|---|
| **Internal memory** | | | |
| For ANR96 | [kbytes] | 128 (usable: 80) | |
| For ANR96P | [Mbytes] | 1 | |
| Memory | | Non-volatile data storage using internal battery | |
| Data retention | | 5 years at 25 °C | |
| **Internal clock** | | | |
| RTC clock | | | IEC 61038 |
| Class of accuracy | [ppm] | 5 | |
| **Digital output** | | | |
| Connection area | [mm² ] | 0 ÷ 2.5 | |
| External pulse voltage | [V] | 12 ÷ 230 V a.c./d.c. | |
| Max current | [mA] | 150 | |
| **Digital input** | | | |
| Voltage | [V] | 12 - 24 d.c. | |



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ANR96

## ANR Network analyser

In highly demanding applications, where the need is to monitor not only the electrical parameters of the network, but also the network quality, ABB has in its range of front-panel devices the ANR network analysers - measuring instruments that permit advanced analysis of single- and three-phase electrical distribution networks.
In particular, the ANR devices are able to measure and also record network parameters and alarms, associating them to a time-stamp for the retrieval of load profiles and exact time and date of occurrence of pre-programmed events; it finally allows routing data towards supervision and monitoring systems.

It also works as panel manager thanks to its digital inputs; the latter allows to have in a central unit the information about more devices like breakers, fuses and energy meters which convey to it the information about their status, alarms and energy pulses (whether equipped with output relays).

Available in 96 x 96 mm front-panel format, ANRs are equipped with a backlit graphic LCD display, allowing clear and immediate readings even in unlighted environments.
The ANR analysers measure TRMS current, TRMS voltage, frequency and temperature of the connected phases; they calculate concatenate voltages and three-phase system voltage and current, power factor and cosφ, apparent, active and reactive power, THD total harmonic distortion up to the 31$^{st}$ harmonic, and measure active energy consumed and produced. All codes have built-in communication features allowing remote communication via Modbus RTU, Modbus TCP/IP and Prodfibus DP.



All the parameters can be stored in the 128 kbyte internal memory, expanded to 1 Mbyte in the ANR96P version. All the measures can be stored in the internal memory; the amount of information that can be stored is further specified in the specific manual.

The devices come with the calibration certificate of the specific S/N and a mini-CD containing:
– Instruction manual
– Technical datasheet
– SW-01 software for managing the recorded data: the software can be used as first-hand tool to retrieve and record the measures, to set alarms and to create load profile.
For more detailed information about its features and use, refer to the software's manual.

All ANR versions have 2 programmable digital outputs and RS485/RS232 serial port. ANR96PRF models have built-in Profibus DP protocol. ANR96LAN models have built-in Modbus TCP/IP protocol and RJ45 port. ANR96 02 models have improved 0,2% accuracy class of measures.

| Auxiliary supply V a.c./d.c. | Program. display input | Storage | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 20÷60 | 2 | 128 Kb | 943402 | ANR96-24 | 2CSG113000R4051 | | 0.430 | 1 |
| 85÷265 | 2 | 128 Kb | 943501 | ANR96-230 | 2CSG213000R4051 | | 0.430 | 1 |
| 20÷60 | 4 | 1 Mb | 943600 | ANR96P-24 | 2CSG123000R4051 | | 0.430 | 1 |
| 85÷265 | 4 | 1 Mb | 943709 | ANR96P-230 | 2CSG223000R4051 | | 0.430 | 1 |
| 20÷60 | 2 | 128 kb | 583332 | ANR96PRF-24 | 2CSG258333R4051 | | 0.430 | 1 |
| 85÷265 | 2 | 128 kb | 571537 | ANR96PRF-230 | 2CSG257153R4051 | | 0.430 | 1 |
| 20÷60 | 2 | 128 kb | 772538 | ANR96LAN-24 | 2CSG277253R4051 | | 0.430 | 1 |
| 85÷265 | 2 | 128 kb | 770336 | ANR96LAN-230 | 2CSG277033R4051 | | 0.430 | 1 |
| 20÷60 | 2 | 128 kb | 573838 | ANR96-24 02 | 2CSG257383R4051 | | 0.430 | 1 |
| 85÷265 | 2 | 128 kb | 562030 | ANR96-230 02 | 2CSG256203R4051 | | 0.430 | 1 |

# Energy efficiency
## DMTME multimeters




**DMTME**

| Technical characteristics | | | |
|---|---|---|---|
| Auxiliary supply | [V rms] | 230 +15% - 10%  DMTME, DMTME-72 and DMTME-96 | |
| [V rms] | | 400 +15% - 10%  DMTME-72 | |
| [V rms] | | 115 +15% - 10%  DMTME , DMTME-96 | |
| Frequency | [Hz] | 45…65 | |
| Power consumption | [VA] | <6 | |
| Fuse protection | | T0.1A | |
| **Voltage measuring inputs** | | | |
| Range | [V rms] | From 10 to 500 V AC phase to neutral;<br>From 17 to 865 V AC phase to phase. | |
| Max. non destructive | [V rms] | 550 | |
| Impedance (L-N) | [MΩ] | >8 | |
| **Current measuring inputs (only external CTs .../5 A)** | | | |
| Range | [A rms] | 0.05…5 | |
| Overload | | 1.1 permanent | |
| **Measurement accuracy** | | | |
| Voltage | | ±0.5% F.S. ±1 digit in range | |
| Current | | ±0.5% F.S. ±1 digit in range | |
| Active power | | ±1% ±0.1% F.S. from cosφ = 0.3 to cosφ = -0.3 | |
| Frequency | | ±0.2% ±0.1Hz from 40.0 to 99.9 Hz | |
| | | ±0.2% ±1Hz from 100 to 500 Hz | |
| **Energy metering** | | | |
| Maximum metered value for single phase | | 4,294.9 MWh (MVarh) with KA = KV = 1 | |
| Maximum metered value for three phase | | 4,294.9 MWh (MVarh) with KA = KV = 1 | |
| Accuracy | | Class 1 | |
| Max. power consumption | [VA] | 1.4 for each input (with Imax = 5A rms) | |
| **Digital outputs** | | | |
| Pulse duration | | 50 ms OFF (min)/ 50 ms ON | |
| Vmax on contact | | 48 V (d.c. or a.c. peak) | |
| Wmax dissipation | | 450 mW | |
| Max frequency | | 10 pulses/sec | |
| Imax contact | | 100 mA (d.c. or a.c. peak value) | |
| Insulation | | 750 Vmax | |
| **Programmable parameters** | | | |
| kVT transformer ratio Vprim/Vsec | | 1…500 | |
| kCT transformer ratio Iprim/Isec | | 1…1,250 | |
| Free hour counter | [h] | 0…10,000,000, resettable | |
| Countdown | [h] | 1…32,000 | |
| Operating temperature | [°C] | 0…+50 | |
| Storage temperature | [°C] | -10…+60 | |
| Relative humidity | | 90% max. (non condensing) at 40°C | |
| Overall dimensions | [mm] | 105x90x58 | DMTME |
| | [mm] | 96x96x103 | DMTME-96 |
| | [mm] | 72x72x90 | DMTME-72 |



**Where to find more:**
Technical details for DMTME:
Chapter 8 of
Solutions for electrical distribution in buildings - technical details

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DMTME




DMTME-96




DMTME-72

## DMTME multimeters

The instruments DMTME are digital multimeters that allow the measurement, in TRMS mode, of the principal electrical parameters in three-phase and single-phase 110/230/400 Vac networks, including the max/min/average detection of the main electrical parameters and the active and reactive energy count. The multiple measured variables are displayed locally on four red 7-segment LED displays providing easy readability and simultaneous display of the measures of the electrical parameters of the phases individually and of the whole network.
The instruments DMTME combine, in a single instrument, the functions of multiple devices: voltmeter, ammeter, power factor meter, wattmeter, varmeter, frequency meter, active and reactive energy meters; it allows remarkable financial savings thanks to the reduction of space taken up in the panel and also of time required for cabling, along with the advantage of providing clear readings on a single device.
The DMTME-I-485, DMTME-I-485-96 and DMTME-I-485-72 models are additionally equipped with two digital relays, fully programmable as either pulse outputs for remote metering of energy consumption, or as alarm outputs. The output relay can be set as NO or NC.
There is also an RS485 port for communicating the measured parameters and alarms over Modbus network . Used in addition to a converter of the CUS series, it allows direct connection to a central PC for remote supervision and control of the electrical network.
All versions come complete with Mini CD containing the instruction manual, technical documentation, Modbus communication protocol and the DMTME-SW tool, intended to be a first-hand PC-based application for the remote visualization of the measures.



## DMTME modular multimeters

TRMS measure of VL-L, VL-N, A, W, Var, VA, kWh, kVar, PF in 230/400 V a.c. lines. Indirect connection through CT .../5 A. Auxiliary supply at 110 V a.c. and 230 V a.c.

| Auxiliary supply V a.c. | RS485 serial port | Program. digital output | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 110-230 | - | - | 975700 | DMTME | 2CSM170040R1021 | | 0.450 | 1 |
| 110-230 | ■ | 2 | 975809 | DMTME-I-485 | 2CSM180050R1021 | | 0.450 | 1 |

## DMTME-96 panel multimeters

Auxiliary supply 230 V a.c. and 110 V a.c.

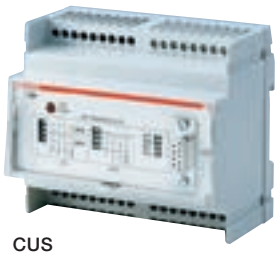
| RS485 serial port | Program. digital output | Dimansions | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| - | - | 96x96 | 046752 | DMTME-96 | 2CSG133030R4022 | | 0.450 | 1 |
| ■ | 2 | 96x96 | 046851 | DMTME-I-485-96 | 2CSG163030R4022 | | 0.450 | 1 |

## DMTME-72 panel multimeters

Auxiliary supply 230 V a.c. and 400 V a.c.

| RS485 serial port | Program. digital output | Dimansions | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| - | - | 72x72 | 046554 | DMTME-72 | 2CSG132030R4022 | | 0.450 | 1 |
| ■ | 2 | 72x72 | 046653 | DMTME-I-485-72 | 2CSG162030R4022 | | 0.450 | 1 |

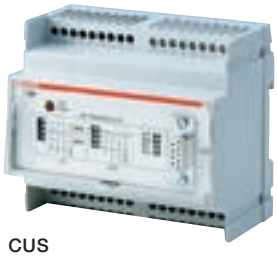
# Energy efficiency
## CUS serial converter




CUS

| Technical features CUS RS485/232 | | |
|---|---|---|
| Supply voltage | [V] | 230 V ac ±20% |
| Frequency | [Hz] | 50-60 |
| Power consumption | [VA] | 7 max |
| Power loss | [W] | 3.5 |
| Fuse | | 500 mA internal |
| Supply terminal dimensions | [mm$^2$] | 2.5 max |
| RS485-422 terminal dimensions | [mm$^2$] | 2.5 max |
| RS232 connection | | Sub-D 9 female poles (DB9) |
| Max RS232 line length | [m] | 15 |
| Max RS485-422 line length | [m] | 1200 |
| Connection of multidrop units | | Max 32 |
| Operating temperature | [°C] | -20...+60 |
| Storage temperature | [°C] | -20...+80 |
| Modules | [No.] | 6 |

| Technical features CUS 485 TCP/IP | | |
|---|---|---|
| Supply voltage | [V] | 220-240 a.c. ±15% |
| Power consumption | [VA] | 4 max |
| Ethernet | | 100 base -T, RJ45 connector, TCP/IP protocol |
| RS485 serial port | | standard, baudrate from 4800 to 19200 bps |
| Display, buttons | | 3 LED (1 green: ON, 1 red: LINK, 1 yellow: DATA) programming button |
| Mechanical features | | protection degree: IP52 front - IP20 case and terminals - weight: 0.40 kg, connections with screw terminal for cable max. 2.5 mm$^2$, self extinguishing plastic case, DIN rail mounting, 3 modules-17,5 mm each |
| Environmental features | | operating temperature: -10 +60 °C, humidity <90% storage temperature: -25 +70 °C |
| Standards | | IEC EN 50081-2 |
| | | IEC EN 50082-1 |
| | | IEC EN 61010-1 |




CUS




CUS 485

## RS485 / RS232 serial converter

The CUS multifunction serial converter has applications in all those situations which require converting or managing EIA -232 (RS-232) , EIA-485 (RS-485) or EIA-422 (RS-422) serial lines. The communication links between devices that use these types of buses (for example PLCs, measurement and control instruments, peripherals and computers running specific software applications, etc.) often call for converting between different serial interfaces, ampliyfing the signal on the line, isolating different parts of the communication network, etc. These diverse application requirements are readily met by the CUS converter, thanks to its configurability and operational flexibility.

The CUS assures galvanically-isolated interface conversion between the RS-232 side, the RS422-485 side and the power supply source.
Its versatility permits following operating modes:
- Full duplex conversion of RS-232 to RS-422
- Half duplex conversion of RS-232 to single-pair RS-485
- Half duplex conversion of RS-232 to two-pair RS-485
- RS-485 repeater (and monitoring function on RS-232)

The principal applications are:
- Multipoint data transmission networks
- Long distance serial links
- Galvanic separation of peripherals
- Extension of RS-485 lines

## CUS 485 TCP/IP converter

The CUS 485 TCP/IP converter allows the conversion of an RS485 serial communication port into a TCP/IP ethernet bus.
The CUS 485 TCP/IP converter acts as a bridge between Modbus/TCP/IP and Modbus/ASCII/RTU.
The serial port is linked to a device using Modbus/ASCII or Modbus/RTU communication or to a network of devices, while the ethernet port is linked to server/PC or PLC systems.
Server commands are sended via ethernet to CUS 485 TCP/IP that convert and send the commands to the slave device.

| Version | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| serial converter - signal repeater | 333807 | CUS | 2CSM200000R1031 | | 0.5 | 1 |
| serial converter - LAN TCP/IP network | 585633 | CUS 485 TCP/IP | 2CSG258563R4051 | | 0.5 | 1 |

# Electricity meters
## The details make the difference

Infrared port for communication between communications adapter and meter

Seals for terminals

DIN-Rail mounted and pro *M* design




Pixel or Segment LCD back-lit display

Configurable for both 3 and 4 wire networks

MID approved and verified

# Energy efficiency
# Selection guide EQ meters

### How do I select the best meter for my application?

There are many versions of EQ meters in order to meet your requests. The EQ program comprises meters with different functionalities such as tariffs, communication interfaces or advanced clock functions. Spend a little time to evaluate the functions and imagine how they could add extra value to your metering. For example, the input counter (from Silver level) on an EQ meter can be used to count products produced by a machine and be read out together with the energy consumption of the same machine. In one easy go you can allocate energy to any produced product from one source. Another useful function is previous values (from Gold level). If you charge users in intervals the meter can secure the data even in the event of a broken communication link. You can collect the correct interval data later and also make it visible for your counterpart immediately on the meters display in case of any discussions.

### Make the meter to an asset.

Take the step from passive meter reading to an active user of the data you can retrieve. The meter can be an important asset for you in order to avoid costs like penalties or extra charge for reactive energy (from Bronze level). Keep track of your maximum demand and reduce them to avoid charges. EQ meters can tell you the value of the maximum/minimum demand and also when it occurred. Harmonics is the source of many problems for all sorts of equipment connected to the low voltage network. Use an EQ meter (Platinum level) to measure the THD and isolate the source before you have to take the cost and consequences of poor power quality.

| Function | Single phase | | | | Three phase | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | C11 | B21 | A41 | A42 | C13 | B23 | B24 | A43 | A44 |
| Direct connected | 1 | 1 2 3 | 1 2 3 4 5 | | 1 | 1 2 3 | | 1 3 5 | |
| Transformer connected | | | | 1 2 3 4 5 | | | 1 2 3 | | 1 2 3 4 5 |
| 2 element metering | | | | | | 1 2 3 | 1 2 3 | 2 3 4 5 | 1 2 3 4 5 |
| 3 element metering | | | | | 1 | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Accuracy 1%, Class 1, Class B | 1 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 | 1 | 2 | 1 2 | 1 2 3 4 5 | 1 2 3 |
| Accuracy 0,5%, Class C | | | | 5 | | | 3 | | 3 4 5 |
| Active energy | 1 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | 1 | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Reactive energy | | 2 3 | 2 3 4 5 | 2 3 4 5 | | 2 3 | 2 3 | 2 3 4 5 | 2 3 4 5 |
| Apparent energy | | 2 3 | 2 3 4 5 | 2 3 4 5 | | 2 3 | 2 3 | 2 3 4 5 | 2 3 4 5 |
| Import/Export energy | | 2 3 | 2 3 4 5 | 2 3 4 5 | | 2 3 | 2 3 | 2 3 4 5 | 2 3 4 5 |
| Tariff registers, 1-4 | | 3 | 3 4 5 | 3 4 5 | | 3 | 3 | 3 4 5 | 3 4 5 |
| Instrument values | 1 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | 1 | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Alarm function | 1 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | 1 | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Harmonics, 2th-16th and THD | | | 5 | 5 | | | | 5 | 5 |
| Previous values - day, week, month | | | 4 5 | 4 5 | | | | 4 5 | 4 5 |
| Max and min demand | | | 4 5 | 4 5 | | | | 4 5 | 4 5 |
| Load profiles - 8 channels | | | 5 | 5 | | | | 5 | 5 |
| Pulse output | 1 | 1 2 | 1 2 | 1 2 | 1 | 1 2 | 1 2 | 1 2 | 1 2 |
| I/O board - 2 in, 2 out | | 3 | 3 4 | 3 4 | | 3 | 3 | 3 4 | 3 4 |
| Configurable I/O - 4 I/O channels | | | 5 | 5 | | | | 5 | 5 |
| Tariffs controlled by input | | 3 | 3 4 5 | 3 4 5 | | 3 | 3 | 3 4 5 | 3 4 5 |
| Tariffs controlled by communication | | 3 | 3 4 5 | 3 4 5 | | 3 | 3 | 3 4 5 | 3 4 5 |
| Tariffs controlled by clock | | | 4 5 | 4 5 | | | | 4 5 | 4 5 |
| MID approved, verified | optional | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | optional | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| IEC approved | 1 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | 1 | 1 2 3 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Communication - Infrared (M-Bus) | | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 | | 1 2 | 1 2 3 | 1 2 3 4 5 | 1 2 3 4 5 |
| Communication - M-Bus | | optional | optional | optional | | optional | optional | optional | optional |
| Communication - RS-485 Modbus | | optional | optional | optional | | optional | optional | optional | optional |
| Communication - RS-485 EQ bus | | optional | optional | optional | | optional | optional | optional | optional |

1 = Steel
2 = Bronze
3 = Silver
4 = Gold
5 = Platinum
☐ = Not available
Optional = Available on some order codes

# Energy efficiency
## Energy meters selection table







| | EQ meters C11 | EQ meters C13 | EQ meters B21 | EQ meters B23 | EQ meters B24 |
|---|---|---|---|---|---|
| Overall dimensions | 1 DIN module | 3 DIN modules | 2 DIN modules | 4 DIN modules | |
| Display | LCD | | Backlit LCD | | |
| Operating voltage | 230 V AC | 3x230/400 V AC | 220...240 V AC | 3x220/380...240/415 V AC | |
| Frequency | 50 / 60 Hz | | | | |
| Max current | 40 A | | 65 A | | 6 A |
| CTVT connected | - | - | - | - | CT |
| Active energy | | | | | |
| Reactive energy | - | - | optional | | |
| Apparent energy | - | - | | | |
| Accuracy | Cl. 1 (B) | | | | Cl. 1 (B), Cl. 0,5 S (C) |
| Up to 4 tariffs | - | - | Energy management (optional) | | |
| Max/min demand | - | - | - | - | - |
| Previous values | - | - | - | - | - |
| Load profiles | - | - | - | - | - |
| Alarm function | | | | | |
| Harmonic analysis | - | - | - | - | - |
| Event log | - | - | | | |
| Alarm function | | | | | |
| Voltage | Instrumentation parameters | | | | |
| Current | | | | | |
| Power factor | | | | | |
| Frequency | - | - | Instrumentation parameters | | |
| Pulse output | | | | | |
| I/O | 1 Output* | | 1 Output or 2 outputs/2 inputs (optional) | | |
| Built-in serial communication | - | - | IR, M-Bus, RS-485 | | |
| Protocols | - | - | M-Bus, Modbus RTU, EQ bus | | |

*) The pulse output can be assigned as an output if it is not used for pulses
**) For 16,7 Hz meters







| | EQ meters A41 | EQ meters A42 | EQ meters A43 | EQ meters A44 | EQ meters G13 |
|---|---|---|---|---|---|
| | 4 DIN modules | | 7 DIN modules | | 4 DIN modules |
| | Backlit Pixel (LCD) | | | | No display |
| | 57.7...288 V AC | 57.7...288 V AC | 3x57.7/100 ... 288/500 | | 100...240 V AC |
| | 50 / 60 Hz | 50 / 60 Hz<br>(or 16,7 / 50 / 60 Hz) | 50 / 60 Hz | | |
| | 80 A | 6 A | 80 A | 6 A | - |
| | - | CTVT | - | CTVT | - |
| | | | | | - |
| | optional | | | | - |
| | | | | | - |
| | Cl. 1 (B) | Cl. 1 (B), Cl. 0,5 S (C) | Cl. 1 (B) | Cl.1 (B), Cl. 0,5 S (C) | - |
| | Energy management (optional) | | | | - |
| | Energy management (optional) | | | | - |
| | | | | | - |
| | | | | | - |
| | | | | | |
| | Power quality (optional) | | | | - |
| | | | | | - |
| | | | | | - |
| | Instrumentation parameters | | | | - |
| | | | | | - |
| | | | | | - |
| | Instrumentation parameters (optional) | | | | - |
| | | | | | - |
| | 2 outputs/2 inputs (optional), 4 configurable inputs and outputs (optional) | | | | - |
| | IR, M-Bus, RS-485 | | | | IR, RS-485, M-Bus |
| | M-Bus, Modbus, EQ bus | | | | EQ bus, M-Bus, JSON |

# Energy efficiency
## EQ meters A series



A-series

| Technical features | | |
|---|---|---|
| | A41 | |
| **Voltage/current inputs** | | |
| Nominal voltage | 230 V AC | |
| Voltage range | 57.7 - 288 V AC (-20% - +15%) | |
| Power dissipation voltage circuits | 0.8 VA (0.8 W) total at 230 V AC | |
| Power dissipation current circuits | 0.007 VA (0.007 W) at $I_{ref}$ and $I_b$ | |
| Base current $I_b$ | 5 A | |
| Rated current $I_n$ | - | |
| Reference current $I_{ref}$ | 5 A | |
| Transitional current $I_{tr}$ | 0.5 A | |
| Maximum current $I_{max}$ | 80 A | |
| Minimum current $I_{min}$ | 0.25 A | |
| Starting current $I_{st}$ | < 20 mA | |
| Terminal wire area | 1 - 25 $mm^2$ | |
| Recommended tightening torque | 2 Nm | |
| **Communication** | | |
| Terminal wire area | 0.5 - 1 $mm^2$ | |
| Recommended tightening torque | 0.25 Nm | |
| **Transformer ratios** | | |
| Configurable current ratio (CT) | - | |
| Configurable voltage ratio (VT) | - | |
| **Pulse indicator (LED)** | | |
| Pulse frequency | 1000 imp/kWh | |
| Pulse length | 40 ms | |
| **Frequency** | 50 or 60 Hz ± 5% | |
| Accuracy Class | B (Cl.1) and Reactive Cl. 2 | |
| Active energy | 1% | |
| Display of energy | Pixel oriented display (LCD) | |
| **Environmental** | | |
| Operating temperature | -40°C - +70°C | |
| Storage temperature | -40°C - +85°C | |
| Humidity | 75% yearly average, 95% on 30 days/year | |
| Resistance to fire and heat | Terminal 960°C, cover 650°C (IEC 60695-2-1) | |
| Resistance to water and dust | IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529. | |
| Mechanical environment | Class M1 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU). | |
| Electromagnetic environment | Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU). | |

| | A42 | A43 | A44 |
|---|---|---|---|
| | | 3x230/400 V AC | |
| | 57.7 - 288 or 100 ... 288 V AC (-20% - +15%) | 3x57.7/100 ... 288/500 V AC (-20% - +15%) | 3x57.7/100 ... 288/500 or<br>3x100/173 ... 400/690 V AC (-20% - +15%) |
| | 0.001 VA (0.001 W) at $I_{ref}$ and $I_n$ | 0.007 VA (0.007 W) per phase at $I_{ref}$ and $I_b$ | 0.001 VA (0.001 W) per phase at $I_{ref}$ and $I_n$ |
| | - | 5 A | - |
| | 1 A | - | 1 A |
| | 1 A | 5 A | 1 A |
| | 0.05 A | 0.5 A | 0.05 A |
| | 6 A | 80 A | 6 A |
| | 0.02 A | 0.25 A | 0.01 A |
| | < 1 mA | < 20 mA | < 1 mA |
| | 0.5 - 10 $mm^2$ | 1 - 25 $mm^2$ | 0.5 - 10 $mm^2$ |
| | 1.2 Nm | 3 Nm | 1.5 Nm |
| | | 0.5 - 1 $mm^2$ | |
| | | 0.25 Nm | |
| | 1/9 - 9999/1 | - | 1/9 - 9999/1 |
| | 1/999 - 999999/1 | - | 1/999 - 999999/1 |
| | 5000 imp/kWh | 1000 imp/kWh | 5000 imp/kWh |
| | 40 ms | | |
| | 50 or 60 Hz ± 5% | | |
| | B (Cl.1), C (Cl. 0,5 S) and Reactive Cl. 2 | A (Cl.2), B (Cl.1) and Reactive Cl. 2 | B (Cl.1), C (Cl. 0,5 S) and Reactive Cl. 2 |
| | 0.5%, 1% | 1%, 2% | 0.5%, 1% |
| | -40°C - +70°C | | |
| | -40°C - +85°C | | |
| | 75% yearly average, 95% on 30 days/year | | |
| | Terminal 960°C, cover 650°C (IEC 60695-2-1) | | |
| | IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529. | | |
| | Class M1 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU). | | |
| | Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU). | | |

# Energy efficiency
## EQ meters A series

The A series meters ranges from single phase to three phase meters and from basic up to advanced functionality without any comparison. The A series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. With the main terminals in accordance with DIN 43857 and accessible from the below the meters, the A series is suitable for many applications.

The low rated or base currents of these products ensures high dynamic performance with superior accuracy even at low currents. The meters support a wide voltage range as well as a wide temperature range. The display is pixel-oriented and can display up to four quantities at the same time. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the “glass lid” on the front of the meter is closed and sealed. The exceptional low power consumption of the meters makes them economical in the long run - an important feature specially for large meter populations.

Data from the A series meters can be collected via pulse output or serial communication. The pulse output is a solid state relay that generates pulses proportionally to the measured energy. The meters can also be equipped with built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485). Meters with RS-485 interface can also be set to communicate over the new EQ bus with the gateway G13. All meters in the A series come with an infrared port for communication with an external Serial Communication Adapter (SCA) such as the KNX adapter.

A series supports following instrumentation values dependent on version of meter:
- Active energy
- Current
- Voltage
- Power factor
- Reactive power
- Apparent power
- Frequency
- Harmonics
- Total harmonic distortion

A series meters with a functionality level of Gold or Platinum have an internal clock for advanced functionality:
- Event log
- Previous values
- Load profile
- Maximum and minimum demand

The tariffs are controlled via inputs, via communication or via an internal clock in Gold and Platinum versions.

The A series support up to four I/O’s. It can be two inputs and two outputs in a fixed configuration or four I/O points that are freely configured to input or output. Inputs can be used for counting pulses from e.g. a water meter, or reading status from external devices. Outputs can be used as pulse outputs or controlling external apparatus like a contactor or an alarm (connected via an external relay). Outputs need an external voltage supply.

The A series meters are type approved according to IEC and they are both type approved and verified according to MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. MID type approval and verification is mandatory for meters in billing applications within EU and EEA. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.



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A-series

| Technical features | | |
|---|---|---|
| | A41 | |
| **Outputs** | | |
| Current | 2 - 100 mA | |
| Voltage | 5 - 240 V AC/DC. For meters with only 1 output, 5 - 40 V DC. | |
| Pulse output frequency | Programmable: 1 - 999999 imp/kWh | |
| Pulse length | Programmable: 10 - 990 ms | |
| Terminal wire area | 0.5 - 1 $mm^2$ | |
| Recommended tightening torque | 0.25 Nm | |
| **EMC compatibility** | | |
| Impulse voltage test | 6 kV 1.2/50 µs (IEC 60060-1) | |
| Surge voltage test | 4 kV 1.2/50 µs (IEC 61000-4-5) | |
| Fast transient burn test | 4 kV (IEC 61000-4-4) | |
| Immunity to electromagnetic HF-fields | 80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3) | |
| Immunity to conducted disturbance | 150 kHz - 80 MHz, (IEC 61000-4-6) | |
| Immunity to disturbance with harmonics | 2kHz - 150kHz | |
| Radio frequency emission | EN 55022, class B (CISPR22) | |
| Electrostatic discharge | 15 kV (IEC 61000-4-2) | |
| Standards | EC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0,5 S, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GBT 17215.321-2008 class 1 & 2, GB/T 17215.322-2008 class 0,5 S, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C EQ meters. | |
| **Mechanical** | | |
| Material | Polycarbonate in transparent front glass, bottom case, upper case and terminal cover, Glass reinforced polycarbonate in terminal block. | |
| **Dimensions** | **A41 / A42** | **A43 / A44** |
| Width | 70 mm | 123 mm |
| Height | 97 mm | 97 mm |
| Depth | 65 mm | 65 mm |
| DIN modules | 4 | 7 |

# Energy efficiency
## EQ meters A series




A41

Direct connected electricity meter up to 80 A. Verified and approved according to MID. IEC approval.Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

### EQ meters single phase electricity meter, 4 DIN with IR port, 80 A

**Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Pulse output | 705547 | A41 111 - 100 | 2CMA170554R1000 | | 0.230 | 1 |
| 57.7...288 V AC, Pulse output, RS-485 | 705004 | A41 112 - 100 | 2CMA170500R1000 | | 0.230 | 1 |
| 57.7...288 V AC, Pulse output, M-Bus | 002400 | A41 113 - 100 | 2CMA100240R1000 | | 0.230 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Pulse output, RS-485 | 705011 | A41 212 - 100 | 2CMA170501R1000 | | 0.230 | 1 |

**Class 1 (Reactive Class 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, 2 output, 2 input | 705028 | A41 311 - 100 | 2CMA170502R1000 | | 0.230 | 1 |
| 57.7...288 V AC, 2 output, 2 input, RS-485 | 705035 | A41 312 - 100 | 2CMA170503R1000 | | 0.230 | 1 |
| 57.7...288 V AC, 2 output, 2 input. M-Bus | 705042 | A41 313 - 100 | 2CMA170504R1000 | | 0.230 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, 2 output, 2 input, RS-485 | 705059 | A41 412 - 100 | 2CMA170505R1000 | | 0.230 | 1 |
| 57.7...288 V AC, 2 output, 2 input, M-Bus | 705066 | A41 413 - 100 | 2CMA170506R1000 | | 0.230 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Configurable 4 I/O channels, RS-485 | 002370 | A41 512 - 100 | 2CMA100237R1000 | | 0.230 | 1 |
| 57.7...288 V AC, Configurable 4 I/O channels, M-Bus | 705080 | A41 513 - 100 | 2CMA170508R1000 | | 0.230 | 1 |



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A42

Transformer CTVT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. Voltage V - 57...288 V AC. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

## EQ meters single phase electricity meter, 4 DIN with IR port, 6 A

**Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Pulse output | 705554 | A42 111 - 100 | 2CMA170555R1000 | | 0.200 | 1 |
| 57.7...288 V AC, Pulse output, RS-485 | 705103 | A42 112 - 100 | 2CMA170510R1000 | | 0.200 | 1 |
| 57.7...288 V AC, Pulse output, M-Bus | 002424 | A42 113 - 100 | 2CMA100242R1000 | | 0.200 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Pulse output, RS-485 | 705110 | A42 212 - 100 | 2CMA170511R1000 | | 0.200 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, 2 output, 2 input, RS-485 | 705127 | A42 312 - 100 | 2CMA170512R1000 | | 0.200 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, 2 output, 2 input, RS-485 | 705134 | A42 412 - 100 | 2CMA170513R1000 | | 0.200 | 1 |
| 57.7...288 V AC, 2 output, 2 input, M-Bus | 705141 | A42 413 - 100 | 2CMA170514R1000 | | 0.200 | 1 |

**Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 57.7...288 V AC, Configurable 4 I/O channels, RS-485 | 002387 | A42 552 - 100 | 2CMA100238R1000 | | 0.200 | 1 |
| 57.7...288 V AC, Configurable 4 I/O channels, M-Bus | | A42 553 - 100 | 2CMA170516R1000 | | 0.200 | 1 |

# Energy efficiency
## EQ meters A series



A43

Direct connected electricity meter up to 80 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

### EQ meters three phase electricity meter, 7 DIN with IR port, 80 A

**Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Pulse output | 705202 | A43 111 - 100 | 2CMA170520R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, RS-485 | 002448 | A43 112 - 100 | 2CMA100244R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, M-Bus | 002455 | A43 113 - 100 | 2CMA100245R1000 | | 0.440 | 1 |

**Class A (Cl. 2) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Pulse output | 705219 | A43 121 - 100 | 2CMA170521R1000 | | 0.440 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Pulse output | 000123 | A43 211 - 100 | 2CMA100012R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, RS-485 | 705226 | A43 212 - 100 | 2CMA170522R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, M-Bus | 705233 | A43 213 - 100 | 2CMA170523R1000 | | 0.440 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input | 705240 | A43 311 - 100 | 2CMA170524R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485 | 705257 | A43 312 - 100 | 2CMA170525R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus | 705264 | A43 313 - 100 | 2CMA170526R1000 | | 0.440 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock,previous values, max and min demand.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485 | 705288 | A43 412 - 100 | 2CMA170528R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus | 705295 | A43 413 - 100 | 2CMA170529R1000 | | 0.440 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels | 001434 | A43 511 - 100 | 2CMA100143R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, RS-485 | 705318 | A43 512 - 100 | 2CMA170531R1000 | | 0.440 | 1 |
| 3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, M-Bus | 705325 | A43 513 - 100 | 2CMA170532R1000 | | 0.440 | 1 |



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A44

Transformer CTVT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

## EQ meters three phase electricity meter, 7 DIN with IR port, 6 A

**Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Pulse output | 705332 | A44 111 - 100 | 2CMA170533R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, RS-485 | 002486 | A44 112 - 100 | 2CMA100248R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, M-Bus | 002493 | A44 113 - 100 | 2CMA100249R1000 | | 0.350 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Pulse output | 000130 | A44 211 - 100 | 2CMA100013R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, RS-485 | 705349 | A44 212 - 100 | 2CMA170534R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, Pulse output, M-Bus | 705356 | A44 213 - 100 | 2CMA170535R1000 | | 0.350 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input | 705363 | A44 311 - 100 | 2CMA170536R1000 | | 0.350 | 1 |

**Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485 | 705370 | A44 352 - 100 | 2CMA170537R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus | 705387 | A44 353 - 100 | 2CMA170538R1000 | | 0.350 | 1 |

**Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock,previous values, max and min demand.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485 | 705400 | A44 452 - 100 | 2CMA170540R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus | 705417 | A44 453 - 100 | 2CMA170541R1000 | | 0.350 | 1 |

**Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, RS-485 | 705455 | A44 552 - 100 | 2CMA170545R1000 | | 0.350 | 1 |
| 3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, M-Bus | 705462 | A44 553 - 100 | 2CMA170546R1000 | | 0.350 | 1 |

# Energy efficiency
## EQ meters B series




**B-series**

**Technical features**

| | B21 |
|---|---|
| **Voltage/current inputs** | |
| Nominal voltage | 230 V AC |
| Voltage range | 220...240 VAC (-20% - +15%) |
| Power dissipation voltage circuits | 0.9 VA (0,4 W) total at 230 V AC |
| Power dissipation current circuits | 0.014 VA (0.014 W) at $I_{ref}$ and $I_b$ |
| Base current $I_b$ | 5 A |
| Rated current $I_n$ | - |
| Reference current $I_{ref}$ | 5 A |
| Transitional current $I_{tr}$ | 0.5 A |
| Maximum current $I_{max}$ | 65 A |
| Minimum current $I_{min}$ | 0.25 A |
| Starting current $I_{st}$ | < 20 mA |
| Terminal wire area | 1 - 25 $mm^2$ |
| Recommended tightening torque | 2 Nm |
| **Communication** | |
| Terminal wire area | 0.5 - 1 $mm^2$ |
| Recommended tightening torque | 0.25 Nm |
| **Transformer ratios** | |
| Configurable current ratio (CT) | - |
| **Pulse indicator (LED)** | |
| Pulse frequency | 1000 imp/kWh |
| Pulse length | 40 ms |
| **General data** | |
| Frequency | 50 or 60 Hz ± 5% |
| Accuracy Class | B (Cl. 1) and Reactive Cl. 2 |
| Active energy | 1% |
| Display of energy | 6 digit LCD |
| **Environmental** | |
| Operating temperature | -40°C - +70°C |
| Storage temperature | -40°C - +85°C |
| Humidity | 75% yearly average, 95% on 30 days/year |
| Resistance to fire and heat | Terminal 960 °C, cover 650°C (IEC 60695-2-1) |
| Resistance to water and dust | IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529. |
| Mechanical environment | Class M1 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU). |
| Electromagnetic environment | Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU). |
| **Outputs** | |
| Current | 2 - 100 mA |
| Voltage | 5 - 240 V AC/DC. For meters with only 1 output 5 - 40 VDC. |

| | B23 | B24 |
|---|---|---|
| | 3x230/400 V AC | |
| | 3x220/380...240/415 VAC (-20% - +15%) | |
| | 1.6 VA (0,7 W) total at 230 V AC | |
| | 0.007 VA (0.007 W) per phase at $I_{ref}$ and $I_b$ | |
| | | - |
| | | 1 A |
| | | - |
| | | 0.05 A |
| | | 6 A |
| | | 0.02 A |
| | | < 1 mA |
| | | 0.5 - 10 $mm^2$ |
| | | 1.2 Nm |
| | | |
| | | |
| | | |
| | | |
| | | 1/9 - 9999/1 |
| | | |
| | | 5000 imp/kWh |
| | | |
| | | |
| | B (Cl. 1) or C (Cl. 0.5 S) and Reactive Cl. 2 | |
| | | 0.5%, 1% |
| | 7 digit LCD | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529. | |
| | Class M1 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU). | |
| | Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU). | |
| | | |
| | 5 - 240 V AC/DC. For meters with only 1 output 5 - 40 VDC. | |

# Energy efficiency
## EQ meters B series

The EQ meters, B series is a range of meters for single phase and three phase metering. The B series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. The B series are suitable in applications where there is a need for reliable energy measurements and where space is limited.

The low rated or base currents of these products ensures high dynamic performance with superior accuracy even at low currents. The B series meters are meters for many applications and installations. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the “glass lid” on the front of the meter is closed and sealed. The exceptional low power consumption of the meters, less than 0.9 VA and 1.6 VA, makes them economical in the long run - an important feature specially for large meter populations.

Data from the B series meters can be collected via pulse output or serial communication. The pulse output is a solid state relay that generates pulses proportionally to the measured energy. The meters can also be equipped with built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485). Meters with RS-485 interface can also be set to communicate over the new EQ bus with the new gateway G13. All meters in the B series come with an infrared port for communication with an external Serial Communication Adapter (SCA) such as the KNX adapter.



The B series meters support reading of instrument values. A large number of electrical properties can be read. Depending on version of the meter the following data is available:
- Active power
- Apparent power
- Reactive power
- Current
- Voltage
- Frequency
- Power factor

Up to 4 tariffs are controlled via inputs or communication.

The B series support two inputs and two outputs in a fixed configuration. Inputs can be used for counting pulses from e.g. a water meter, or reading status from external devices. Outputs can be used as pulse outputs or controlling external apparatus like a contactor or an alarm (connected via an external relay).

The B series meters are type approved according to IEC and they are both type approved and verified according to MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. MID type approval and verification is mandatory for meters in billing applications within EU and EEA. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

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B-series

| Technical features | | |
|---|---|---|
| | B21 | |
| Pulse output frequency | Programmable 1 - 999999 imp/kWh | |
| Pulse length | Programmable 10 - 990 ms | |
| Terminal wire area | 0.5 - 1 $mm^2$ | |
| Recommended tightening torque | 0.25 Nm | |
| **Inputs** | | |
| Voltage | 0 - 240 V AC/DC | |
| OFF | 0 - 12 V AC/DC | |
| ON | 57 - 240 V AC/24 - 240 V DC | |
| Min. pulse length | 30 ms | |
| Terminal wire area | 0.5 - 1 $mm^2$ | |
| Recommended tightening torque | 0.25 Nm | |
| **EMC compatibility** | | |
| Impulse voltage test | 6 kV 1.2/50µs (IEC 60060-1) | |
| Surge voltage test | 4 kV 1.2/50µs (IEC 61000-4-5) | |
| Fast transient burn test | 4kV (IEC 61000-4-4) | |
| Immunity to electromagnetic HF-fields | 80 MHz - 2 GHz (IEC 61000-4-6) | |
| Immunity to conducted disturbance | 150kHz - 80MHz (IEC 61000-4-6) | |
| Immunity to disturbance with harmonics | 2kHz - 150kHz | |
| Radio frequency emission | EN 55022, class B (CISPR22) | |
| Electrostatic discharge | 15 kV (IEC 61000-4-2) | |
| Standards | IEC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0,5 S, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GB/T 17215.312-2008 class 1 & 2, GB/T 17215.322-2008 class 0,5 S, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C | |
| **Mechanical** | | |
| Material | Polycarbonate in transparent front glass. Glass reinforced polycarbonate in bottom case and upper case. Polycarbonate in terminal cover. | |
| **Dimensions** | **B21** | **B23/B24** |
| Width | 35 mm | 70 mm |
| Height | 97 mm | 97 mm |
| Depth | 65 mm | 65 mm |
| DIN modules | 2 | 4 |

# Energy efficiency
## EQ meters B series




B21

Direct connected electricity meter up to 65 A. Verified and approved according to MID. IEC approval. Instrument values. Alarm function. - Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

### EQ meters single phase electricity meter, 2 DIN with IR port, 65 A

**For direct connection up to 65 A. Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 x 230 V AC, Pulse output | 001496 | B21 111 - 100 | 2CMA100149R1000 | | 0.140 | 1 |
| 1 x 230 V AC, Pulse output, RS-485 | 001502 | B21 112 - 100 | 2CMA100150R1000 | | 0.150 | 1 |
| 1 x 230 V AC, Pulse output, M-Bus | 001519 | B21 113 - 100 | 2CMA100151R1000 | | 0.150 | 1 |

**For direct connection up to 65 A. Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 x 230 V AC, Pulse output, RS-485 | 001526 | B21 212 - 100 | 2CMA100152R1000 | | 0.150 | 1 |

**For direct connection up to 65 A. Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 x 230 V AC, 2 output, 2 input | 001540 | B21 311 - 100 | 2CMA100154R1000 | | 0.140 | 1 |
| 1 x 230 V AC, 2 output, 2 input, RS-485 | 001557 | B21 312 - 100 | 2CMA100155R1000 | | 0.150 | 1 |
| 1 x 230 V AC, 2 output, 2 input, M-Bus | 001564 | B21 313 - 100 | 2CMA100156R1000 | | 0.150 | 1 |



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B23

Direct connected electricity meter up to 65 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

## EQ meters three phase electricity meter, 4 DIN with IR port, 65 A

**Class B (Cl. 1) with functionality level Steel.**
**Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, Pulse output | 001632 | B23 111 - 100 | 2CMA100163R1000 | | 0.310 | 1 |
| 3 x 230/400 V AC, Pulse output, RS-485 | 001649 | B23 112 - 100 | 2CMA100164R1000 | | 0.320 | 1 |
| 3 x 230/400 V AC, Pulse output, M-Bus | 001656 | B23 113 - 100 | 2CMA100165R1000 | | 0.330 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze.**
**Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, Pulse output, RS-485 | 001663 | B23 212 - 100 | 2CMA100166R1000 | | 0.320 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver.**
**Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, 2 output, 2 input | 001687 | B23 311 - 100 | 2CMA100168R1000 | | 0.330 | 1 |
| 3 x 230/400 V AC, 2 output, 2 input, RS-485 | 001694 | B23 312 - 100 | 2CMA100169R1000 | | 0.340 | 1 |
| 3 x 230/400 V AC, 2 output, 2 input, M-Bus | 001700 | B23 313 - 100 | 2CMA100170R1000 | | 0.350 | 1 |

# Energy efficiency
## EQ meters B series




B24

Transformer CT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

### EQ meters three phase electricity meter, 4 DIN with IR port, 6 A

**Class B (Cl. 1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, Pulse output | 001779 | B24 111 - 100 | 2CMA100177R1000 | | 0.250 | 1 |
| 3 x 230/400 V AC, Pulse output, RS-485 | 001786 | B24 112 - 100 | 2CMA100178R1000 | | 0.250 | 1 |
| 3 x 230/400 V AC, Pulse output, M-Bus | 001793 | B24 113 - 100 | 2CMA100179R1000 | | 0.270 | 1 |

**Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze.**
**Active and reactive energy, import/export.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, Pulse output, RS-485 | 001809 | B24 212 - 100 | 2CMA100180R1000 | | 0.250 | 1 |

**Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Silver.**
**Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, 2 output, 2 input | 001823 | B24 351 - 100 | 2CMA100182R1000 | | 0.270 | 1 |
| 3 x 230/400 V AC, 2 output, 2 input, RS-485 | 001830 | B24 352 - 100 | 2CMA100183R1000 | | 0.270 | 1 |
| 3 x 230/400 V AC, 2 output, 2 input, M-Bus | 001847 | B24 353 - 100 | 2CMA100184R1000 | | 0.290 | 1 |

# Energy efficiency
## EQ meters C series

The EQ meters, C series are truly compact meters for single phase and three phase metering. The C series is mounted on a DIN rail and is suitable for installation in distribution boards and small consumer units.

Only one module wide, the C series is a very compact meter for single phase and three phase applications. The meters have an LCD with large digits showing energy register and instrumentation values. The meters have a wide temperature range which makes it possible to install the meters in many locations. Navigating the meters are easily done via the push-button below the display. The exceptional low power consumption of the meters, less than 0,3 W and 0,6 W at 230 V AC, makes them economical in the long run - an important feature specially for large meter populations.

The C series meters support reading of instrument values. A number of electrical properties can be read:
- Power factor
- Active power
- Current
- Voltage

The C series meters have an output that can be used as pulse output or alarm output. The alarm quantity and levels is easily configured on the meter with the push button. The output can be used for controlling external apparatus like a contactor or an alarm indicator (connected via an external relay).

The C series meters are type approved according to IEC and MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

MID versions have initial verification according to annex F of the Measuring Instruments Directive.



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# Energy efficiency
## EQ meters C series




C-series

| Technical features | | |
|---|---|---|
| | C11 | C13 |
| **Voltage/current inputs** | | |
| Nominal voltage | 230 V AC | 3x230/400 V AC |
| Voltage range | 230 V AC (-20% - +15%) | 3x230/400 V AC (-20% - +15%) |
| Power dissipation voltage circuits | 7.4 VA (0.3 W) at 230 V | 1.5 VA (0.6 W) total at 230 V |
| Power dissipation current circuits | 0.04 VA (0.04 W) at $I_b$ and $I_{ref}$ | 0.04 VA (0.04 W) per phase at $I_b$ and $I_{ref}$ |
| Base current $I_b$ | 5 A | |
| Rated current $I_n$ | - | |
| Reference current $I_{ref}$ | 5 A | |
| Transitional current $I_{tr}$ | 0.5 A | |
| Maximum current $I_{max}$ | 40 A | |
| Minimum current $I_{min}$ | 0.25 A | |
| Starting current $I_{st}$ | < 20 mA | |
| Terminal wire area | 1 - 10 $mm^2$ | 0.5 - 10 $mm^2$ |
| Recommended tightening torque | 0.8 Nm | |
| **General data** | | |
| Frequency | 50 or 60 Hz ± 5% | |
| Accuracy Class | B (Cl.1) | |
| Active energy | 1% | |
| Display of energy | 6 digits LCD | |
| **Communication** | | |
| Terminal wire area | - | |
| Recommended tightening torque | - | |
| **Pulse indicator (LED)** | | |
| Pulse frequency | 1000 imp/kWh | |
| Pulse length | 40 ms | |
| **Environmental** | | |
| Operating temperature | - 25°C - +70°C | |
| Storage temperature | - 25°C - +85°C | |
| Humidity | 75% yearly average, 95% on 30 days/year | |
| Resistance to fire and heat | Terminal 960°C, cover 650°C (IEC 60695-2-1) | |
| Resistance to water and dust | IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529. | |
| Mechanical environment | Class M1 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU). | |
| Electromagnetic environment | Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU). | |

| Technical features | | |
|---|---|---|
| | C11 | C13 |
| **Outputs** | | |
| Current | 2 - 100 mA | |
| Voltage | 5 - 40 V DC | |
| Pulse output frequency | 100 (imp/kWh) | |
| Pulse length | 200 ms | |
| Terminal wire area | 0.5 - 6 $mm^2$ | |
| Recommended tightening torque | 0.8 Nm | |
| **EMC compatibility** | | |
| Impulse voltage test | 6 kV 1.2/50 µs (IEC 60060-1) | |
| Surge voltage test | 4 kV 1.2/50 µs (IEC 61000-4-5) | |
| Fast transient burn test | 4 kV (IEC 61000-4-4) | |
| Immunity to electromagneti HF-fields | 80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3) | |
| Immunity to conducted disturbance | 150 kHz - 80 MHz, (IEC 61000-4-6) | |
| Immunity to disturbance with harmonics | 2kHz - 150kHz | |
| Radio frequency emission | EN 55022, class B (CISPR22) | |
| Electrostatic discharge | 15 kV (IEC 61000-4-2) | |
| Standards | IEC 62052-11, IEC 62053-21 class 1, GB/T 17215.211-2006, GBT 17215.321-2008 class 1, GB 4208-2008, EN 50470-1, EN 50470-3 category B | |
| **Mechanical** | | |
| Material | Glass reinforced polycarbonate | |
| **Dimensions** | | |
| Width | 17,5 mm | 54 mm |
| Height | 111 mm | 122 mm |
| Depth | 65 mm | 65 mm |
| DIN modules | 1 | 3 |

# Energy efficiency
## EQ meters C series




C11

Direct connected electricity meter up to 40 A. IEC approval. Instrument values. Alarm function. Optional - Verified and approved according to MID.

### EQ meters single phase electricity meter, 1 DIN, 40 A

**Class B (Cl.1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 1 x 230 V AC, Pulse output | 000147 | C11 111 - 100*) | 2CMA100014R1000 | | 0.070 | 1 |
| **Class 1 with functionality level Steel. Active energy** | | | | | | |
| 1 x 230 V AC, Pulse output | 705509 | C11 110 - 300 | 2CMA170550R1000 | | 0.070 | 1 |




C13

Direct connected electricity meter. IEC approval. 3 element metering. Instrument values. Alarm function. Optional - Verified and approved according to MID.

### EQ meters three phase electricity meter, 3 DIN, 40 A

**For direct connection up to 40 A. Class B (Cl.1) with functionality level Steel. Active energy**

| Description | Bbn 7392696 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 3 x 230/400 V AC, Pulse output | 001915 | C13 110 - 100*) | 2CMA100191R1000 | | 0.170 | 1 |
| **For direct connection up to 40 A. Class 1 with functionality level Steel. Active energy** | | | | | | |
| 3 x 230/400 V AC, Pulse output | 001922 | C13 110 - 300 | 2CMA100192R1000 | | 0.170 | 1 |

*) MID approval

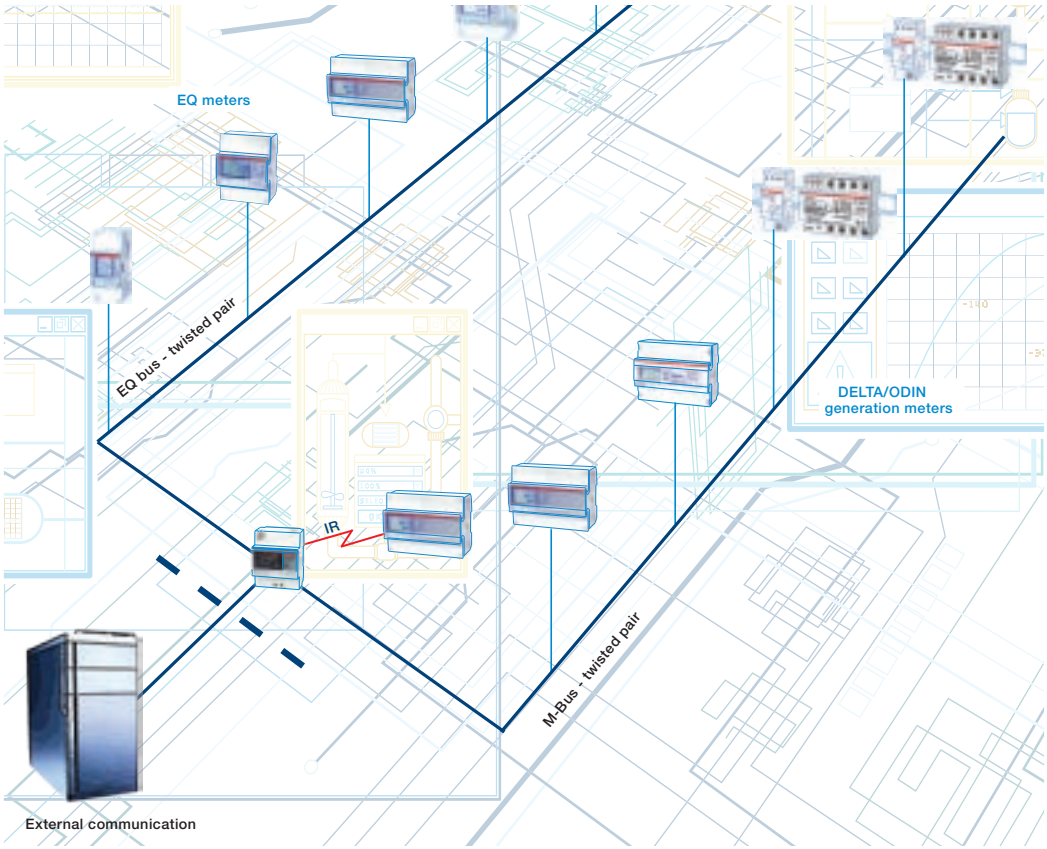
# Energy efficiency
## EQ meters G series




G13

G13 is the new Ethernet gateway that will make data collection from a meter network very convenient. Communication is performed using JSON (JavaScript Object Notation) on the Ethernet side. The gateway is also equipped with a webserver that provides a detailed overview of all meters installed in a network as well as the possibility to perform advanced configurations of the meters and read-out data. High data security is obtained by encryption using SSL (Secure Sockets Layer).

The gateway communicates with EQ meters over EQ bus, a communication protocol based on the IEC standards (DLMS/cosem), using RS-485, and can also work as an M-Bus master for M-Bus enabled ABB meters.




Gateway for routing and protocol conversion between system and meter network with up to 32 meters.
Communication protocols on the meter side: EQ bus over RS-485, M-Bus and ABB IR port.
Communication protocols on the system side: Ethernet with JSON. Built-in webserver for meter reading and meter management.

### Ethernet gateway

| Description | | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 100 - 240 V AC | 7392696705523 | G13 100-000 | 2CMA170552R1000 | | 0.170 | 1 |
| 21…30 V DC via EIB / KNX | 4016779662079 | ZS/S 1.1 | 2CDG110083R0011 | | 0.100 | 1 |

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# Energy efficiency
## Analogue and digital instruments selection table

| Measure | Technology | Mounting | Insertion | Characteristics | Accessories | Type | |
|---|---|---|---|---|---|---|---|
| Voltage | Analogue | 3 modules | Direct | a.c. and d.c. | MCV voltage switches | VLM<br>page 8/45 |  |
| | | 48x48,<br>72x72,<br>96x96 | Direct | | MCV voltage switches | VLM-1<br>VLM-2<br>page 8/50 |  |
| | | 48x48,<br>72x72,<br>96x96 | Indirect | | TV voltage transformers<br>MCV voltage switches | VLM1-TV<br>VLM2-TV<br>page 8/50 |  |
| | Digital | 3 modules | Direct | a.c. and d.c.<br>Auxiliary supply<br>230 V a.c. | MCV voltage switches | VLMD<br>page 8/42 |  |
| | | 36x72 | Direct | | MCV voltage switches | VLMD P<br>page 8/43 |  |
| Current | Analogue | 3 modules | Direct | a.c. and d.c. | MCA current switches | AMT<br>page 8/45 |  |
| | | | Indirect | | CT a.c. current transformer<br>SNT shunt for d.c.<br>SCL interchangeable scale<br>MCA current switches | AMT1/A<br>AMT2<br>page 8/46 |  |
| | | 48x48,<br>72x72,<br>96x96 | Direct | | MCA current switches | AMT1-A1<br>AMT2-A2<br>page 8/52 |  |
| | | | Indirect | | CT a.c. current transformer<br>SNT shunt for d.c.<br>SCL interchangeable scale<br>MCA current switches | AMT1-A1<br>AMT1-A5<br>AMT2-A2<br>page 8/52 |  |
| | Digital | 3 modules | Indirect | a.c. and d.c.<br>Auxiliary supply<br>230 V a.c. | CT a.c. current transformer<br>SNT shunt for d.c.<br>MCA current switches | AMTD<br>page 8/42 |  |
| | | 36x72 | Indirect | | CT a.c. current transformer<br>SNT shunt for d.c.<br>MCA current switches | AMTD P<br>page 8/43 |  |
| Frequency | Analogue | 3 modules | Direct | a.c. | | FRZ1<br>page 8/46 |  |
| | | 48x48,<br>72x72,<br>96x96 | Direct | | | FRZ<br>page 8/54 |  |
| | Digital | 3 modules | Direct | Auxiliary supply<br>230 V a.c. | | FRZ-DIG<br>page 8/42 |  |

# Energy efficiency
## Modular digital instruments



2CSC400745F0001

**Digital instruments**

| Technical features | | |
|---|---|---|
| Power supply | [V] | 230 V a.c. |
| Rated frequency | [Hz] | 50÷60 |
| Ammeter full scale value | [A] | 5, 20, 25, 40, 60, 100, 150, 200, 250, 400, 600, 999 |
| Voltmeter full scale value | [V] | 600 |
| Frequency meter range | [Hz] | 35...400 |
| Tripping delay | [s] | 1, 5, 10, 20, 30 |
| Hysteresis | [%] | 5, 10, 20, 30 set threshold |
| Output pins | | 3-4 |
| Output relay | | NO |
| Rated voltage relay | [V] | 230 V a.c. |
| Rated current relay | [A] | AC1 16, AC15 3 |
| Relay configuration | | NO relay closes in alarm status |
| | | NC relay opens in alarm status, positive safety |
| Overload | [In/Vn] | 1, 2 |
| Accuracy class | [%] | ±0,5 full scale ±1digit at 25 °C |
| Max. signal input value for ammeters | | 5 A a.c./60 mV d.c. |
| Display | | 3 digit LED display |
| Operating temperature | [°C] | -10...+55 |
| Storage temperature | [°C] | -40...+70 |
| Protection degree | | IP20 |
| Power consumption | [VA] | 4 |
| Modules | | 3 |
| Overall dimensions front panel devices | [mm] | 36x72x61.5 (51.5 depth inside the switchboard) |
| Standard | | IEC EN 61010 |

# Energy efficiency
# Modular digital instruments



2CSC400745F0001

VLMD



2CSC400755F0001

AMTD



2CSC400748F0001

FRZ

## Modular digital instruments

The wide range of modular digital instruments starts with single-phase mono-function measurement devices for measuring voltage, current and frequency.
The range is composed by a voltmeter for a.c./d.c. voltage monitoring, two ammeter for a.c. and d.c. current, and a frequency meter. Ammeters measure in indirect insertion thanks to measuring accessories, like current transformer for a.c. and shunt for d.c.
The full-scale value is programmable by the user, according to the current flow on the primary windings.

| Version | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| a.c./d.c. digital voltmeter | 620402 | VLMD-1-2 | 2CSM110000R1011 | | 0,300 | 1 |
| a.c. digital ammeter | 620501 | AMTD-1 | 2CSM320000R1011 | | 0,300 | 1 |
| d.c. digital ammeter | 620600 | AMTD-2 | 2CSM420000R1011 | | 0,300 | 1 |
| Digital frequency meter | 620709 | FRZ-DIG | 2CSM710000R1011 | | 0,300 | 1 |

## Modular digital instruments with alarm relay

The range is widened by three additional devices with extended features: one voltmeter and two ammeters, trip the internal relay to signal an alarm condition if the measured parameter exceeds or falls below a programmable threshold. The measured maximum and minimum peak values are stored in the non-volatile instrument's memory.
The contact type is NO, so that the contact is open when the instrument is powered off, but it is possible to obtain positive safety operation setting, directly on the instrument, the NC relay contact type.
The instrument with relay can be used to signal the exceeding or the fall below a certain threshold, but not for both functions simultaneously.

| Version | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| a.c./d.c. digital voltmeter with alarm relay | 746935 | VLMD-1-2-R | 2CSM274693R1011 | | 0,300 | 1 |
| a.c. digital ammeter with alarm relay | 747734 | AMTD-1-R | 2CSM274773R1011 | | 0,300 | 1 |
| d.c. digital ammeter with alarm relay | 610731 | AMTD-2-R | 2CSM261073R1011 | | 0,300 | 1 |



**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64

# Energy efficiency
# Front panel digital instruments


2CSC400130F0202

VLMD P


2CSC400131F0202

AMTD-_ P

## Front-panel digital instruments

The wide range of front-panel digital instruments starts with single-phase mono-function measurement devices for measuring voltage and current.
The range is composed by a voltmeter for a.c./d.c. voltage monitoring, and two ammeter for a.c. and d.c. current. Ammeters measure in indirect insertion thanks to measuring accessories, like current transformer for a.c. and shunt for d.c.
The full-scale value is programmable by the user, according to the current flow on the primary windings.

| Version | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| a.c./d.c. digital voltmeter | 136057 | VLMD P | 2CSG213605R4011 | | 0,300 | 1 |
| a.c. digital ammeter | 136156 | AMTD-1 P | 2CSG213615R4011 | | 0,300 | 1 |
| d.c. digital ammeter | 136255 | AMTD-2 P | 2CSG213625R4011 | | 0,300 | 1 |

## Front-panel digital instruments with alarm relay

The range is widened by three additional devices with extended features: one voltmeter and two ammeters that trip the internal relay to signal an alarm condition if the measured parameter exceeds or falls below a programmable threshold. The measured maximum and minimum peak values are stored in the non-volatile instrument's memory.
The contact type is NO, so that the contact is open when the instrument is powered off, but it is possible to obtain positive safety operation setting, directly on the instrument, the NC relay contact type.
The instrument with relay can be used to signal the exceeding or the fall below a certain threshold, but not for both functions simultaneously.

| Version | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| a.c./d.c. digital voltmeter with alarm relay | 136354 | VLMD-R P | 2CSG213635R4011 | | 0,300 | 1 |
| a.c. digital ammeter with alarm relay | 136453 | AMTD-1-R P | 2CSG213645R4011 | | 0,300 | 1 |
| d.c. digital ammeter with alarm relay | 136552 | AMTD-2-R P | 2CSG213655R4011 | | 0,300 | 1 |



**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64

# Energy efficiency
## Analogue instruments selection table

| Instrument mounting | a.c / d.c. | Size | Full-scale value Visualization | Instrument type | Scale type |
|---|---|---|---|---|---|
| Modular | a.c. | - | 90° | AMT1/A1  | SCL 1  |
| | | - | 78° | AMT1/A5  | SCL 1/A5  |
| | d.c. | - | 90° | AMT2  | SCL 2  |
| Front-panel | a.c. | 48x48 mm | 90° | AMT1-A1/48  | SCL-A1 ... /48  |
| | | | 78° | AMT1-A5/48  | SCL-A5 ... /48  |
| | | 72x72 mm | 90° | AMT1-A1/72  | SCL-A1 ... /72  |
| | | | 78° | AMT1-A5/72  | SCL-A5 ... /72  |
| | | 96x96 mm | 90° | AMT1-A1/96  | SCL-A1 ... /96  |
| | | | 78° | AMT1-A5/96  | SCL-A5 ... /96  |
| | d.c. | 48x48 mm | 90° | AMT2-A2/48  | SCL-A2 ... /48  |
| | | 72x72 mm | 90° | AMT2-A2/72  | SCL-A2 ... /72  |
| | | 96x96 mm | 90° | AMT2-A2/96  | SCL-A2 ... /96  |

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### Analogue instruments with scales

The range of mono-function analogue instruments, employable in single-phase networks, is composed of measurement devices performing the measure and visualization of one electrical parameter: voltage, current and frequency.
The range of voltmeters, both in modular and front-panel versions, is composed by devices fully equipped with the proper scale, even when the use of a voltage transformer is required. The connection, whether it's direct or indirect using VT, allows the immediate visualization of the measures on the display.
The range of ammeters is composed of devices for direct and indirect connection to the network. The devices directly connected to the network are fully equipped with proper scale, while the devices that require a current transformer or a shunt, need to be combined with a separate scale to be mounted on the front of the instrument.
The wide range of scales for ammeters allows the employability of the latter even in application with high nominal current, up to 10000 A a.c.

# Energy efficiency
## Modular analogue instruments




VLM1




AMT1

| Technical features | | | |
|---|---|---|---|
| Rated voltage Un | | [V] | a.c. 300, 500; d.c. 100, 300 |
| Rated currents in a.c. | Direct reading | [A] | full scale values 5...30 |
| | Indirect reading | | full scale values 5...2500 |
| Rated currents in d.c. | Direct reading | [A] | full scale values 0.1...30 |
| | Indirect reading | | full scale values 5...500 |
| Frequency | | [Hz] | 50/60 |
| Overload capacity | | [%] | 20 compared to the voltage or to the rated current |
| Accuracy class | | [%] | 1.5 (0.5 for frequency meters) |
| Ammeters power consumption | | [VA] | 5 A: 0.3 VA; 10 A: 0.6 VA; 25 A:1 VA; 30 A: 1.2 VA |
| Voltmeters power consumption | | [VA] | 300 V: 1.5 VA; 500 V: 4 VA |
| Frequency meters power consumption | | [VA] | <1.5 VA |
| Modules | | [No.] | 3 |
| Protection degree | | | IP20 |
| Standards | | | EN 60051 |

The range of modular analogue instruments is composed by mono-function measurement devices employable in single-phase networks. It includes voltmeters, ammeters and frequency meters.
In particular, the range of ammeters is composed of devices fully equipped with the appropriate scale in the range between 5 A and 30 A. In case of greater current values, the range features devices to be used together with the proper scale and CT according to the application.

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### Modular analogue instruments for alternating current

Suitable for direct or indirect measurement through the appropriate accessories.

**Voltmeters: direct connection**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 300 V | 007906 | VLM1/300 | 2CSM110190R1001 | | 0.200 | 1 |
| 500 V | 000006 | VLM1/500 | 2CSM110220R1001 | | 0.200 | 1 |

**Ammeters: direct connection**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 5 A | 000709 | AMT1/5 | 2CSM310030R1001 | | 0.200 | 1 |
| 10 A | 000105 | AMT1/10 | 2CSM310040R1001 | | 0.200 | 1 |
| 15 A | 000204 | AMT1/15 | 2CSM310050R1001 | | 0.200 | 1 |
| 20 A | 000303 | AMT1/20 | 2CSM310060R1001 | | 0.200 | 1 |
| 25 A | 000402 | AMT1/25 | 2CSM310070R1001 | | 0.200 | 1 |
| 30 A | 000501 | AMT1/30 | 2CSM310080R1001 | | 0.200 | 1 |

**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64

# Energy efficiency
## Modular analogue instruments


2CSC400497F0001

VLM2


2CSC400517F0201

AMT2

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**Ammeters without scale: connection using CT.../5**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| A1 | 000600 | AMT1/A1 | 2CSM320250R1001 | | 0.200 | 1 |
| A5 | 000808 | AMT1/A5 | 2CSM320260R1001 | | 0.200 | 1 |

**Frequency meters: 45-65 Hz, 100/280 V**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 008606 | FRZ1 | 2CSM810310R1001 | | 0.200 | 1 |

### Modular analogue instruments for direct current

**Voltmeters: direct connection**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 100 V | 008002 | VLM2/100 | 2CSM210130R1001 | | 0.200 | 1 |
| 300 V | 008101 | VLM2/300 | 2CSM210190R1001 | | 0.200 | 1 |

**Ammeters: direct connection**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 10 mA | 028307 | AMT2/0.01 | 2CSM410330R1001 | | 0.200 | 1 |
| 100 mA | 028406 | AMT2/0.1 | 2CSM410340R1001 | | 0.200 | 1 |
| 1000 mA | 028505 | AMT2/1 | 2CSM410020R1001 | | 0.200 | 1 |
| 5 A | 028604 | AMT2/5 | 2CSM410030R1001 | | 0.200 | 1 |
| 10 A | 028703 | AMT2/10 | 2CSM410040R1001 | | 0.200 | 1 |
| 15 A | 028802 | AMT2/15 | 2CSM410050R1001 | | 0.200 | 1 |
| 20 A | 028901 | AMT2/20 | 2CSM410060R1001 | | 0.200 | 1 |
| 25 A | 029007 | AMT2/25 | 2CSM410070R1001 | | 0.200 | 1 |
| 30 A | 029106 | AMT2/30 | 2CSM410080R1001 | | 0.200 | 1 |

**Ammeters without scale: connection using shunt**

| Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 029205 | AMT2 | 2CSM420270R1001 | | 0.200 | 1 |

**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64

# Energy efficiency
# Scales for modular analogue ammeters




SCL

## Scales for modular analogue ammeters

**Scales SCL 1/A1 for AMT1**

| Scale | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| A1-5A | 001201 | SCL 1/5 | 2CSM110021R1041 | | 0.010 | 10 |
| A1-10A | 001300 | SCL 1/10 | 2CSM110032R1041 | | 0.010 | 10 |
| A1-20A | 001409 | SCL 1/20 | 2CSM110075R1041 | | 0.010 | 10 |
| A1-25A | 030706 | SCL 1/25 | 2CSM110096R1041 | | 0.010 | 10 |
| A1-30A | 001508 | SCL 1/30 | 2CSM110107R1041 | | 0.010 | 10 |
| A1-40A | 030805 | SCL 1/40 | 2CSM110128R1041 | | 0.010 | 10 |
| A1-50A | 001607 | SCL 1/50 | 2CSM110149R1041 | | 0.010 | 10 |
| A1-60A | 030904 | SCL 1/60 | 2CSM110159R1041 | | 0.010 | 10 |
| A1-75A | 031000 | SCL 1/75 | 2CSM110169R1041 | | 0.010 | 10 |
| A1-80A | 001706 | SCL 1/80 | 2CSM110179R1041 | | 0.010 | 10 |
| A1-100A | 001805 | SCL 1/100 | 2CSM110189R1041 | | 0.010 | 10 |
| A1-150A | 001904 | SCL 1/150 | 2CSM110209R1041 | | 0.010 | 10 |
| A1-200A | 002000 | SCL 1/200 | 2CSM110229R1041 | | 0.010 | 10 |
| A1-250A | 031109 | SCL 1/250 | 2CSM110249R1041 | | 0.010 | 10 |
| A1-300A | 002109 | SCL 1/300 | 2CSM110259R1041 | | 0.010 | 10 |
| A1-400A | 002208 | SCL 1/400 | 2CSM110279R1041 | | 0.010 | 10 |
| A1-500A | 002307 | SCL 1/500 | 2CSM110299R1041 | | 0.010 | 10 |
| A1-600A | 031208 | SCL 1/600 | 2CSM110309R1041 | | 0.010 | 10 |
| A1-800A | 002406 | SCL 1/800 | 2CSM110329R1041 | | 0.010 | 10 |
| A1-1000A | 002505 | SCL 1/1000 | 2CSM110339R1041 | | 0.010 | 10 |
| A1-1500A | 274704 | SCL 1/1500 | 2CSM110359R1041 | | 0.010 | 10 |
| A1-2000A | 274803 | SCL 1/2000 | 2CSM110379R1041 | | 0.010 | 10 |
| A1-2500A | 274902 | SCL 1/2500 | 2CSM110389R1041 | | 0.010 | 10 |

**Scale SCL 1/A5 for AMT1**

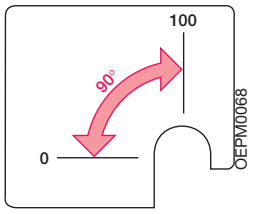
| Scale | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| A5-5A | 031307 | SCL 1/A5/5 | 2CSM120021R1041 | | 0.010 | 10 |
| A5-10A | 031406 | SCL 1/A5/10 | 2CSM120032R1041 | | 0.010 | 10 |
| A5-20A | 031505 | SCL 1/A5/20 | 2CSM120075R1041 | | 0.010 | 10 |
| A5-30A | 031604 | SCL 1/A5/30 | 2CSM120107R1041 | | 0.010 | 10 |
| A5-50A | 031703 | SCL 1/A5/50 | 2CSM120149R1041 | | 0.010 | 10 |
| A5-80A | 031802 | SCL 1/A5/80 | 2CSM120179R1041 | | 0.010 | 10 |
| A5-100A | 031901 | SCL 1/A5/100 | 2CSM120189R1041 | | 0.010 | 10 |
| A5-150A | 032007 | SCL 1/A5/150 | 2CSM120209R1041 | | 0.010 | 10 |

# Energy efficiency
## Scales for modular analogue ammeters

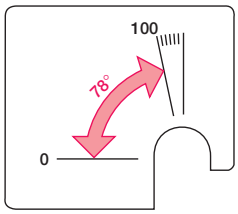
| Scales SCL 2/A1 for AMT2 | | | | | | |
|---|---|---|---|---|---|---|
| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
| | EAN | Type code | Order code | | kg | pc. |
| A1-5A | 032106 | SCL 2/5 | 2CSM230025R1041 | | 0.010 | 10 |
| A1-6A | 032205 | SCL 2/6 | 2CSM230345R1041 | | 0.010 | 10 |
| A1-10A | 032304 | SCL 2/10 | 2CSM230035R1041 | | 0.010 | 10 |
| A1-20A | 032403 | SCL 2/20 | 2CSM230075R1041 | | 0.010 | 10 |
| A1-30A | 032502 | SCL 2/30 | 2CSM230105R1041 | | 0.010 | 10 |
| A1-50A | 032601 | SCL 2/50 | 2CSM230145R1041 | | 0.010 | 10 |
| A1-80A | 032700 | SCL 2/80 | 2CSM230179R1041 | | 0.010 | 10 |
| A1-100A | 032809 | SCL 2/100 | 2CSM230189R1041 | | 0.010 | 10 |
| A1-150A | 032908 | SCL 2/150 | 2CSM230209R1041 | | 0.010 | 10 |
| A1-200A | 033004 | SCL 2/200 | 2CSM230229R1041 | | 0.010 | 10 |
| A1-250A | 033103 | SCL 2/250 | 2CSM230249R1041 | | 0.010 | 10 |
| A1-300A | 033202 | SCL 2/300 | 2CSM230259R1041 | | 0.010 | 10 |
| A1-400A | 033301 | SCL 2/400 | 2CSM230279R1041 | | 0.010 | 10 |
| A1-500A | 033400 | SCL 2/500 | 2CSM230299R1041 | | 0.010 | 10 |



**SCL1/A1/100**
Full scale at 90°




**SCL1/A5/100**
Full scale at 78°
(with extra scale)



# Energy efficiency
## Front-panel analogue instruments




**Front panel analogue instruments**

| Technical features | | |
|---|---|---|
| Rated max. reference voltage for insulation | [V] | 600 (a.c meters), 300 (d.c. meters) |
| Test voltage | [V] | 2000 eff. (50 Hz/1 min) |
| Accuracy class | | 1.5 (0.5 for frequency meters) |
| Overload capacity ① | | |
| - ammetric windings | | up to In x 10/< sec. up to In x 2/permanent |
| - voltmetric windings | | up to Un x 2/< 5 sec. up to Un x 1.2/permanent |
| Operating temperature | [°C] | -10...+55 |
| Storage temperature | [°C] | -40...+70 |
| Average and max. relative humidity (DIN 40040) ② | | 65% (yearly average)<br>85% (+35 °C/60 days a year) |
| Vibration resistance (IEC 50-1) | [g (9.81 m/s)] | 0.08-1.8 (0.35 mm/10-55 Hz; 3 axis/6 h) |
| Degree of protection | | IP52 indoors<br>IP00 on the terminals (IEC 144. DIN 40050)<br>IP20 with suitable terminal covers |
| Materials | | |
| - cases and front edge | | self-extinguishing thermosetting material in accordance with UL94 V-0, fungus and termite resistant |
| - pointers (DIN 43802) ③ | | molded aluminium |
| - terminals | | brass |
| Assembly | | vertical/horizontal with special screw-on brackets d |
| Dimensions W x H x D (DIN 43700/43718) | [mm] | 48 x 48 X 53 72 x 72 x 53 96 x 96 X 53 |
| Applicable standards | | IEC EN 61010-1 |

① The overload can be greater for instruments enabled by a CT because the transformer generally keeps secondary current peaks to within 10 In.
② Tropicalization enables the instruments to withstand up to 95% max. relative humidity (+35 °C/60 days). In accordance with DIN standard 40040, they must be protected against any penetration of humidity inside the device. Terminals, screws, washers, bolts and magnets are galvanically protected against rust, while the electrical circuits are painted with the special Multicolor PC52 varnish.
③ The pointer damping time is 1 second. The recorded values are cleared by pressing the control provided.
d With 0.5 mm -19 mm thick panels, the screws must be attached in the fixing position nearest to the front edge of the measuring device, whereas the 20 mm - 39 mm thick panels require the screws to be fixed in the position furthest away from the front edge.

# Energy efficiency
# Front-panel analogue instruments



VLM-1 48

Available in both alternating current and direct current versions, the front-panel mono-function measurement devices come in three standard sizes, 48 mm x 48 mm, 72 mm x 72 mm and 96 mm x 96 mm (special versions available on request), employable in single-phase networks.
The range is composed of voltmeters and ammeters for a.c. and d.c. applications, and frequency meters for a.c. applications.
Ammeters without scale for indirect connection must be completed with the appropriate scale, chosen according to the full-scale value.

## Front-panel analogue voltmeters for alternating current

| Size | Inser-tion | Scale | VT type | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| mm | | V a.c. | | EAN | Type code | Order code | | kg | pc. |
| 48 | D | 50 | | 541707 | VLM-1-50/48 | 2CSG111100R4001 | | | 1 |
| 48 | D | 60 | | 541806 | VLM-1-60/48 | 2CSG111110R4001 | | | 1 |
| 48 | D | 80 | | 541905 | VLM-1-80/48 | 2CSG111120R4001 | | | 1 |
| 48 | D | 100 | | 542001 | VLM-1-100/48 | 2CSG111130R4001 | | | 1 |
| 48 | D | 150 | | 542100 | VLM-1-150/48 | 2CSG111150R4001 | | | 1 |
| 48 | D | 200 | | 542209 | VLM-1-200/48 | 2CSG111160R4001 | | | 1 |
| 48 | D | 250 | | 542308 | VLM-1-250/48 | 2CSG111180R4001 | | | 1 |
| 48 | D | 300 | | 542407 | VLM-1-300/48 | 2CSG111190R4001 | | | 1 |
| 48 | D | 400 | | 542506 | VLM-1-400/48 | 2CSG111210R4001 | | | 1 |
| 48 | D | 500 | | 542605 | VLM-1-500/48 | 2CSG111220R4001 | | | 1 |
| 48 | D | 600 | | 542704 | VLM-1-600/48 | 2CSG111230R4001 | | | 1 |
| 48 | I | 200 | 110/100 | 743705 | VLM1-TV-110-100/200/48 | 2CSG121140R4001 | | | 1 |
| 48 | I | 300 | 230/100 | 542803 | VLM1-TV-230-100/300/48 | 2CSG121170R4001 | | | 1 |
| 48 | I | 500 | 380/100 | 542902 | VLM1-TV-380-100/500/48 | 2CSG121200R4001 | | | 1 |
| 48 | I | 500 | 400/100 | 743804 | VLM1-TV-400-100/500/48 | 2CSG121210R4001 | | | 1 |
| 48 | I | 600 | 500/100 | 543008 | VLM1-TV-500-100/600/48 | 2CSG121220R4001 | | | 1 |
| 48 | I | 800 | 600/100 | 743903 | VLM1-TV-600-100/800/48 | 2CSG121230R4001 | | | 1 |
| 48 | I | 1100 | 1000/100 | 744009 | VLM1-TV-1000-100/1100/48 | 2CSG121240R4001 | | | 1 |

| Size | Inser-tion | Scale | VT type | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|---|
| mm | | V a.c. | | EAN | Type code | Order code | | kg | pc. |
| 72 | D | 50 | | 544104 | VLM-1-50/72 | 2CSG112100R4001 | | | 1 |
| 72 | D | 60 | | 544203 | VLM-1-60/72 | 2CSG112110R4001 | | | 1 |
| 72 | D | 80 | | 544302 | VLM-1-80/72 | 2CSG112120R4001 | | | 1 |
| 72 | D | 100 | | 544401 | VLM-1-100/72 | 2CSG112130R4001 | | | 1 |
| 72 | D | 150 | | 544500 | VLM-1-150/72 | 2CSG112150R4001 | | | 1 |
| 72 | D | 200 | | 544609 | VLM-1-200/72 | 2CSG112160R4001 | | | 1 |
| 72 | D | 250 | | 544708 | VLM-1-250/72 | 2CSG112180R4001 | | | 1 |
| 72 | D | 300 | | 544807 | VLM-1-300/72 | 2CSG112190R4001 | | | 1 |
| 72 | D | 400 | | 544906 | VLM-1-400/72 | 2CSG112210R4001 | | | 1 |
| 72 | D | 500 | | 545002 | VLM-1-500/72 | 2CSG112220R4001 | | | 1 |
| 72 | D | 600 | | 545101 | VLM-1-600/72 | 2CSG112230R4001 | | | 1 |
| 72 | I | 200 | 110/100 | 744108 | VLM1-TV-110-100/200/72 | 2CSG122140R4001 | | | 1 |
| 72 | I | 300 | 230/100 | 545200 | VLM1-TV-230-100/300/72 | 2CSG122170R4001 | | | 1 |
| 72 | I | 500 | 380/100 | 545309 | VLM1-TV-380-100/500/72 | 2CSG122200R4001 | | | 1 |
| 72 | I | 500 | 400/100 | 744207 | VLM1-TV-400-100/500/72 | 2CSG122210R4001 | | | 1 |
| 72 | I | 600 | 500/100 | 545408 | VLM1-TV-500-100/600/72 | 2CSG122220R4001 | | | 1 |
| 72 | I | 800 | 600/100 | 744306 | VLM1-TV-600-100/800/72 | 2CSG122230R4001 | | | 1 |
| 72 | I | 1100 | 1000/100 | 744405 | VLM1-TV-1000-100/1100/72 | 2CSG122240R4001 | | | 1 |

**Maybe you are also interested in:**
Current and voltage transformers p.8/68 and p.8/81
Voltmetric and current switches p.8/64

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type




VLM-1 96




VLM-2 48

| Size mm | Inser-tion | Scale V a.c. | VT type | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 96 | D | 50 | | 546702 | VLM-1-50/96 | 2CSG113100R4001 | | | 1 |
| 96 | D | 60 | | 546801 | VLM-1-60/96 | 2CSG113110R4001 | | | 1 |
| 96 | D | 80 | | 546900 | VLM-1-80/96 | 2CSG113120R4001 | | | 1 |
| 96 | D | 100 | | 547006 | VLM-1-100/96 | 2CSG113130R4001 | | | 1 |
| 96 | D | 150 | | 547105 | VLM-1-150/96 | 2CSG113150R4001 | | | 1 |
| 96 | D | 200 | | 547204 | VLM-1-200/96 | 2CSG113160R4001 | | | 1 |
| 96 | D | 250 | | 547303 | VLM-1-250/96 | 2CSG113180R4001 | | | 1 |
| 96 | D | 300 | | 547402 | VLM-1-300/96 | 2CSG113190R4001 | | | 1 |
| 96 | D | 400 | | 547501 | VLM-1-400/96 | 2CSG113210R4001 | | | 1 |
| 96 | D | 500 | | 547600 | VLM-1-500/96 | 2CSG113220R4001 | | | 1 |
| 96 | D | 600 | | 547709 | VLM-1-600/96 | 2CSG113230R4001 | | | 1 |
| 96 | I | 200 | 110/100 | 744504 | VLM1-TV-110-100/200/96 | 2CSG123140R4001 | | | 1 |
| 96 | I | 300 | 230/100 | 547808 | VLM1-TV-230-100/300/96 | 2CSG123170R4001 | | | 1 |
| 96 | I | 500 | 380/100 | 547907 | VLM1-TV-380-100/500/96 | 2CSG123200R4001 | | | 1 |
| 96 | I | 500 | 400/100 | 744603 | VLM1-TV-400-100/500/96 | 2CSG123210R4001 | | | 1 |
| 96 | I | 600 | 500/100 | 548003 | VLM1-TV-500-100/600/96 | 2CSG123220R4001 | | | 1 |
| 96 | I | 800 | 600/100 | 744702 | VLM1-TV-600-100/800/96 | 2CSG123230R4001 | | | 1 |
| 96 | I | 1100 | 1000/100 | 744801 | VLM1-TV-1000-100/1100/96 | 2CSG123240R4001 | | | 1 |

## Front-panel analogue voltmeters for direct current

| Size mm | Inser-tion | Scale V d.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 48 | D | 10 | 549307 | VLM-2-10/48 | 2CSG211040R4001 | | | 1 |
| 48 | D | 15 | 549406 | VLM-2-15/48 | 2CSG211050R4001 | | | 1 |
| 48 | D | 25 | 549505 | VLM-2-25/48 | 2CSG211070R4001 | | | 1 |
| 48 | D | 40 | 549604 | VLM-2-40/48 | 2CSG211090R4001 | | | 1 |
| 48 | D | 60 | 549703 | VLM-2-60/48 | 2CSG211110R4001 | | | 1 |
| 48 | D | 80 | 549802 | VLM-2-80/48 | 2CSG211120R4001 | | | 1 |
| 48 | D | 100 | 549901 | VLM-2-100/48 | 2CSG211130R4001 | | | 1 |
| 48 | D | 150 | 550006 | VLM-2-150/48 | 2CSG211150R4001 | | | 1 |
| 48 | D | 200 | 550105 | VLM-2-200/48 | 2CSG211160R4001 | | | 1 |
| 48 | D | 250 | 550204 | VLM-2-250/48 | 2CSG211180R4001 | | | 1 |
| 48 | D | 400 | 550303 | VLM-2-400/48 | 2CSG211210R4001 | | | 1 |
| 48 | D | 600 | 550402 | VLM-2-600/48 | 2CSG211230R4001 | | | 1 |

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type

# Energy efficiency
## Front-panel analogue instruments



VLM-2 96

| Size mm | Inser-tion | Scale V d.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 72 | D | 10 | 551003 | VLM-2-10/72 | 2CSG212040R4001 | | | 1 |
| 72 | D | 15 | 551102 | VLM-2-15/72 | 2CSG212050R4001 | | | 1 |
| 72 | D | 25 | 551201 | VLM-2-25/72 | 2CSG212070R4001 | | | 1 |
| 72 | D | 40 | 551300 | VLM-2-40/72 | 2CSG212090R4001 | | | 1 |
| 72 | D | 60 | 551409 | VLM-2-60/72 | 2CSG212110R4001 | | | 1 |
| 72 | D | 80 | 551508 | VLM-2-80/72 | 2CSG212120R4001 | | | 1 |
| 72 | D | 100 | 551607 | VLM-2-100/72 | 2CSG212130R4001 | | | 1 |
| 72 | D | 150 | 551706 | VLM-2-150/72 | 2CSG212150R4001 | | | 1 |
| 72 | D | 200 | 551805 | VLM-2-200/72 | 2CSG212160R4001 | | | 1 |
| 72 | D | 250 | 551904 | VLM-2-250/72 | 2CSG212180R4001 | | | 1 |
| 72 | D | 400 | 552000 | VLM-2-400/72 | 2CSG212210R4001 | | | 1 |
| 72 | D | 600 | 552109 | VLM-2-600/72 | 2CSG212230R4001 | | | 1 |

| Size mm | Inser-tion | Scale V d.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 96 | D | 10 | 552703 | VLM-2-10/96 | 2CSG213040R4001 | | | 1 |
| 96 | D | 15 | 552802 | VLM-2-15/96 | 2CSG213050R4001 | | | 1 |
| 96 | D | 25 | 552901 | VLM-2-25/96 | 2CSG213070R4001 | | | 1 |
| 96 | D | 40 | 553007 | VLM-2-40/96 | 2CSG213090R4001 | | | 1 |
| 96 | D | 60 | 553106 | VLM-2-60/96 | 2CSG213110R4001 | | | 1 |
| 96 | D | 80 | 553205 | VLM-2-80/96 | 2CSG213120R4001 | | | 1 |
| 96 | D | 100 | 553304 | VLM-2-100/96 | 2CSG213130R4001 | | | 1 |
| 96 | D | 150 | 553403 | VLM-2-150/96 | 2CSG213150R4001 | | | 1 |
| 96 | D | 200 | 553502 | VLM-2-200/96 | 2CSG213160R4001 | | | 1 |
| 96 | D | 250 | 553601 | VLM-2-250/96 | 2CSG213180R4001 | | | 1 |
| 96 | D | 400 | 553700 | VLM-2-400/96 | 2CSG213210R4001 | | | 1 |
| 96 | D | 600 | 553809 | VLM-2-600/96 | 2CSG213230R4001 | | | 1 |

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type



AMT1-A1 48

### Front-panel analogue ammeters for alternating current

| Size mm | Inser-tion | Scale A a.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 48 | D | 1 | 543107 | AMT1-A1-1/48 | 2CSG311020R4001 | | | 1 |
| 48 | D | 5 | 543206 | AMT1-A1-5/48 | 2CSG311030R4001 | | | 1 |
| 48 | D | 10 | 543305 | AMT1-A1-10/48 | 2CSG311040R4001 | | | 1 |
| 48 | D | 15 | 543404 | AMT1-A1-15/48 | 2CSG311050R4001 | | | 1 |
| 48 | D | 20 | 543503 | AMT1-A1-20/48 | 2CSG311060R4001 | | | 1 |
| 48 | D | 25 | 543602 | AMT1-A1-25/48 | 2CSG311070R4001 | | | 1 |
| 48 | D | 30 | 543701 | AMT1-A1-30/48 | 2CSG311080R4001 | | | 1 |
| 48 | D | 40 | 543800 | AMT1-A1-40/48 | 2CSG311090R4001 | | | 1 |
| 48 | I | SCL-A1 | 543909 | AMT1-A1/48 | 2CSG321250R4001 | | | 1 |
| 48 | I | SCL-A5 | 544005 | AMT1-A5/48 | 2CSG321260R4001 | | | 1 |

**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64




AMT1-A1 72

| Size | Inser-tion | Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm | | A a.c. | EAN | Type code | Order code | | kg | pc. |
| 72 | D | 1 | 545507 | AMT1-A1-1/72 | 2CSG312020R4001 | | | 1 |
| 72 | D | 5 | 545606 | AMT1-A1-5/72 | 2CSG312030R4001 | | | 1 |
| 72 | D | 10 | 545705 | AMT1-A1-10/72 | 2CSG312040R4001 | | | 1 |
| 72 | D | 15 | 545804 | AMT1-A1-15/72 | 2CSG312050R4001 | | | 1 |
| 72 | D | 20 | 545903 | AMT1-A1-20/72 | 2CSG312060R4001 | | | 1 |
| 72 | D | 25 | 546009 | AMT1-A1-25/72 | 2CSG312070R4001 | | | 1 |
| 72 | D | 30 | 546108 | AMT1-A1-30/72 | 2CSG312080R4001 | | | 1 |
| 72 | D | 40 | 546207 | AMT1-A1-40/72 | 2CSG312090R4001 | | | 1 |
| 72 | D | 50 | 546306 | AMT1-A1-50/72 | 2CSG312100R4001 | | | 1 |
| 72 | D | 60 | 546405 | AMT1-A1-60/72 | 2CSG312110R4001 | | | 1 |
| 72 | I | SCL-A1 | 546504 | AMT1-A1/72 | 2CSG322250R4001 | | | 1 |
| 72 | I | SCL-A5 | 546603 | AMT1-A5/72 | 2CSG322260R4001 | | | 1 |




AMT1-A1 96

| Size | Inser-tion | Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm | | A a.c. | EAN | Type code | Order code | | kg | pc. |
| 96 | D | 1 | 548102 | AMT1-A1-1/96 | 2CSG313020R4001 | | | 1 |
| 96 | D | 5 | 548201 | AMT1-A1-5/96 | 2CSG313030R4001 | | | 1 |
| 96 | D | 10 | 548300 | AMT1-A1-10/96 | 2CSG313040R4001 | | | 1 |
| 96 | D | 15 | 548409 | AMT1-A1-15/96 | 2CSG313050R4001 | | | 1 |
| 96 | D | 20 | 548508 | AMT1-A1-20/96 | 2CSG313060R4001 | | | 1 |
| 96 | D | 25 | 548607 | AMT1-A1-25/96 | 2CSG313070R4001 | | | 1 |
| 96 | D | 30 | 548706 | AMT1-A1-30/96 | 2CSG313080R4001 | | | 1 |
| 96 | D | 40 | 548805 | AMT1-A1-40/96 | 2CSG313090R4001 | | | 1 |
| 96 | D | 50 | 548904 | AMT1-A1-50/96 | 2CSG313100R4001 | | | 1 |
| 96 | D | 60 | 549000 | AMT1-A1-60/96 | 2CSG313110R4001 | | | 1 |
| 96 | I | SCL-A1 | 549109 | AMT1-A1/96 | 2CSG323250R4001 | | | 1 |
| 96 | I | SCL-A5 | 549208 | AMT1-A5/96 | 2CSG323260R4001 | | | 1 |

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type






AMT2-A2 48

## Front-panel analogue ammeters for direct current

| Size | Inser-tion | Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| mm | | A d.c. | EAN | Type code | Order code | | kg | pc. |
| 48 | D | 0,5 | 550501 | AMT2-A2-0,5/48 | 2CSG411010R4001 | | | 1 |
| 48 | D | 1 | 550600 | AMT2-A2-1/48 | 2CSG411020R4001 | | | 1 |
| 48 | D | 5 | 550709 | AMT2-A2-5/48 | 2CSG411030R4001 | | | 1 |
| 48 | D | 10 | 550808 | AMT2-A2-10/48 | 2CSG411040R4001 | | | 1 |
| 48 | I | SCL-A2 | 550907 | AMT2-A2/48 | 2CSG421270R4001 | | | 1 |

# Energy efficiency
## Front-panel analogue instruments




AMT2-A2 72

| Size mm | Inser-tion | Scale A d.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 72 | D | 0,5 | 552208 | AMT2-A2-0,5/72 | 2CSG412010R4001 | | | 1 |
| 72 | D | 1 | 552307 | AMT2-A2-1/72 | 2CSG412020R4001 | | | 1 |
| 72 | D | 5 | 552406 | AMT2-A2-5/72 | 2CSG412030R4001 | | | 1 |
| 72 | D | 10 | 552505 | AMT2-A2-10/72 | 2CSG412040R4001 | | | 1 |
| 72 | I | SCL-A2 | 552604 | AMT2-A2/72 | 2CSG422270R4001 | | | 1 |




AMT2-A2 96

| Size mm | Inser-tion | Scale A d.c. | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 96 | D | 0,5 | 553908 | AMT2-A2-0,5/96 | 2CSG413010R4001 | | | 1 |
| 96 | D | 1 | 554004 | AMT2-A2-1/96 | 2CSG413020R4001 | | | 1 |
| 96 | D | 5 | 554103 | AMT2-A2-5/96 | 2CSG413030R4001 | | | 1 |
| 96 | D | 10 | 554202 | AMT2-A2-10/96 | 2CSG413040R4001 | | | 1 |
| 96 | I | SCL-A2 | 554301 | AMT2-A2/96 | 2CSG423270R4001 | | | 1 |

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type

8

### Front-panel analogue frequency meters




FRZ 48

| Size mm | Inser-tion | Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 48 | D | 90° | 555605 | FRZ-90/48 | 2CSG811310R4001 | | | 1 |




FRZ 72

| Size mm | Inser-tion | Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 72 | D | 90° | 555704 | FRZ-90/72 | 2CSG812310R4001 | | | 1 |
| 72 | D | 240° | 555902 | FRZ-240/72 | 2CSG812320R4001 | | | 1 |




FRZ 96

| Size mm | Inser-tion | Scale | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 96 | D | 90° | 555803 | FRZ-90/96 | 2CSG813310R4001 | | | 1 |
| 96 | D | 240° | 556008 | FRZ-240/96 | 2CSG813320R4001 | | | 1 |

D: direct connection
I: indirect connection with VT, CT and shunt, according to the type

**Maybe you are also interested in:**
Current and voltage transformers
p.8/68 and p.8/81
Voltmetric and current switches p.8/64

# Energy efficiency
# Scales for front-panel analogue instrument



2CSC445111F0001

SCL

## Scales for front-panel analogue ammeters

**Scales 48 x 48 mm: SCL-A1 for AMT1-A1/48 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 769408 | SCL-A1-1/48 | 2CSG111010R5011 | | 0.010 | 10 |
| 5 | 769507 | SCL-A1-5/48 | 2CSG111021R5011 | | 0.010 | 10 |
| 10 | 769606 | SCL-A1-10/48 | 2CSG111032R5011 | | 0.010 | 10 |
| 15 | 769705 | SCL-A1-15/48 | 2CSG111054R5011 | | 0.010 | 10 |
| 20 | 769804 | SCL-A1-20/48 | 2CSG111075R5011 | | 0.010 | 10 |
| 25 | 769903 | SCL-A1-25/48 | 2CSG111096R5011 | | 0.010 | 10 |
| 30 | 770008 | SCL-A1-30/48 | 2CSG111107R5011 | | 0.010 | 10 |
| 40 | 770107 | SCL-A1-40/48 | 2CSG111128R5011 | | 0.010 | 10 |
| 50 | 770206 | SCL-A1-50/48 | 2CSG111149R5011 | | 0.010 | 10 |
| 60 | 770305 | SCL-A1-60/48 | 2CSG111159R5011 | | 0.010 | 10 |
| 80 | 770404 | SCL-A1-80/48 | 2CSG111179R5011 | | 0.010 | 10 |
| 100 | 560500 | SCL-A1-100/48 | 2CSG111189R5011 | | 0.010 | 10 |
| 150 | 560609 | SCL-A1-150/48 | 2CSG111209R5011 | | 0.010 | 10 |
| 200 | 560708 | SCL-A1-200/48 | 2CSG111229R5011 | | 0.010 | 10 |
| 250 | 560807 | SCL-A1-250/48 | 2CSG111249R5011 | | 0.010 | 10 |
| 300 | 560906 | SCL-A1-300/48 | 2CSG111259R5011 | | 0.010 | 10 |
| 400 | 561002 | SCL-A1-400/48 | 2CSG111279R5011 | | 0.010 | 10 |
| 500 | 561101 | SCL-A1-500/48 | 2CSG111299R5011 | | 0.010 | 10 |
| 600 | 561200 | SCL-A1-600/48 | 2CSG111309R5011 | | 0.010 | 10 |
| 800 | 561309 | SCL-A1-800/48 | 2CSG111329R5011 | | 0.010 | 10 |
| 1000 | 561408 | SCL-A1-1000/48 | 2CSG111339R5011 | | 0.010 | 10 |
| 1500 | 561507 | SCL-A1-1500/48 | 2CSG111359R5011 | | 0.010 | 10 |
| 2000 | 561606 | SCL-A1-2000/48 | 2CSG111379R5011 | | 0.010 | 10 |
| 2500 | 561705 | SCL-A1-2500/48 | 2CSG111389R5011 | | 0.010 | 10 |
| 3000 | 561804 | SCL-A1-3000/48 | 2CSG111399R5011 | | 0.010 | 10 |
| 4000 | 561903 | SCL-A1-4000/48 | 2CSG111409R5011 | | 0.010 | 10 |
| 5000 | 562009 | SCL-A1-5000/48 | 2CSG111419R5011 | | 0.010 | 10 |
| 6000 | 562108 | SCL-A1-6000/48 | 2CSG111429R5011 | | 0.010 | 10 |
| 8000 | 562207 | SCL-A1-8000/48 | 2CSG111439R5011 | | 0.010 | 10 |
| 10000 | 562306 | SCL-A1-10000/48 | 2CSG111449R5011 | | 0.010 | 10 |

# Energy efficiency
## Scales for front-panel analogue instrument




SCL

**Scales 48 x 48 mm: SCL-A5 for AMT1-A5/48 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 770503 | SCL-A5-1/48 | 2CSG121010R5011 | | 0.010 | 10 |
| 5 | 770602 | SCL-A5-5/48 | 2CSG121021R5011 | | 0.010 | 10 |
| 10 | 770701 | SCL-A5-10/48 | 2CSG121032R5011 | | 0.010 | 10 |
| 15 | 770800 | SCL-A5-15/48 | 2CSG121054R5011 | | 0.010 | 10 |
| 20 | 770909 | SCL-A5-20/48 | 2CSG121075R5011 | | 0.010 | 10 |
| 25 | 771005 | SCL-A5-25/48 | 2CSG121096R5011 | | 0.010 | 10 |
| 30 | 771104 | SCL-A5-30/48 | 2CSG121107R5011 | | 0.010 | 10 |
| 40 | 771203 | SCL-A5-40/48 | 2CSG121128R5011 | | 0.010 | 10 |
| 50 | 771302 | SCL-A5-50/48 | 2CSG121149R5011 | | 0.010 | 10 |
| 60 | 771401 | SCL-A5-60/48 | 2CSG121159R5011 | | 0.010 | 10 |
| 80 | 771500 | SCL-A5-80/48 | 2CSG121179R5011 | | 0.010 | 10 |
| 100 | 562405 | SCL-A5-100/48 | 2CSG121189R5011 | | 0.010 | 10 |
| 150 | 562504 | SCL-A5-150/48 | 2CSG121209R5011 | | 0.010 | 10 |
| 200 | 562603 | SCL-A5-200/48 | 2CSG121229R5011 | | 0.010 | 10 |
| 250 | 562702 | SCL-A5-250/48 | 2CSG121249R5011 | | 0.010 | 10 |
| 300 | 562801 | SCL-A5-300/48 | 2CSG121259R5011 | | 0.010 | 10 |
| 400 | 562900 | SCL-A5-400/48 | 2CSG121279R5011 | | 0.010 | 10 |
| 500 | 563006 | SCL-A5-500/48 | 2CSG121299R5011 | | 0.010 | 10 |
| 600 | 563105 | SCL-A5-600/48 | 2CSG121309R5011 | | 0.010 | 10 |
| 800 | 563204 | SCL-A5-800/48 | 2CSG121329R5011 | | 0.010 | 10 |
| 1000 | 563303 | SCL-A5-1000/48 | 2CSG121339R5011 | | 0.010 | 10 |
| 1500 | 563402 | SCL-A5-1500/48 | 2CSG121359R5011 | | 0.010 | 10 |
| 2000 | 563501 | SCL-A5-2000/48 | 2CSG121379R5011 | | 0.010 | 10 |
| 2500 | 563600 | SCL-A5-2500/48 | 2CSG121389R5011 | | 0.010 | 10 |
| 3000 | 563709 | SCL-A5-3000/48 | 2CSG121399R5011 | | 0.010 | 10 |
| 4000 | 563808 | SCL-A5-4000/48 | 2CSG121409R5011 | | 0.010 | 10 |
| 5000 | 563907 | SCL-A5-5000/48 | 2CSG121419R5011 | | 0.010 | 10 |
| 6000 | 564003 | SCL-A5-6000/48 | 2CSG121429R5011 | | 0.010 | 10 |
| 8000 | 564102 | SCL-A5-8000/48 | 2CSG121439R5011 | | 0.010 | 10 |
| 10000 | 564201 | SCL-A5-10000/48 | 2CSG121449R5011 | | 0.010 | 10 |




SCL

**Scales 72 x 72 mm: SCL-A1 for AMT1-A1/72 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 771609 | SCL-A1-1/72 | 2CSG112010R5011 | | 0.010 | 10 |
| 5 | 771708 | SCL-A1-5/72 | 2CSG112021R5011 | | 0.010 | 10 |
| 10 | 771807 | SCL-A1-10/72 | 2CSG112032R5011 | | 0.010 | 10 |
| 15 | 771906 | SCL-A1-15/72 | 2CSG112054R5011 | | 0.010 | 10 |
| 20 | 772002 | SCL-A1-20/72 | 2CSG112075R5011 | | 0.010 | 10 |
| 25 | 772101 | SCL-A1-25/72 | 2CSG112096R5011 | | 0.010 | 10 |
| 30 | 772200 | SCL-A1-30/72 | 2CSG112107R5011 | | 0.010 | 10 |
| 40 | 772309 | SCL-A1-40/72 | 2CSG112128R5011 | | 0.010 | 10 |
| 50 | 772408 | SCL-A1-50/72 | 2CSG112149R5011 | | 0.010 | 10 |
| 60 | 772507 | SCL-A1-60/72 | 2CSG112159R5011 | | 0.010 | 10 |
| 80 | 772606 | SCL-A1-80/72 | 2CSG112179R5011 | | 0.010 | 10 |
| 100 | 572305 | SCL-A1-100/72 | 2CSG112189R5011 | | 0.010 | 10 |
| 150 | 572404 | SCL-A1-150/72 | 2CSG112209R5011 | | 0.010 | 10 |
| 200 | 572503 | SCL-A1-200/72 | 2CSG112229R5011 | | 0.010 | 10 |
| 250 | 572602 | SCL-A1-250/72 | 2CSG112249R5011 | | 0.010 | 10 |
| 300 | 572701 | SCL-A1-300/72 | 2CSG112259R5011 | | 0.010 | 10 |
| 400 | 572800 | SCL-A1-400/72 | 2CSG112279R5011 | | 0.010 | 10 |
| 500 | 572909 | SCL-A1-500/72 | 2CSG112299R5011 | | 0.010 | 10 |
| 600 | 573005 | SCL-A1-600/72 | 2CSG112309R5011 | | 0.010 | 10 |
| 800 | 573104 | SCL-A1-800/72 | 2CSG112329R5011 | | 0.010 | 10 |
| 1000 | 573203 | SCL-A1-1000/72 | 2CSG112339R5011 | | 0.010 | 10 |
| 1500 | 573302 | SCL-A1-1500/72 | 2CSG112359R5011 | | 0.010 | 10 |
| 2000 | 573401 | SCL-A1-2000/72 | 2CSG112379R5011 | | 0.010 | 10 |
| 2500 | 573500 | SCL-A1-2500/72 | 2CSG112389R5011 | | 0.010 | 10 |
| 3000 | 573609 | SCL-A1-3000/72 | 2CSG112399R5011 | | 0.010 | 10 |
| 4000 | 573708 | SCL-A1-4000/72 | 2CSG112409R5011 | | 0.010 | 10 |
| 5000 | 573807 | SCL-A1-5000/72 | 2CSG112419R5011 | | 0.010 | 10 |
| 6000 | 573906 | SCL-A1-6000/72 | 2CSG112429R5011 | | 0.010 | 10 |
| 8000 | 574002 | SCL-A1-8000/72 | 2CSG112439R5011 | | 0.010 | 10 |
| 10000 | 574101 | SCL-A1-10000/72 | 2CSG112449R5011 | | 0.010 | 10 |

# Energy efficiency
## Scales for front-panel analogue instrument




SCL

**Scales 72 x 72 mm: SCL-A5 for AMT1-A5/72 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 772705 | SCL-A5-1/72 | 2CSG122010R5011 | | 0.010 | 10 |
| 5 | 772804 | SCL-A5-5/72 | 2CSG122021R5011 | | 0.010 | 10 |
| 10 | 772903 | SCL-A5-10/72 | 2CSG122032R5011 | | 0.010 | 10 |
| 15 | 773009 | SCL-A5-15/72 | 2CSG122054R5011 | | 0.010 | 10 |
| 20 | 773108 | SCL-A5-20/72 | 2CSG122075R5011 | | 0.010 | 10 |
| 25 | 773207 | SCL-A5-25/72 | 2CSG122096R5011 | | 0.010 | 10 |
| 30 | 773306 | SCL-A5-30/72 | 2CSG122107R5011 | | 0.010 | 10 |
| 40 | 773405 | SCL-A5-40/72 | 2CSG122128R5011 | | 0.010 | 10 |
| 50 | 773504 | SCL-A5-50/72 | 2CSG122149R5011 | | 0.010 | 10 |
| 60 | 773603 | SCL-A5-60/72 | 2CSG122159R5011 | | 0.010 | 10 |
| 80 | 773702 | SCL-A5-80/72 | 2CSG122179R5011 | | 0.010 | 10 |
| 100 | 574200 | SCL-A5-100/72 | 2CSG122189R5011 | | 0.010 | 10 |
| 150 | 574309 | SCL-A5-150/72 | 2CSG122209R5011 | | 0.010 | 10 |
| 200 | 574408 | SCL-A5-200/72 | 2CSG122229R5011 | | 0.010 | 10 |
| 250 | 574507 | SCL-A5-250/72 | 2CSG122249R5011 | | 0.010 | 10 |
| 300 | 574606 | SCL-A5-300/72 | 2CSG122259R5011 | | 0.010 | 10 |
| 400 | 574705 | SCL-A5-400/72 | 2CSG122279R5011 | | 0.010 | 10 |
| 500 | 574804 | SCL-A5-500/72 | 2CSG122299R5011 | | 0.010 | 10 |
| 600 | 574903 | SCL-A5-600/72 | 2CSG122309R5011 | | 0.010 | 10 |
| 800 | 575009 | SCL-A5-800/72 | 2CSG122329R5011 | | 0.010 | 10 |
| 1000 | 575108 | SCL-A5-1000/72 | 2CSG122339R5011 | | 0.010 | 10 |
| 1500 | 575207 | SCL-A5-1500/72 | 2CSG122359R5011 | | 0.010 | 10 |
| 2000 | 575306 | SCL-A5-2000/72 | 2CSG122379R5011 | | 0.010 | 10 |
| 2500 | 575405 | SCL-A5-2500/72 | 2CSG122389R5011 | | 0.010 | 10 |
| 3000 | 575504 | SCL-A5-3000/72 | 2CSG122399R5011 | | 0.010 | 10 |
| 4000 | 575603 | SCL-A5-4000/72 | 2CSG122409R5011 | | 0.010 | 10 |
| 5000 | 575702 | SCL-A5-5000/72 | 2CSG122419R5011 | | 0.010 | 10 |
| 6000 | 575801 | SCL-A5-6000/72 | 2CSG122429R5011 | | 0.010 | 10 |
| 8000 | 575900 | SCL-A5-8000/72 | 2CSG122439R5011 | | 0.010 | 10 |
| 10000 | 576006 | SCL-A5-10000/72 | 2CSG122449R5011 | | 0.010 | 10 |




SCL

**Scales 96 x 96 mm: SCL-A1 for AMT1-A1/96 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 773801 | SCL-A1-1/96 | 2CSG113010R5011 | | 0.010 | 10 |
| 5 | 773900 | SCL-A1-5/96 | 2CSG113021R5011 | | 0.010 | 10 |
| 10 | 774006 | SCL-A1-10/96 | 2CSG113032R5011 | | 0.010 | 10 |
| 15 | 774105 | SCL-A1-15/96 | 2CSG113054R5011 | | 0.010 | 10 |
| 20 | 774204 | SCL-A1-20/96 | 2CSG113075R5011 | | 0.010 | 10 |
| 25 | 774303 | SCL-A1-25/96 | 2CSG113096R5011 | | 0.010 | 10 |
| 30 | 774402 | SCL-A1-30/96 | 2CSG113107R5011 | | 0.010 | 10 |
| 40 | 774501 | SCL-A1-40/96 | 2CSG113128R5011 | | 0.010 | 10 |
| 50 | 774600 | SCL-A1-50/96 | 2CSG113149R5011 | | 0.010 | 10 |
| 60 | 774709 | SCL-A1-60/96 | 2CSG113159R5011 | | 0.010 | 10 |
| 80 | 774808 | SCL-A1-80/96 | 2CSG113179R5011 | | 0.010 | 10 |
| 100 | 584100 | SCL-A1-100/96 | 2CSG113189R5011 | | 0.010 | 10 |
| 150 | 584209 | SCL-A1-150/96 | 2CSG113209R5011 | | 0.010 | 10 |
| 200 | 584308 | SCL-A1-200/96 | 2CSG113229R5011 | | 0.010 | 10 |
| 250 | 584407 | SCL-A1-250/96 | 2CSG113249R5011 | | 0.010 | 10 |
| 300 | 584506 | SCL-A1-300/96 | 2CSG113259R5011 | | 0.010 | 10 |
| 400 | 584605 | SCL-A1-400/96 | 2CSG113279R5011 | | 0.010 | 10 |
| 500 | 584704 | SCL-A1-500/96 | 2CSG113299R5011 | | 0.010 | 10 |
| 600 | 584803 | SCL-A1-600/96 | 2CSG113309R5011 | | 0.010 | 10 |
| 800 | 584902 | SCL-A1-800/96 | 2CSG113329R5011 | | 0.010 | 10 |
| 1000 | 585008 | SCL-A1-1000/96 | 2CSG113339R5011 | | 0.010 | 10 |
| 1500 | 585107 | SCL-A1-1500/96 | 2CSG113359R5011 | | 0.010 | 10 |
| 2000 | 585206 | SCL-A1-2000/96 | 2CSG113379R5011 | | 0.010 | 10 |
| 2500 | 585305 | SCL-A1-2500/96 | 2CSG113389R5011 | | 0.010 | 10 |
| 3000 | 585404 | SCL-A1-3000/96 | 2CSG113399R5011 | | 0.010 | 10 |
| 4000 | 585503 | SCL-A1-4000/96 | 2CSG113409R5011 | | 0.010 | 10 |
| 5000 | 585602 | SCL-A1-5000/96 | 2CSG113419R5011 | | 0.010 | 10 |
| 6000 | 585701 | SCL-A1-6000/96 | 2CSG113429R5011 | | 0.010 | 10 |
| 8000 | 585800 | SCL-A1-8000/96 | 2CSG113439R5011 | | 0.010 | 10 |
| 10000 | 585909 | SCL-A1-10000/96 | 2CSG113449R5011 | | 0.010 | 10 |

# Energy efficiency
## Scales for front-panel analogue instrument




SCL

**Scales 96 x 96 mm: SCL-A5 for AMT1-A5/96 a.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A a.c. | EAN | Type code | Order code | | kg | pc. |
| 1 | 774907 | SCL-A5-1/96 | 2CSG123010R5011 | | 0.010 | 10 |
| 5 | 775003 | SCL-A5-5/96 | 2CSG123021R5011 | | 0.010 | 10 |
| 10 | 775102 | SCL-A5-10/96 | 2CSG123032R5011 | | 0.010 | 10 |
| 15 | 775201 | SCL-A5-15/96 | 2CSG123054R5011 | | 0.010 | 10 |
| 20 | 775300 | SCL-A5-20/96 | 2CSG123075R5011 | | 0.010 | 10 |
| 25 | 775409 | SCL-A5-25/96 | 2CSG123096R5011 | | 0.010 | 10 |
| 30 | 775508 | SCL-A5-30/96 | 2CSG123107R5011 | | 0.010 | 10 |
| 40 | 775607 | SCL-A5-40/96 | 2CSG123128R5011 | | 0.010 | 10 |
| 50 | 775706 | SCL-A5-50/96 | 2CSG123149R5011 | | 0.010 | 10 |
| 60 | 775805 | SCL-A5-60/96 | 2CSG123159R5011 | | 0.010 | 10 |
| 80 | 775904 | SCL-A5-80/96 | 2CSG123179R5011 | | 0.010 | 10 |
| 100 | 586005 | SCL-A5-100/96 | 2CSG123189R5011 | | 0.010 | 10 |
| 150 | 586104 | SCL-A5-150/96 | 2CSG123209R5011 | | 0.010 | 10 |
| 200 | 586203 | SCL-A5-200/96 | 2CSG123229R5011 | | 0.010 | 10 |
| 250 | 586302 | SCL-A5-250/96 | 2CSG123249R5011 | | 0.010 | 10 |
| 300 | 586401 | SCL-A5-300/96 | 2CSG123259R5011 | | 0.010 | 10 |
| 400 | 586500 | SCL-A5-400/96 | 2CSG123279R5011 | | 0.010 | 10 |
| 500 | 586609 | SCL-A5-500/96 | 2CSG123299R5011 | | 0.010 | 10 |
| 600 | 586708 | SCL-A5-600/96 | 2CSG123309R5011 | | 0.010 | 10 |
| 800 | 586807 | SCL-A5-800/96 | 2CSG123329R5011 | | 0.010 | 10 |
| 1000 | 586906 | SCL-A5-1000/96 | 2CSG123339R5011 | | 0.010 | 10 |
| 1500 | 587002 | SCL-A5-1500/96 | 2CSG123359R5011 | | 0.010 | 10 |
| 2000 | 587101 | SCL-A5-2000/96 | 2CSG123379R5011 | | 0.010 | 10 |
| 2500 | 587200 | SCL-A5-2500/96 | 2CSG123389R5011 | | 0.010 | 10 |
| 3000 | 587309 | SCL-A5-3000/96 | 2CSG123399R5011 | | 0.010 | 10 |
| 4000 | 587408 | SCL-A5-4000/96 | 2CSG123409R5011 | | 0.010 | 10 |
| 5000 | 587507 | SCL-A5-5000/96 | 2CSG123419R5011 | | 0.010 | 10 |
| 6000 | 587606 | SCL-A5-6000/96 | 2CSG123429R5011 | | 0.010 | 10 |
| 8000 | 587705 | SCL-A5-8000/96 | 2CSG123439R5011 | | 0.010 | 10 |
| 10000 | 587804 | SCL-A5-10000/96 | 2CSG123449R5011 | | 0.010 | 10 |




SCL

**Scales 48 x 48 mm: SCL-A2 for AMT2-A2/48 d.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A d.c. | EAN | Type code | Order code | | kg | pc. |
| 20 | 595908 | SCL-A2-20/48 | 2CSG231075R5011 | | 0.010 | 10 |
| 100 | 596004 | SCL-A2-100/48 | 2CSG231189R5011 | | 0.010 | 10 |
| 150 | 596103 | SCL-A2-150/48 | 2CSG231209R5011 | | 0.010 | 10 |
| 200 | 596202 | SCL-A2-200/48 | 2CSG231229R5011 | | 0.010 | 10 |
| 250 | 596301 | SCL-A2-250/48 | 2CSG231249R5011 | | 0.010 | 10 |
| 300 | 596400 | SCL-A2-300/48 | 2CSG231259R5011 | | 0.010 | 10 |
| 400 | 596509 | SCL-A2-400/48 | 2CSG231279R5011 | | 0.010 | 10 |
| 500 | 596608 | SCL-A2-500/48 | 2CSG231299R5011 | | 0.010 | 10 |
| 600 | 596707 | SCL-A2-600/48 | 2CSG231309R5011 | | 0.010 | 10 |
| 800 | 596806 | SCL-A2-800/48 | 2CSG231329R5011 | | 0.010 | 10 |
| 1000 | 596905 | SCL-A2-1000/48 | 2CSG231339R5011 | | 0.010 | 10 |

**Scales 72 x 72 mm: SCL-A2 for AMT2-A2/72 d.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A d.c. | EAN | Type code | Order code | | kg | pc. |
| 20 | 597001 | SCL-A2-20/72 | 2CSG232075R5011 | | 0.010 | 10 |
| 100 | 597100 | SCL-A2-100/72 | 2CSG232189R5011 | | 0.010 | 10 |
| 150 | 597209 | SCL-A2-150/72 | 2CSG232209R5011 | | 0.010 | 10 |
| 200 | 597308 | SCL-A2-200/72 | 2CSG232229R5011 | | 0.010 | 10 |
| 250 | 597407 | SCL-A2-250/72 | 2CSG232249R5011 | | 0.010 | 10 |
| 300 | 597506 | SCL-A2-300/72 | 2CSG232259R5011 | | 0.010 | 10 |
| 400 | 597605 | SCL-A2-400/72 | 2CSG232279R5011 | | 0.010 | 10 |
| 500 | 597704 | SCL-A2-500/72 | 2CSG232299R5011 | | 0.010 | 10 |
| 600 | 597803 | SCL-A2-600/72 | 2CSG232309R5011 | | 0.010 | 10 |
| 800 | 597902 | SCL-A2-800/72 | 2CSG232329R5011 | | 0.010 | 10 |
| 1000 | 598008 | SCL-A2-1000/72 | 2CSG232339R5011 | | 0.010 | 10 |

**Scales 96 x 96 mm: SCL-A2 for AMT2-A2/96 d.c. ammeters**

| Scale | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| A d.c. | EAN | Type code | Order code | | kg | pc. |
| 20 | 598107 | SCL-A2-20/96 | 2CSG233075R5011 | | 0.010 | 10 |
| 100 | 598206 | SCL-A2-100/96 | 2CSG233189R5011 | | 0.010 | 10 |
| 150 | 598305 | SCL-A2-150/96 | 2CSG233209R5011 | | 0.010 | 10 |
| 200 | 598404 | SCL-A2-200/96 | 2CSG233229R5011 | | 0.010 | 10 |
| 250 | 598503 | SCL-A2-250/96 | 2CSG233249R5011 | | 0.010 | 10 |
| 300 | 598602 | SCL-A2-300/96 | 2CSG233259R5011 | | 0.010 | 10 |
| 400 | 598701 | SCL-A2-400/96 | 2CSG233279R5011 | | 0.010 | 10 |
| 500 | 598800 | SCL-A2-500/96 | 2CSG233299R5011 | | 0.010 | 10 |
| 600 | 598909 | SCL-A2-600/96 | 2CSG233309R5011 | | 0.010 | 10 |
| 800 | 599005 | SCL-A2-800/96 | 2CSG233329R5011 | | 0.010 | 10 |
| 1000 | 599104 | SCL-A2-1000/96 | 2CSG233339R5011 | | 0.010 | 10 |

# Energy efficiency
## Voltmetric and current switches




MCV

| Technical features | | |
|---|---|---|
| Insulation voltage | [V] | 600 |
| Rated thermal current | [A] | 12 |
| Mechanic operations | [No.] | 1000000 |
| Power consumption | [VA] | 0.23 |
| Modules | [No.] | 3 |

### MCV - MCA voltmetric and current switches

Cam rotary switches are suitable for mounting on EN 50022 rail. In three-phase systems they enable the use of a single measurement instrument (single-phase) for viewing the current or voltage value set through the switch itself.




MCA

**Voltmeter switches**

| Range | Power loss | Bbn 7392696 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| L1, L2, L3 | 0.5 | 52246 9 | MCV 4 | 1SCA 022 404 R4740 | | 0.095 | 1 |
| L1, L2, L3, N | 0.5 | 52243 8 | MCV 7 | 1SCA 022 647 R7840 | | 0.110 | 1 |

8




QCA 48

**Current switches**

| Range | Power loss | Bbn 7392696 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | W | EAN | Type code | Order code | | kg | pc. |
| 0-1-2-3 | 0.5 | 52245 2 | MCA 4 | 1SCA 022 404 R4821 | | 0.110 | 1 |

### Front panel QCV - QCA voltage and current switches

For use in three-phase systems, to allow a single device to measure the voltage and current settings adjusted by the switches.




QCV 48

| Measure | Position | Bbn 7392696 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | | EAN | Type code | Order code | | kg | pc. |
| Voltage | 4 | 527990 | QCV-4/48 | 1SCA022780R0770 | | 0.150 | 1 |
| Current | 4 | 528003 | QCA-4/48 | 1SCA022780R0690 | | 0.150 | 1 |
| Voltage | 7 | 527983 | QCV-7/48 | 1SCA022780R0850 | | 0.150 | 1 |

# Energy efficiency
# E 233 hour counters



E 233

| Technical features | | |
|---|---|---|
| | AC equipment | DC equipment |
| Rated voltage | 50 Hz: 24 V, 230 V<br>60 Hz: 24 V, 120 V, 240 V | DC 12 V ... 48 V |
| Voltage tolerance | ±15 % | ±10 % |
| Power consumption | 1.5 VA | ca. 20 mW (at 12 V DC) |
| Ambient temperature | –15 °C/5 °F... +50 °C/122 °F | –10 °C/14 °F ... +50 °C/122 °F |
| Counting capacity | 99.999 h | 99.999 h |
| Reading accuracy | 0.01 h | 0.1 h |
| Operation display | fast running | LED blinking |
| Protection against electric shock | according to DIN VDE 0106<br>Part 100 (BGV A2) | according to DIN VDE 0106<br>Part 100 (BGV A2) |
| Terminal size | up to 10 $mm^2$ | up to 10 $mm^2$ |

## E 233 electro-mechanical hour counters

Hour counters are used to record operating times as well as to determine idle times and off times of industrial machinery and plant, for commercial purposes or in domestic installations. No reset functionality.

| Rated voltage | Bbn 4012233 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| AC 230 V/50 Hz | 63000 4 | E 233-230 | 2CDE100000R1601 | | 0.05 | 10 |
| AC 24 V/50 Hz | 63010 3 | E 233-24 | 2CDE400000R1601 | | 0.05 | 10 |
| DC 12 V ... 48 V | 63020 2 | E 233-12/48 | 2CDE300010R1601 | | 0.05 | 10 |
| AC 240 V/60 Hz | 36590 1 ① | E 233-240/60 Hz | 2CDE100021R1601 | | 0.05 | 10 |
| AC 120 V/60 Hz | 36600 7 ① | E 233-120/60 Hz | 2CDE600021R1601 | | 0.05 | 10 |
| AC 24 V/60 Hz | 36610 6 ① | E 233- 24/60 Hz | 2CDE400021R1601 | | 0.05 | 10 |

① Bbn No. 4016779

# Energy efficiency
## HMT hour counters



HMT

| Technical features | | |
|---|---|---|
| Rated voltage Un | [V] | a.c. 24<br>a.c. 110<br>a.c. 230 |
| Displayed digits (in hours) | [n°] | 99,999.9 (for HMT1 and HMT11) |
| Accuracy class | [%] | 0.5 |
| Frequency | [Hz] | 50 |
| Power consumption | [W] | 1.1...2.2 |
| Modules | [No.] | 2 |

### HMT electro-mechanical hour counters

Equipped with 7-digit indicator (99.999,99) and available in two modules. They cannot be reset.

| Rated voltage | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| V AC | EAN | Type code | Order code | | kg | pc. |
| 24 | 030300 | HMT 1/24 | 2CSM111000R1601 | | 0.200 | 6 |
| 110 | 030409 | HMT 1/110 | 2CSM121000R1601 | | 0.200 | 6 |
| 220 | 030508 | HMT 1/220 | 2CSM131000R1601 | | 0.200 | 6 |
| 230 | 030607 | HMT 11 | 2CSM133000R1601 | | 0.200 | 1 |

# Energy efficiency
## TMD temperature control units



TMD

| Technical features | | | |
|---|---|---|---|
| Auxiliary supply | Alternating current | [V] | 20÷250 ±15% |
| | Direct current | [Hz] | 115-230-400 50-60 |
| Power consumption | | [VA] | 4 max |
| Input | Sensor | | PT100 RTD (not included) |
| | Type | | 3 wires (2 and 4 wires types are also supported) |
| | Error | | 1 degree every 0,39 Ω |
| | Measure range | [°C] | 0...220 ± 2 |
| | Compensation | [Ω] | 20 max |
| | Trip delay/hysteresis | [s/°C] | 5/2 |
| Output | Number | | 4 |
| | Type | | NO-CO-NC |
| | Vmax | [V] | 12 d.c. |
| | Imax | [A] | 8 (resistive load) |
| | Functions | | Alarm, trip, cooling, auto-test |
| | Programmable functions | | Alarm, tip, hold, fan, temp. max |
| Display | | | 7 segments LED |
| Connections | Terminals | | removable screw |
| | Max section | [mm²] | 2.5 |
| Insulation voltage | | [V] | 2500/50 Hz - 1 min |
| Protection degree | Front | | IP52 |
| | Rear | | IP20 |
| Operation temperature | | [°C] | -10...+55, relative humidity max 90% |
| Storage temperature | | [°C] | -25...+80 |
| Reference | | | IEC EN 50081-2, IEC EN 50082-2, IEC EN 60255 |

### Temperature control units

TMD are used measure and control the temperature levels and efficiency of electric machines, power transformers, motors, etc.
The temperature is measured by four PT100 type sensors. Each measuring channel has two programmable alarm thresholds which trip two output relays to remotely signal that a critical temperature has been reached.
The measured values and any alarm conditions are shown on the dual 3-digit display on the front of the device, which also has five programming keys for configuring its operation.
The control unit is also able to store in memory maximum values and a log of all trip-events.

| Temperature measured | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 4 | 560203 | TMD-4/96 | 2CSG524000R2021 | | 0.8 | 1 |

**Where to find more:**
Technical details for TMD:
Chapter 8 of
Solutions for electrical distribution in buildings - technical details

# Energy efficiency
## Current transformers selection table

**Breaker choice**

| | | |
|---|---|---|
| Modular | S200, S280, S290, S700, S750DR, S800 | |
| Tmax | XT1, XT2, XT3, XT4, T4320 | T5 |
| Emax | | |

**Installation choice**

| Fixing system | DIN rail | DIN rail | DIN rail, cable or bus bar | | Bus bar | DIN rail, cable or bus bar, base mounted with feet | |
|---|---|---|---|---|---|---|---|
| |  |  |  | |  |  | |
| Rated current (A) | **CTA** | **TRF M** | **CT PRO XT** | | **CT30** | **CT MAX** | |
| | | | Standard | SELV version | | Standard | SELV version |
| 5 | **2CSG111020R1141** CTA/5 | | | | | | |
| 10 | **2CSG111030R1141** CTA/10 | | | | | | |
| 15 | **2CSG111040R1141** CTA/15 | | | | | | |
| 20 | **2CSG111050R1141** CTA/20 | | | | | | |
| 25 | **2CSG111060R1141** CTA/25 | | | | | | |
| 40 | **2CSG111080R1141** CTA/40 (cl. 0.5) | **2CSM100050R1111** TRFM/40 | **2CSG225745R1101** CT PRO XT 40 | **2CSG225845R1101** CT PRO XT 40 SELV | | | |
| 50 | **2CSG111090R1141** CTA/50 (cl. 0.5) | | **2CSG225755R1101** CT PRO XT 50 | **2CSG225855R1101** CT PRO XT 50 SELV | | | |
| 60 | **2CSG111100R1141** CTA/60 (cl. 0.5) | **2CSM100070R1111** TRFM/60 (cl. 1) | **2CSG225765R1101** CT PRO XT 60 | **2CSG225865R1101** CT PRO XT 60 SELV | | | |
| 80 | **2CSG111110R1141** CTA/80 (cl. 0.5) | | **2CSG225775R1101** CT PRO XT 80 | **2CSG225875R1101** CT PRO XT 80 SELV | | | |
| 100 | **2CSG111120R1141** CTA/100 (cl. 0.5) | **2CSM100090R1111** TRFM/100 | **2CSG225785R1101** CT PRO XT 100 | **2CSG225885R1101** CT PRO XT 100 SELV | **2CSG101100R1101** CT30/100 (cl. 3) | | |
| 150 | | **2CSM100100R1111** TRFM/150 | **2CSG225795R1101** CT PRO XT 150 | **2CSG225895R1101** CT PRO XT 150 SELV | **2CSG101110R1101** CT30/150 (cl. 3) | | |
| 200 | | | **2CSG225805R1101** CT PRO XT 200 | **2CSG225905R1101** CT PRO XT 200 SELV | | | |
| 250 | | **2CSM100120R1111** TRFM/250 | **2CSG225815R1101** CT PRO XT 250 | **2CSG225915R1101** CT PRO XT 250 SELV | **2CSG101130R1101** CT30/250 | | |
| 300 | | | **2CSG225825R1101** CT PRO XT 300 | **2CSG225925R1101** CT PRO XT 300 SELV | | **2CSG225945R1101** CT MAX 300 | **2CSG226005R1101** CT MAX 300 SELV |
| 400 | | **2CSM100140R1111** TRFM/400 | **2CSG225835R1101** CT PRO XT 400 | **2CSG225935R1101** CT PRO XT 400 SELV | **2CSG101150R1101** CT30/400 | **2CSG225955R1101** CT MAX 400 | **2CSG226015R1101** CT MAX 400 SELV |
| 500 | | | | | | **2CSG225965R1101** CT MAX 500 | **2CSG226025R1101** CT MAX 500 SELV |
| 600 | | **2CSM100160R1111** TRFM/600 | | | | **2CSG225975R1101** CT MAX 600 | **2CSG226035R1101** CT MAX 600 SELV |
| 800 | | | | | | **2CSG225985R1101** CT MAX 800 | **2CSG226045R1101** CT MAX 800 SELV |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | T6,T7 | | T6,T7 | | | | |
| | E1.2, E2.2, E4.2 | | | E2, E3, E4, E6 | E2.2, E4.2, E6.2 | E2.2, E4.2 | E1.2 |
| | | | | Bus bar | DIN rail, cable or bus bar, base mounted with feet | | Bus bar |
| |  |  |  |  |  |  |  |
| | **CT6** | **CT8** | **CT8V** | **CT80** | **CT12** | **CT12V** | **CT120** |

| | | | | | | | | Class |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0,5 |
| | | | | | | | | 0,5 |
| | | | | | | | | 0,5 |
| | | | | | | | | 0,5 |
| | | | | | | | | 0,5 |
| | | | | | | | | 3 |
| | | | | | | | | 3 |
| | | | | | | | | 3 |
| | | | | | | | | 3 |
| | | | | | | | | 1 |
| | | | | | | | | 0,5 |
| | | | | | | | | 0,5 |
| | **2CSG421130R1101** CT6/250 | | | **2CSG201130R1101** CT80/250 | | | | 0,5 |
| | **2CSG421140R1101** CT6/300 | **2CSG521140R1101** CT8/300 | | | | | | 0,5 |
| | **2CSG421150R1101** CT6/400 | **2CSG521150R1101** CT8/400 | **2CSG631150R1101** CT8-V/400 | **2CSG201150R1101** CT80/400 | | | **2CSG401150R1101** CT120/400 | 0,5 |
| | **2CSG421160R1101** CT6/500 | **2CSG521160R1101** CT8/500 | **2CSG631160R1101** CT8-V/500 | **2CSG201160R1101** CT80/500 | **2CSG721160R1101** CT12/500 | | **2CSG401160R1101** CT120/500 | 0,5 |
| | **2CSG421170R1101** CT6/600 | **2CSG521170R1101** CT8/600 | **2CSG631170R1101** CT8-V/600 | **2CSG201170R1101** CT80/600 | **2CSG721170R1101** CT12/600 | | **2CSG401170R1101** CT120/600 | 0,5 |
| | **2CSG421180R1101** CT6/800 | **2CSG521180R1101** CT8/800 | **2CSG631180R1101** CT8-V/800 | **2CSG201180R1101** CT80/800 | **2CSG721180R1101** CT12/800 | **2CSG831180R1101** CT12-V/800 | **2CSG401180R1101** CT120/800 | 0,5 |

# Energy efficiency
## Current transformers selection table

**Breaker choice**

| | | |
|---|---|---|
| Modular | S200, S280, S290, S700, S750DR, S800 | |
| Tmax | XT1, XT2, XT3, XT4, T4320 | T5 |
| Emax | | |

**Installation choice**

| Fixing system | DIN rail | DIN rail | DIN rail, cable or bus bar | | Bus bar | DIN rail, cable or bus bar, base mounted with feet | |
|---|---|---|---|---|---|---|---|
| |  |  |  | |  |  | |
| Rated current (A) | **CTA** | **TRF M** | **CT PRO XT** | | **CT30** | **CT MAX** | |
| | | | Standard | SELV version | | Standard | SELV version |
| 1000 | | | | | | **2CSG225995R1101** CT MAX 1000 | **2CSG226055R1101** CT MAX 1000 SELV |
| 1200 | | | | | | | |
| 1250 | | | | | | | |
| 1500 | | | | | | | |
| 2000 | | | | | | | |
| 2500 | | | | | | | |
| 3000 | | | | | | | |
| 4000 | | | | | | | |
| 5000 | | | | | | | |
| 6000 | | | | | | | |

**Primary choice**

| | **CTA** | **TRF M** | **CT PRO XT** | | **CT30** | **CT MAX** | |
|---|---|---|---|---|---|---|---|
| | Wound primary | Through primary | | | Split core trough primary | Through primary | |
| Through | 8 | 29 | 18 | 18 | – | 30 | 30 |
| primary max | – | – | 20x10 | 20x10 | – | 30x15; 40x10 | 30x15; 40x10 |
| section [mm] | – | – | – | – | 3x80x10 | – | – |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | T6,T7 | | T6,T7 | | | | |
| | E1.2, E2.2, E4.2 | | | E2, E3, E4, E6 | E2.2, E4.2, E6.2 | E2.2, E4.2 | E1.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Bus bar | DIN rail, cable or bus bar, base mounted with feet | | Bus bar | |
| |  |  |  |  |  |  |  | |
| | **CT6** | **CT8** | **CT8V** | **CT80** | **CT12** | **CT12V** | **CT120** | Class |
| | **2CSG421190R1101** CT6/1000 | **2CSG521190R1101** CT8/1000 | **2CSG631190R1101** CT8-V/1000 | **2CSG201190R1101** CT80/1000 | **2CSG721190R1101** CT12/1000 | **2CSG831190R1101** CT12-V/1000 | **2CSG401190R1101** CT120/1000 | 0,5 |
| | **2CSG421200R1101** CT6/1200 | **2CSG521200R1101** CT8/1200 | **2CSG631200R1101** CT8-V/1200 | | **2CSG721200R1101** CT12/1200 | **2CSG831200R1101** CT12-V/1200 | **2CSG401200R1101** CT120/1200 | 0,5 |
| | | | | | | **2CSG831210R1101** CT12-V/1250 | | 0,5 |
| | **2CSG421220R1101** CT6/1500 | **2CSG521220R1101** CT8/1500 | **2CSG631220R1101** CT8-V/1500 | | **2CSG721220R1101** CT12/1500 | **2CSG831220R1101** CT12-V/1500 | **2CSG401220R1101** CT120/1500 | 0,5 |
| | **2CSG421230R1101** CT6/2000 | **2CSG521230R1101** CT8/2000 | **2CSG631230R1101** CT8-V/2000 | **2CSG301230R1101** CT80/2000 | **2CSG721230R1101** CT12/2000 | **2CSG831230R1101** CT12-V/2000 | | 0,5 |
| | **2CSG421240R1101** CT6/2500 | **2CSG521240R1101** CT8/2500 | **2CSG631240R1101** CT8-V/2500 | **2CSG301240R1101** CT80/2500 | **2CSG721240R1101** CT12/2500 | **2CSG831240R1101** CT12-V/2500 | | 0,5 |
| | | **2CSG521250R1101** CT8/3000 | | | **2CSG721250R1101** CT12/3000 | **2CSG831250R1101** CT12-V/3000 | | 0,5 |
| | | | | | **2CSG721260R1101** CT12/4000 | **2CSG831260R1101** CT12-V/4000 | | 0,5 |
| | | | | | **2CSG721270R1101** CT12/5000 | | | 0,5 |
| | | | | | **2CSG721280R1101** CT12/6000 | | | 0,5 |

| | **CT6** | **CT8** | **CT8V** | **CT80** | **CT12** | **CT12V** | **CT120** |
|---|---|---|---|---|---|---|---|
| | Through primary | | | Split core trough primary | Through primary | | Split core trough primary |
| | 50 | 2x30 | 2x35 | – | 2x50 | 3x35 | – |
| | 60x20 | 80x30 | – | – | 80x50; 100x50; 125x50 | – | – |
| | – | – | 80x30; 3x80x5 | 2x30x10 | – | 125x30, 3x100x10, 4x100x5, 4x125x5 | 4x120x10 |

# Energy efficiency
## CT measurement current transformers with through primary



CT

| Technical features | | | | |
|---|---|---|---|---|
| | | CT... | CTO | TRFM |
| Standard secondary current | [A] | 5 A | | |
| Max. voltage for operation | [kV] | 1,2 | | |
| Test voltage | [kV] | 3 a 50 Hz/1min | | |
| Residual current voltage at secundary terminals when security circuit intervenes (only SELV versions) | | < 25 V rms | | |
| Short circuit rated thermal current | [IpN] | 40 per 1 sec. | 60 per 1 sec. | 40 per 1 sec. |
| Short circuit rated dynamic current | [Ith] | 2,5 per 1 sec. | | |
| Permanent overload | [IpN] | 1,2 | | |
| Safety factor | [Fs] | from ≤ 2 to ≤ 10 depending on the type and capacity | | |
| Frequency | [Hz] | 50-60 | | |
| Air insulation class | | Class E | B | E |
| Terminals | | primary P1 - P2 (K - L); secondary s1 - s2 (k - l) | | |
| | | P1 (K) primary winding input | | |
| | | s1 (k) secondary winding input | | |
| | | P2 (L) primary winding output | | |
| | | s2 (l) secondary winding output | | |
| Housing | | Self-extinguishing thermoplastic resin V0 | | |
| Protection degree | | IP30 | IP20 | IP20 |
| Operating temperature | [°C] | -5...+50 | -5...+50 | -25...+50 |
| Max. temperature on bars | [°C] | 70°C | | |
| Storage temperature | [°C] | -20...+80 | -20...+80 | -40...+80 |
| Relative humidity | | 80% | | |
| Reference standard | | IEC EN 60044-1, IEC EN 61010-1 | | |
| Secondary protection circuit reference standards (only SELV versions) | | IEC60364; IEC473.1.4; IEC556.3; CEI64-8-4; | | |
| | | CEI411.1.4.3; CEI411.5.2; CEI411.2; CEI473.1.4; CEI473.2.3 | | |

### CT and CTA current transformers

Used to transform primary currents (max. 6000 A) into .../5 A low secondary currents indirectly supplying power to analogue and digital measurement devices. They are available both with wound and through primary. In the first case they are provided along with the bar or the primary terminal; in the second case they have a hole to insert in the bar or the cable which forms the primary.

The rated current to the secondary windings is 5 A, in line with the offer of measuring devices. CT ../1 are not employable with ABB mono-function and multifunction measuring devices. The use of CT ../1 is needed in case of long wirings from CT secondary windings to the measuring device; nowadays, the wide use of communication protocols doesn't require the instrument to be installed far from the line to measure.

The new SELV versions of the CT PRO XT and CT MAX guarantee maximum safety against overvoltage and switchboard internal overheating thanks to the innovative electronic protection circuit which automatically short-circuit the CT secondary winding in case of accidental disconnection of its secondary terminals.

**Maybe you are also interested in:**
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Energy meters p.8/16
Analogue and digital instrument p.8/42




CT PRO XT

## Standard type current transformers .../5 A with through primary

**CT PRO XT .../5 A series, through primary**

| Primary rated current Iprim A | Accuracy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 40 | 3 | 2 | 257455 | CT PRO XT 40 | 2CSG225745R1101 | | 0.32 | 1 |
| 50 | 3 | 2 | 257554 | CT PRO XT 50 | 2CSG225755R1101 | | 0.32 | 1 |
| 60 | 3 | 2 | 257653 | CT PRO XT 60 | 2CSG225765R1101 | | 0.32 | 1 |
| 80 | 3 | 2 | 257752 | CT PRO XT 80 | 2CSG225775R1101 | | 0.32 | 1 |
| 100 | 1 | 3 | 257851 | CT PRO XT 100 | 2CSG225785R1101 | | 0.32 | 1 |
| 150 | 1 | 5 | 257950 | CT PRO XT 150 | 2CSG225795R1101 | | 0.32 | 1 |
| 200 | 1 | 5 | 258056 | CT PRO XT 200 | 2CSG225805R1101 | | 0.32 | 1 |
| 250 | 0.5 | 5 | 258155 | CT PRO XT 250 | 2CSG225815R1101 | | 0.32 | 1 |
| 300 | 0.5 | 5 | 258155 | CT PRO XT 300 | 2CSG225825R1101 | | 0.32 | 1 |
| 400 | 0.5 | 5 | 258353 | CT PRO XT 400 | 2CSG225835R1101 | | 0.32 | 1 |

**CT PRO XT SELV .../5 A series, through primary**

| Primary rated current Iprim A | Accuracy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 40 | 3 | 2 | 258452 | CT PRO XT 40 SELV | 2CSG225845R1101 | | 0.37 | 1 |
| 50 | 3 | 2 | 258551 | CT PRO XT 50 SELV | 2CSG225855R1101 | | 0.37 | 1 |
| 60 | 3 | 2 | 258650 | CT PRO XT 60 SELV | 2CSG225865R1101 | | 0.37 | 1 |
| 80 | 3 | 2 | 258650 | CT PRO XT 80 SELV | 2CSG225875R1101 | | 0.37 | 1 |
| 100 | 1 | 3 | 258858 | CT PRO XT 100 SELV | 2CSG225885R1101 | | 0.37 | 1 |
| 150 | 1 | 5 | 258957 | CT PRO XT 150 SELV | 2CSG225895R1101 | | 0.37 | 1 |
| 200 | 1 | 5 | 259053 | CT PRO XT 200 SELV | 2CSG225905R1101 | | 0.37 | 1 |
| 250 | 0.5 | 5 | 259152 | CT PRO XT 250 SELV | 2CSG225915R1101 | | 0.37 | 1 |
| 300 | 0.5 | 5 | 259251 | CT PRO XT 300 SELV | 2CSG225925R1101 | | 0.37 | 1 |
| 400 | 0.5 | 5 | 259350 | CT PRO XT 400 SELV | 2CSG225935R1101 | | 0.37 | 1 |

**CT PRO XT series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | 18 |
| horizontal bar | ▭ | 20x10 |
| vertical bar | ▯ | - |

# Energy efficiency
## CT measurement current transformers with through primary



CT MAX

| CT MAX .../5 A series, through primary | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
| 300 | 0,5 | 4 | 259459 | CT MAX 300 | 2CSG225945R1101 | | 0,32 | 1 |
| 400 | 0,5 | 5 | 259558 | CT MAX 400 | 2CSG225955R1101 | | 0,32 | 1 |
| 500 | 0,5 | 6 | 259558 | CT MAX 500 | 2CSG225965R1101 | | 0,32 | 1 |
| 600 | 0,5 | 10 | 259657 | CT MAX 600 | 2CSG225975R1101 | | 0,32 | 1 |
| 800 | 0,5 | 10 | 259657 | CT MAX 800 | 2CSG225985R1101 | | 0,32 | 1 |
| 1000 | 0,5 | 10 | 259954 | CT MAX 1000 | 2CSG225995R1101 | | 0,32 | 1 |

| CT MAX SELV .../5 A series, through primary | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
| 300 | 0,5 | 4 | 260059 | CT MAX 300 SELV | 2CSG226005R1101 | | 0,37 | 1 |
| 400 | 0,5 | 5 | 260158 | CT MAX 400 SELV | 2CSG226015R1101 | | 0,37 | 1 |
| 500 | 0,5 | 6 | 260257 | CT MAX 500 SELV | 2CSG226025R1101 | | 0,37 | 1 |
| 600 | 0,5 | 10 | 260356 | CT MAX 600 SELV | 2CSG226035R1101 | | 0,37 | 1 |
| 800 | 0,5 | 10 | 260455 | CT MAX 800 SELV | 2CSG226045R1101 | | 0,37 | 1 |
| 1000 | 0,5 | 10 | 260554 | CT MAX 1000 SELV | 2CSG226055R1101 | | 0,37 | 1 |

| CT MAX series Through primary | | max section [mm] |
|---|---|---|
| cable | ◯ | 30 |
| horizontal bar | ▭ | 30x15, 40x10 |
| vertical bar | ▯ | - |

8

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Energy meters p.8/16
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CT6




CT8




CT8/V

**CT6 .../5 A series, through primary**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 250 | 0.5 | 5 | 605508 | CT6/250 | 2CSG421130R1101 | | 1.000 | 1 |
| 300 | 0.5 | 5 | 605607 | CT6/300 | 2CSG421140R1101 | | 1.000 | 1 |
| 400 | 0.5 | 6 | 605706 | CT6/400 | 2CSG421150R1101 | | 1.000 | 1 |
| 500 | 0.5 | 6 | 605805 | CT6/500 | 2CSG421160R1101 | | 1.000 | 1 |
| 600 | 0.5 | 10 | 605904 | CT6/600 | 2CSG421170R1101 | | 1.000 | 1 |
| 800 | 0.5 | 10 | 606000 | CT6/800 | 2CSG421180R1101 | | 1.000 | 1 |
| 1000 | 0.5 | 20 | 606109 | CT6/1000 | 2CSG421190R1101 | | 1.000 | 1 |
| 1200 | 0.5 | 20 | 606208 | CT6/1200 | 2CSG421200R1101 | | 1.000 | 1 |
| 1500 | 0.5 | 30 | 606307 | CT6/1500 | 2CSG421220R1101 | | 1.000 | 1 |
| 2000 | 0.5 | 30 | 606406 | CT6/2000 | 2CSG421230R1101 | | 1.000 | 1 |
| 2500 | 0.5 | 30 | 606505 | CT6/2500 | 2CSG421240R1101 | | 1.000 | 1 |

**CT8 .../5 A series, through primary**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 300 | 0.5 | 5 | 606604 | CT8/300 | 2CSG521140R1101 | | 1.000 | 1 |
| 400 | 0.5 | 6 | 606703 | CT8/400 | 2CSG521150R1101 | | 1.000 | 1 |
| 500 | 0.5 | 10 | 606802 | CT8/500 | 2CSG521160R1101 | | 1.000 | 1 |
| 600 | 0.5 | 10 | 606901 | CT8/600 | 2CSG521170R1101 | | 1.000 | 1 |
| 800 | 0.5 | 10 | 607007 | CT8/800 | 2CSG521180R1101 | | 1.000 | 1 |
| 1000 | 0.5 | 10 | 607106 | CT8/1000 | 2CSG521190R1101 | | 1.000 | 1 |
| 1200 | 0.5 | 15 | 607205 | CT8/1200 | 2CSG521200R1101 | | 1.000 | 1 |
| 1500 | 0.5 | 20 | 607304 | CT8/1500 | 2CSG521220R1101 | | 1.000 | 1 |
| 2000 | 0.5 | 20 | 607403 | CT8/2000 | 2CSG521230R1101 | | 1.000 | 1 |
| 2500 | 0.5 | 20 | 607502 | CT8/2500 | 2CSG521240R1101 | | 1.000 | 1 |
| 3000 | 0.5 | 20 | 607601 | CT8/3000 | 2CSG521250R1101 | | 1.000 | 1 |

**CT8-V .../5 A series, through primary**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 400 | 0.5 | 6 | 608707 | CT8-V/400 | 2CSG631150R1101 | | 0.800 | 1 |
| 500 | 0.5 | 10 | 608806 | CT8-V/500 | 2CSG631160R1101 | | 0.800 | 1 |
| 600 | 0.5 | 10 | 608905 | CT8-V/600 | 2CSG631170R1101 | | 0.800 | 1 |
| 800 | 0.5 | 10 | 609001 | CT8-V/800 | 2CSG631180R1101 | | 0.800 | 1 |
| 1000 | 0.5 | 10 | 609100 | CT8-V/1000 | 2CSG631190R1101 | | 0.800 | 1 |
| 1200 | 0.5 | 10 | 609209 | CT8-V/1200 | 2CSG631200R1101 | | 0.800 | 1 |
| 1500 | 0.5 | 10 | 609308 | CT8-V/1500 | 2CSG631220R1101 | | 0.800 | 1 |
| 2000 | 0.5 | 20 | 609407 | CT8-V/2000 | 2CSG631230R1101 | | 0.800 | 1 |
| 2500 | 0.5 | 20 | 609506 | CT8-V/2500 | 2CSG631240R1101 | | 0.800 | 1 |

**CT6 series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | 50 |
| horizontal bar | ▭ | 60x20 |
| vertical bar | ▯ | - |

**CT8 series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | 2x30 |
| horizontal bar | ▭ | 80x30 |
| vertical bar | ▯ | - |

**CT8-V series**

| Through primary | | max section [mm] | |
|---|---|---|---|
| cable | ○ | 2x35 | |
| horizontal bar | ▭ | - | |
| vertical bar | ▯ | 80x30 | 3x80x5 |

# Energy efficiency
## CT measurement current transformers with through primary




CT12




CT12/V

**CT12 .../5 A series, through primary**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 500 | 0.5 | 10 | 607700 | CT12/500 | 2CSG721160R1101 | | 1.600 | 1 |
| 600 | 0.5 | 10 | 607809 | CT12/600 | 2CSG721170R1101 | | 1.600 | 1 |
| 800 | 0.5 | 15 | 607908 | CT12/800 | 2CSG721180R1101 | | 1.600 | 1 |
| 1000 | 0.5 | 20 | 608004 | CT12/1000 | 2CSG721190R1101 | | 1.600 | 1 |
| 1200 | 0.5 | 20 | 608103 | CT12/1200 | 2CSG721200R1101 | | 1.600 | 1 |
| 1500 | 0.5 | 20 | 608202 | CT12/1500 | 2CSG721220R1101 | | 1.600 | 1 |
| 2000 | 0.5 | 30 | 608301 | CT12/2000 | 2CSG721230R1101 | | 1.600 | 1 |
| 2500 | 0.5 | 40 | 608400 | CT12/2500 | 2CSG721240R1101 | | 1.600 | 1 |
| 3000 | 0.5 | 40 | 608509 | CT12/3000 | 2CSG721250R1101 | | 1.600 | 1 |
| 4000 | 0.5 | 50 | 608608 | CT12/4000 | 2CSG721260R1101 | | 2.000 | 1 |
| 5000 | 0.5 | 50 | 745600 | CT12/5000 | 2CSG721270R1101 | | 3.000 | 1 |
| 6000 | 0.5 | 50 | 745709 | CT12/6000 | 2CSG721280R1101 | | 3.000 | 1 |

**CT12-V .../5 A series, through primary**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 800 | 0.5 | 10 | 609605 | CT12-V/800 | 2CSG831180R1101 | | 0.700 | 1 |
| 1000 | 0.5 | 10 | 609704 | CT12-V/1000 | 2CSG831190R1101 | | 0.700 | 1 |
| 1200 | 0.5 | 10 | 609803 | CT12-V/1200 | 2CSG831200R1101 | | 0.700 | 1 |
| 1250 | 0.5 | 10 | 609902 | CT12-V/1250 | 2CSG831210R1101 | | 0.700 | 1 |
| 1500 | 0.5 | 12 | 610007 | CT12-V/1500 | 2CSG831220R1101 | | 0.700 | 1 |
| 2000 | 0.5 | 15 | 610106 | CT12-V/2000 | 2CSG831230R1101 | | 1.000 | 1 |
| 2500 | 0.5 | 20 | 610205 | CT12-V/2500 | 2CSG831240R1101 | | 1.000 | 1 |
| 3000 | 0.5 | 20 | 610304 | CT12-V/3000 | 2CSG831250R1101 | | 1.000 | 1 |
| 4000 | 0.5 | 20 | 745808 | CT12-V/4000* | 2CSG831260R1101 | | 1.000 | 1 |

* Air insulation class: Class B

**CT12 series**

| Through primary | | max section [mm] up to 4000A | max section [mm] 5000 and 6000 A |
|---|---|---|---|
| cable | ◯ | 2x50 | - |
| horizontal bar | ▭ | 125x50 | 120x10, 2x120x10, 3x120x10 |
| vertical bar | ▯ | - | 200x10, 2x200x10, 3x200x10 |

**CT12-V series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ◯ | 3x35 |
| horizontal bar | ▭ | - |
| vertical bar | ▯ | 125x30, 3x100x10, 4x125x5 |

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# Energy efficiency
# CTA measurement current transformers with wound primary




CTA/25

## Standard type current transformers .../5 A with wound primary

**CTA .../5 A series, wound primary with insertion on Ø8 MA bolt**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 5 | 0.5 | 5 | 661306 | CTA/5 | 2CSG111020R1141 | | 0.290 | 1 |
| 10 | 0.5 | 5 | 661405 | CTA/10 | 2CSG111030R1141 | | 0.290 | 1 |
| 15 | 0.5 | 5 | 661504 | CTA/15 | 2CSG111040R1141 | | 0.290 | 1 |
| 20 | 0.5 | 5 | 661603 | CTA/20 | 2CSG111050R1141 | | 0.290 | 1 |
| 25 | 0.5 | 5 | 661702 | CTA/25 | 2CSG111060R1141 | | 0.290 | 1 |
| 40 | 0.5 | 5 | 661801 | CTA/40 | 2CSG111080R1141 | | 0.290 | 1 |
| 50 | 0.5 | 5 | 661900 | CTA/50 | 2CSG111090R1141 | | 0.290 | 1 |
| 60 | 0.5 | 5 | 662006 | CTA/60 | 2CSG111100R1141 | | 0.290 | 1 |
| 80 | 0.5 | 5 | 662105 | CTA/80 | 2CSG111110R1141 | | 0.290 | 1 |
| 100 | 0.5 | 5 | 662204 | CTA/100 | 2CSG111120R1141 | | 0.290 | 1 |

| **CTA series Wound primary** | | max section [mm] |
|---|---|---|
| cable | ○ | 8 |
| horizontal bar | ▭ | - |
| vertical bar | ▯ | - |

8

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# Energy efficiency
# CTO split core measurement current transformers


2CSC400141F0202

CT30


2CSC400142F0202

CT80


2CSC400142F0202

CT120

## Split core measurement current transformers with throug primary

Split core measurement current transformers are used in distribution panels or power centers for maintenance or system expansion. They can be installed easily and they allows to save a lot of time, avoiding bar disconnection. All transformers are complete with terminal caps and fastening accessories, both on bar and on wall.

**CT30/...5 A Split core current transformers**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 100 | 3 | 1.5 | 887805 | CT30/100 | 2CSG101100R1101 | | 0.85 | 1 |
| 150 | 3 | 2 | 887904 | CT30/150 | 2CSG101110R1101 | | 0.85 | 1 |
| 250 | 0.5 | 1.5 | 888109 | CT30/250 | 2CSG101130R1101 | | 0.85 | 1 |
| 400 | 0.5 | 2.5 | 888000 | CT30/400 | 2CSG101150R1101 | | 0.85 | 1 |

**CT80/...5 A Split core current transformers**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 250 | 0.5 | 1 | 888208 | CT80/250 | 2CSG201130R1101 | | 1.1 | 1 |
| 400 | 0.5 | 1.5 | 888307 | CT80/400 | 2CSG201150R1101 | | 1.1 | 1 |
| 500 | 0.5 | 2.5 | 888406 | CT80/500 | 2CSG201160R1101 | | 1.1 | 1 |
| 600 | 0.5 | 2.5 | 888505 | CT80/600 | 2CSG201170R1101 | | 1.1 | 1 |
| 800 | 0.5 | 3 | 888604 | CT80/800 | 2CSG201180R1101 | | 1.1 | 1 |
| 1000 | 0.5 | 5 | 888703 | CT80/1000 | 2CSG201190R1101 | | 1.1 | 1 |

**CT120/...5 A Split core current transformers**

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order details Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 400 | 0.5 | 1.5 | 889007 | CT120/400 | 2CSG401150R1101 | | 1.3 | 1 |
| 500 | 0.5 | 2.5 | 889106 | CT120/500 | 2CSG401160R1101 | | 1.3 | 1 |
| 600 | 0.5 | 2.5 | 889205 | CT120/600 | 2CSG401170R1101 | | 1.3 | 1 |
| 800 | 0.5 | 3 | 889304 | CT120/800 | 2CSG401180R1101 | | 1.3 | 1 |
| 1000 | 0.5 | 5 | 889403 | CT120/1000 | 2CSG401190R1101 | | 1.3 | 1 |
| 1200 | 0.5 | 6 | 889502 | CT120/1200 | 2CSG401200R1101 | | 1.3 | 1 |
| 1500 | 0.5 | 8 | 889601 | CT120/1500 | 2CSG401220R1101 | | 1.3 | 1 |

**CT30 series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | |
| horizontal bar | ▭ | |
| vertical bar | ▯ | 2x30x10 |

**CT80 series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | |
| horizontal bar | ▭ | |
| vertical bar | ▯ | 3x80x10 |

**CT120 series**

| Through primary | | max section [mm] |
|---|---|---|
| cable | ○ | |
| horizontal bar | ▭ | |
| vertical bar | ▯ | 4x120x10 |

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# Energy efficiency
# TRF M measurement modular current transformers




TRF M

## Modular current transformers with Ø 29 mm through primary, secondary .../5A

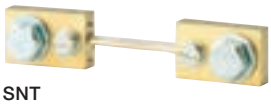
TRF M are modular current transformers with through primary for measuring instruments. Their compact size and quick DIN rail plug allow easy installation along with great measurement precision.

| Primary rated current Iprim A | Accurancy class | Rated power VA | Bbn 8012542 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 40 | 3 | 1 | 046912 | TRFM/40 | 2CSM100050R1111 | | 0.250 | 1 |
| 60 | 1 | 2 | 047018 | TRFM/60 | 2CSM100070R1111 | | 0.250 | 1 |
| 100 | 0.5 | 2 | 047117 | TRFM/100 | 2CSM100090R1111 | | 0.250 | 1 |
| 150 | 0.5 | 3 | 047216 | TRFM/150 | 2CSM100100R1111 | | 0.250 | 1 |
| 250 | 0.5 | 4 | 047315 | TRFM/250 | 2CSM100120R1111 | | 0.250 | 1 |
| 400 | 0.5 | 6 | 047407 | TRFM/400 | 2CSM100140R1111 | | 0.250 | 1 |
| 600 | 0.5 | 8 | 047506 | TRFM/600 | 2CSM100160R1111 | | 0.250 | 1 |



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# Energy efficiency
## SNT current transformer for d.c. applications




SNT

| Technical features | | |
|---|---|---|
| Voltage | [mV] | 60 |
| Current rating | [A] | from 5 to 1000 |
| Accuracy class | | 0.5 (from 10 to 30 °C) |
| Max. load | [Ω] | 0.25 |
| Overload for 5 sec. | | from 10 to 500 A : 1xIn |
| | | from 600 to 1000 A: 5xIn |

### Shunts

Shunts have 60 mV voltage and must be used with a maximum load of 0.25 Ω in combination with measurement instruments in d.c.
For an appropriate operation:

- both horizontal and vertical mounting are possible (the horizontal position enables a greater heat consumption)
- the faying surface must be completely used and clean; cover with specific grease after the connection
- screws and bolts must be perfectly tight
- shunts must be sufficiently ventilated; as they are not insulated, it is a good rule to protect them against accidental contacts.

8

| 60 mV shunts | | | | | | |
|---|---|---|---|---|---|---|
| Rated current | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
| A | EAN | Type code | Order code | | kg | pc. |
| 5 | 047605 | SNT 1/5 | 2CSM100010R1121 | | 1.300 | 1 |
| 6 | 047704 | SNT 1/6 | 2CSM100020R1121 | | 1.800 | 1 |
| 10 | 047803 | SNT 1/10 | 2CSM100030R1121 | | 1.800 | 1 |
| 15 | 047902 | SNT 1/15 | 2CSM100040R1121 | | 1.800 | 1 |
| 20 | 048008 | SNT 1/20 | 2CSM100050R1121 | | 1.800 | 1 |
| 25 | 048107 | SNT 1/25 | 2CSM100060R1121 | | 1.800 | 1 |
| 30 | 048206 | SNT 1/30 | 2CSM100070R1121 | | 1.300 | 1 |
| 40 | 048305 | SNT 1/40 | 2CSM100080R1121 | | 1.300 | 1 |
| 50 | 048404 | SNT 1/50 | 2CSM100090R1121 | | 2.200 | 1 |
| 60 | 048503 | SNT 1/60 | 2CSM100100R1121 | | 2.200 | 1 |
| 80 | 048602 | SNT 1/80 | 2CSM100110R1121 | | 1.300 | 1 |
| 100 | 048701 | SNT 1/100 | 2CSM100120R1121 | | 1.300 | 1 |
| 150 | 048800 | SNT 1/150 | 2CSM100130R1121 | | 1.300 | 1 |
| 200 | 048909 | SNT 1/200 | 2CSM100140R1121 | | 1.300 | 1 |
| 250 | 049005 | SNT 1/250 | 2CSM100150R1121 | | 1.900 | 1 |
| 400 | 049104 | SNT 1/400 | 2CSM100160R1121 | | 1.900 | 1 |
| 500 | 049203 | SNT 1/500 | 2CSM100170R1121 | | 1.900 | 1 |
| 600 | 049302 | SNT 1/600 | 2CSM100180R1121 | | 1.900 | 1 |
| 800 | 049401 | SNT 1/800 | 2CSM100190R1121 | | 2.200 | 1 |
| 1000 | 049500 | SNT 1/1000 | 2CSM100200R1121 | | 2.200 | 1 |

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# Energy efficiency
# TV voltage transformers




TV2

## Voltage transformers

They are used for transforming primary voltages up to 500 V into secondary voltages of.../100 V max. for indirect supply of analogue as well as digital measurement instruments.
R3 voltage transformers are used in three-phase distribution systems with neutral.

**Voltage transformers with metallic housing, precision class 0.5**

| Primary/secondary voltage | Power | Bbn 8012542 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| V/V | VA | EAN | Type code | Order code | | kg | pc. |
| 230/100 | 10 | 730101 | TV2-230/100 | 2CSG324070R5021 | | 2.100 | 1 |
| 380/100 | 10 | 730200 | TV2-380/100 | 2CSG324090R5021 | | 2.100 | 1 |
| 400/100 | 10 | 730309 | TV2-400/100 | 2CSG324110R5021 | | 2.100 | 1 |
| 440/100 | 10 | 730408 | TV2-440/100 | 2CSG324130R5021 | | 2.100 | 1 |
| 500/100 | 10 | 730507 | TV2-500/100 | 2CSG324150R5021 | | 2.100 | 1 |
| 600/100 | 10 | 730606 | TV2-600/100 | 2CSG324170R5021 | | 2.100 | 1 |
| (230/$\sqrt{3}$)/100 | 5 | 731009 | TV2-230R3/100 | 2CSG323080R5021 | | 2.100 | 1 |
| (380/$\sqrt{3}$)/100 | 5 | 731108 | TV2-380R3/100 | 2CSG323100R5021 | | 2.100 | 1 |
| (400/$\sqrt{3}$)/100 | 5 | 731207 | TV2-400R3/100 | 2CSG323120R5021 | | 2.100 | 1 |
| (440/$\sqrt{3}$)/100 | 5 | 731306 | TV2-440R3/100 | 2CSG323140R5021 | | 2.100 | 1 |
| (500/$\sqrt{3}$)/100 | 5 | 731405 | TV2-500R3/100 | 2CSG323160R5021 | | 2.100 | 1 |
| (600/$\sqrt{3}$)/100 | 5 | 731504 | TV2-600R3/100 | 2CSG323180R5021 | | 2.100 | 1 |



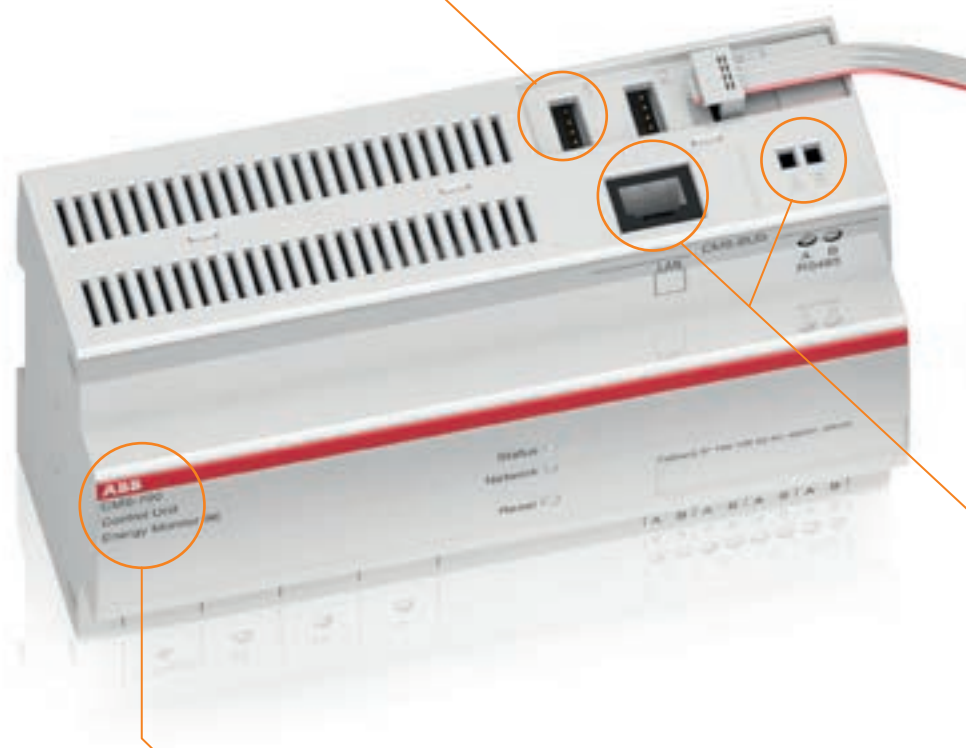
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# Energy efficiency
# CMS – Current Measurement System overview

The quality of a Circuit Monitoring System is dependent on the strengths of the individual components and how well they interact. ABB's CMS sets the bar particularly high. Regardless of whether we're talking compactness, technology, measurement results, user friendliness or flexibility, every component and every feature of this CMS has been fully optimized in terms of practicality and functionality.



**CMS bus interface**
A bus interface allows up to 32 sensors to be connected to the Control Unit.



**Example illustration:**
**Control Unit CMS-700 in combination with CMS open-core sensors**



**CMS-770** **CMS-600** **CMS-700**

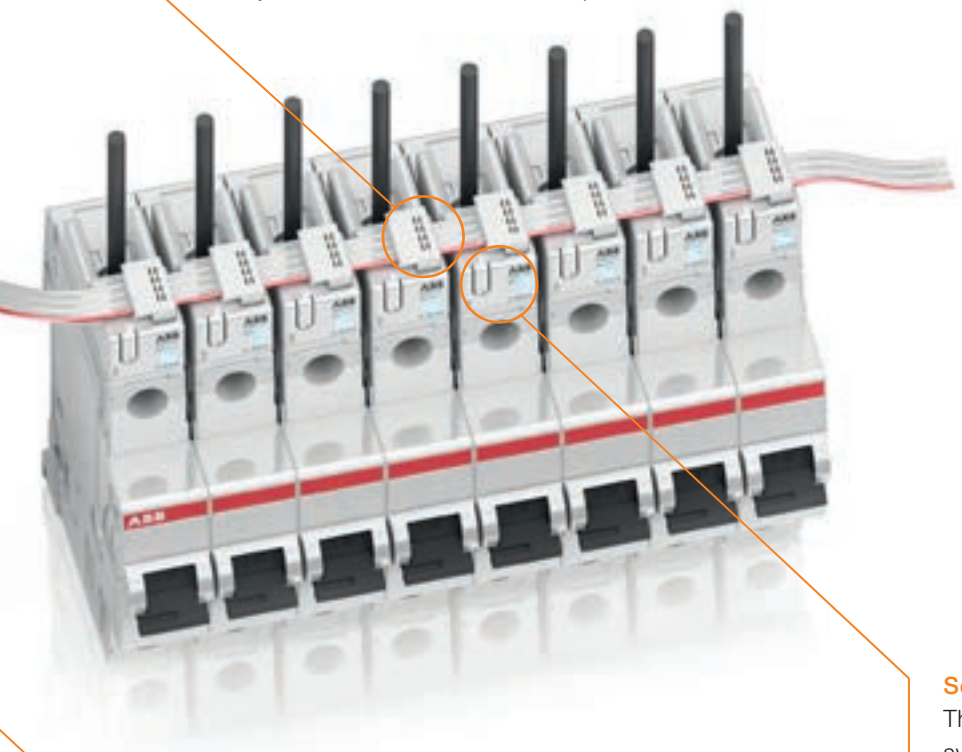
**Control Units**
The Control Unit is a kind of computing and communication center that, depending on the equipment connected to it, evaluates the different data picked up by the sensors and makes it available via the built-in interfaces.

You have a choice of three different units depending on your applications: CMS-600, CMS-700 and CMS-770.



### Connection technology

Connecting the sensors to the Control Unit is extremely simple and requires no special tools. All sensors are connected to the Control Unit by means of a flexible flat cable and insulation displacement connectors. The positioning of sensors is fully customizable so that they sit exactly where a measurement is required.





### Sensors

The CMS sensors form the heart of the system and they can be mounted anywhere without any problem. Initializing the sensors is also child's play, with the desired identifier being assigned to each individual sensor via the Control Unit in just a few simple steps. The entire configuration and commissioning procedure takes just a matter of minutes. All measurement functions are available immediately following initialization.



### Serial interfaces

Depending on the unit, numerous interfaces and protocols are available to ensure smooth network implementation: RS485 (Modbus RTU), LAN (TCP/IP and Modbus TCP), WiFi.

Thanks to the built-in web server, an internet browser or a free Android or iOS app can be used to visualize the values measured. What's more, the measured values can also be exported to CSV files.

# Energy efficiency
# Current Measurement System

**Integrate however you want.**
**Thanks to multiple mounting options.**
Depending on the application, choose between up to four different mounting options to make integrating the CMS sensors in your installation as simple and as uncomplicated as possible.

## Special sensors for ABB installation devices









**System pro *M*, SMISSLINE installation**
CMS-120PS and CMS-100PS series sensors can be mounted on all ABB installation devices with twin terminals.



**Installation on S800 installation devices**
CMS-100S8 and CMS-200S8 series sensors can be mounted on all S800 high performance circuit breakers with cage terminals.

## Universally usable sensor designs







**Mounting on a DIN rail**
CMS-120DR, CMS-100DR, and CMS-200DR series sensors can be mounted on all DIN rails with the aid of a DIN rail mounting.



**Cable tie mounting**
If space is at a real premium, CMS-120CA, CMS-100CA, and CMS-200CA series sensors can be secured directly to the cable(s) to be measured by means of cable ties.

## Tangible value added for you
## ABB circuit monitoring pays off twofold



**Early warning system (predictive maintenance) for increasing the availability of critical consumers**
Continuous monitoring of the current flow at the circuit breaker makes it possible to detect overloaded lines before they lead to a service interruption. Apart from this, monitoring individual circuits indicates whether the loads are in the desired operating mode or not. In this way, system deviations can be ascertained instantaneously. What's more, the CMS can be used to detect unbalanced loads before they result in failure of the neutral conductor and consequently load failure.



**Cost analysis to reduce and assign energy costs**
The cost of energy will rise continuously. In order to cut costs, you first have to know where they arise. The Control Unit helps illustrate and analyze the instantaneous energy consumption levels. Furthermore, the calculated active energy can be used to roughly allocate the costs at the output level.

# Energy efficiency
# Current Measurement System

## Sensor mounting methods



**System pro M, SMISSLINE**

for all LS, FI & FI-LS with twin terminals



**S800**

for all S800 devices with cage terminals



**DIN rail**

universally usable



**Cable tie**

universally usable

## Open-core sensors

AC accuracy* of ≤ ±1.0 %

The laying method influences the accuracy.







### 18-mm overall width

| | | | | |
|---|---|---|---|---|
| CMS-120xx (80 A) | CMS-120PS | | CMS-120DR | CMS-120CA |
| CMS-121xx (40 A) | CMS-121PS | | CMS-121DR | CMS-121CA |
| CMS-122xx (20 A) | CMS-122PS | | CMS-122DR | CMS-122CA |

## Solid-core sensors

AC accuracy* ≤ ±0.5 %









### 18-mm overall width

| | | | | |
|---|---|---|---|---|
| CMS-100xx (80 A) | CMS-100PS | CMS-100S8 | CMS-100DR | CMS-100CA |
| CMS-101xx (40 A) | CMS-101PS | CMS-101S8 | CMS-101DR | CMS-101CA |
| CMS-102xx (20 A) | CMS-102PS | CMS-102S8 | CMS-102DR | CMS-102CA |







### 25-mm overall width

| | | | | |
|---|---|---|---|---|
| CMS-200xx (160 A) | | CMS-200S8 | CMS-200DR | CMS-200CA |
| CMS-201xx (80 A) | | CMS-201S8 | CMS-201DR | CMS-201CA |
| CMS-202xx (40 A) | | CMS-202S8 | CMS-202DR | CMS-202CA |

* All accuracy specifications refer to the relevant full scale value and apply to 25 °C.





| Characteristics | Control Unit CMS-600 | Control Unit CMS-700 |
|---|---|---|
| **CMS Sensors** | | |
| Sensors | 64 (2x32) | 96 (3x32) |
| **Measured values** | | |
| Power supply | | ● |
| Current | ● | ● |
| Power | | ● |
| Energy | | ● |
| Built-in power pack | | ● |
| Power factor | | ● |
| **Interfaces** | | |
| RS485 | ● | ● |
| LAN | | ● |
| WiFi | | |
| **Protocols** | | |
| Modbus RTU | ● | ● |
| Modbus TCP | | ● |
| SNMP | | ● |
| **Visualization** | | |
| Built-in web server | | ● |
| App | | |
| Touch display | ● | |
| CSV data export | | ● |
| **Approvals** | | |
| IEC 61010-1 | ● | ● |
| UL 508/ CSA C22.2 No. 14 | ● | ● |

# Energy efficiency
# Current Measurement System

**CMS-600**



2CCC481107F0001

**CMS-600**
**User Manual**

| Control Unit CMS-600 – «Modbus RTU» | | |
|---|---|---|
| Supply voltage | [VDC] | 24 (±10%) |
| Power input | [W] | 4 – 24 (dep. on number of sensors) |
| Interface | | RS485 2-wire |
| Protocol | | Modbus RTU |
| Data rate | [Baud] | 2400 ... 115200 |
| Refresh time | | ≤1 sec with max. 64 sensors |
| Insulation strength | [VAC] | 400 |
| Screw-type terminals | | 0.5 ... 2.5 mm², max. 0.6 Nm |
| Mounting method | | 35 mm DIN rail (DIN 50022)<br>or SMISSLINE TP plug base |
| Dimensions | [mm] | 71.8 x 87.0 x 64.9 (4 WM) |
| Operating temperature | [°C] | –25 ... +70 |
| Bearing temperature | [°C] | –40 ... +85 |
| Standards | | IEC 61010-1<br>UL 508/ CSA C22.2 No. 14 |

**CMS-700**



2CCC481194F0001

**CMS-700**
**User Manual**

| Control Unit CMS-700 | | |
|---|---|---|
| Supply voltage | [VAC] | 80 – 277 (L1-N, +5%) |
| Frequency | [Hz] | 50/60 |
| Power input (L1-N) | [W] | 5 ... 40 (dep. on number of sensors) |
| Power input,<br>current transformer, secondary side | [VA] | Current circuit <2 (per phase) |
| Voltage measurement range | [VAC] | 80 – 277 (L1, L2, L3-N) |
| Measurement range,<br>current transformer, secondary side | [A] | nominal: 5<br>max.: 6 |
| Harmonic component | [Hz] | up to 2000 |
| Data rate of Modbus RTU | [Baud] | RS485 2-wire, 2400 ... 115200 |
| Refresh time | | ≤1 sec with max. 96 sensors |
| LAN | [Mbit/s] | 100 |
| Conductor cross-section | [mm²] | 0.5 ... 2.5 |
| Mounting method | | 35 mm DIN rail (DIN 50022) |
| Degree of protection | | IP20 |
| Dimensions | [mm] | 160.0 x 87.0 x 64.9 (9 WM) |
| Operating temperature | [°C] | –25 ... +60 |
| Bearing temperature | [°C] | –40 ... +85 |
| Standards | | IEC61010-1<br>UL 508/ CSA C22.2 No. 14 |
| **Main circuit accuracy** | | |
| Voltage | | ±1% |
| Current | | ±1% |
| Harmonic component | | 1% |
| Active power | | ±2% |
| Apparent power | | ±2% |
| Reactive power | | ±2% |
| Power factor | | ±0.2% |

CMS-120PS



2CCC481154F0001

CMS-120DR



2CCC481142F0001

CMS-120CA



2CCC481141F0001

CMS-100PS



2CCC481030F0001

CMS-100S8



2CCC481032F0001

CMS-100DR



2CCC481036F0001

CMS-100CA



2CCC481040F0001

CMS-200S8



2CCC481034F0001

CMS-200DR



2CCC481038F0001

CMS-200CA



2CCC481042F0001

**Open-core sensors 18 mm**

| Sensor typ | | | CMS-120xx | CMS-121xx | CMS-122xx |
|---|---|---|---|---|---|
| Measurement range | | [A] | 80 | 40 | 20 |
| Measuring method | | | TRMS, AC 50 / 60 Hz, DC | | |
| Peak factor, distorted waveform | | | ≤ 1.5 | ≤ 3 | ≤ 6 |
| AC accuracy (TA = + 25 °C)* | | | ≤ ± 1 % | | |
| AC temperature coefficient* | | | ≤ ± 0.04 % | | |
| DC accuracy (TA = + 25 °C)* | | | ≤ ± 1.2 % | ≤ ± 1.4 % | ≤ ± 1.8 % |
| DC temperature coefficient* | | | ≤ ± 0.14 % | ≤ ± 0.24 % | ≤ ± 0.44 % |
| Resolution | | [A] | 0.01 | | |
| Sampling rate, internal | | [Hz] | 5000 | | |
| Response time (±1 %) | | [sec] | typ. 0.34 | | |
| Conductor penetration | | [mm] | 9,6 | | |
| Insulation strength | | | 690 AC / 1500 DC | | |
| Operating/storage temperature | | [°C] | – 25 ... + 70 / – 40 ... + 85 | | |
| Dimensions | CMS-120PS Serie | [mm] | 17.4 x 41.0 x 26.5 | | |
| | CMS-120CA Serie | [mm] | 17.4 x 41.0 x 29.0 | | |
| | CMS-120DR Serie | [mm] | 17.4 x 51.5 x 43.2 | | |
| Standards | | | IEC 61010-1 \| UL508 / CSA C22.2 No 14 | | |

**Solid-core sensors 18 mm**

| Sensor typ | | | CMS-100xx | CMS-101xx | CMS-102xx |
|---|---|---|---|---|---|
| Measurement range | | [A] | 80 | 40 | 20 |
| Measuring method | | | TRMS, AC 50 / 60 Hz, DC | | |
| Peak factor, distorted waveform | | | ≤ 1.5 | ≤ 3 | ≤ 6 |
| AC accuracy (TA = + 25 °C)* | | | ≤ ± 0.5 % | | |
| AC temperature coefficient* | | | ≤ ± 0.036 % | | |
| DC accuracy (TA = + 25 °C)* | | | ≤ ± 0.7 % | ≤ ± 1.0 % | ≤ ± 1.7 % |
| DC temperature coefficient* | | | ≤ ± 0.047 % | ≤ ± 0.059 % | ≤ ± 0.084 % |
| Resolution | | [A] | 0.01 | | |
| Sampling rate, internal | | [Hz] | 5000 | | |
| Response time (±1 %) | | [sec] | typ. 0.25 | | |
| Conductor penetration | | [mm] | 10 | | |
| Insulation strength | | [V] | 690 VAC / 1500 VDC | | |
| Operating/storage temperature | | [°C] | – 25 ... + 70 / – 40 ... + 85 | | |
| Dimensions | CMS-100PS Serie | [mm] | 17.4 x 41.0 x 26.5 | | |
| | CMS-100S8 Serie | [mm] | 26.5 x 45.5 x 31.8 | | |
| | CMS-100DR Serie | [mm] | 17.4 x 51.5 x 43.2 | | |
| | CMS-100CA Serie | [mm] | 17.4 x 41.0 x 29.0 | | |
| Standards | | | IEC 61010-1 \| UL508 / CSA C22.2 No 14 | | |

**Solid-core sensors 25 mm**

| Sensor typ | | | CMS-200xx | CMS-201xx | CMS-202xx |
|---|---|---|---|---|---|
| Measurement range | | [A] | 160 | 80 | 40 |
| Measuring method | | | TRMS, AC 50 / 60 Hz, DC | | |
| Peak factor, distorted waveform | | | ≤ 1.5 | ≤ 3 | ≤ 6 |
| AC accuracy (TA = +25°C)* | | | ≤ ± 0.5 % | | |
| AC temperature coefficient* | | | ≤ ± 0.036 % | | |
| DC accuracy (TA = +25°C)* | | | ≤ ± 0.7 % | ≤ ± 1.0 % | ≤ ± 1.7 % |
| DC temperature coefficient* | | | ≤ ± 0.047 % | ≤ ± 0.059 % | ≤ ± 0.084 % |
| Resolution | | [A] | 0.01 | | |
| Sampling rate, internal | | [Hz] | 5000 | | |
| Response time (±1%) | | [sec] | typ. 0.25 | | |
| Conductor penetration | | [mm] | 15 | | |
| Insulation strength | | [V] | 690 VA / 1500 VDC | | |
| Operating/storage temperature | | [°C] | – 25 ... + 70 / – 40 ... + 85 | | |
| Dimensions | CMS-200S8 Serie | [mm] | 26.5 x 43.0 x 38.5 | | |
| | CMS-200DR Serie | [mm] | 25.4 x 43.0 x 43.2 | | |
| | CMS-200CA Serie | [mm] | 25.4 x 43.0 x 35.7 | | |
| Standards | | | IEC 61010-1 \| UL508 / CSA C22.2 No 14 | | |

* All accuracy specifications refer to the relevant full scale value and apply to 25 °C.
In the case of open-core sensors, the position of the cable influences the precision.

# Energy efficiency
# Current Measurement System

| Description | GTIN 7612271 EAN | Ordering details | | Unit price | Weight of 1 unit (kg) | Packaging unit (pce.) |
|---|---|---|---|---|---|---|
| | | Brief description | Product no. | | | |
| **Open-core sensors** | | | | | | |
| **Open-core sensors 18 mm for pro *M* & SMISSLINE installation devices with twin terminals** | | | | | | |
| 80 A | 452957 | CMS-120PS | 2CCA880210R0001 | | 0.012 | 1 |
| 40 A | 452971 | CMS-121PS | 2CCA880211R0001 | | 0.012 | 1 |
| 20 A | 452995 | CMS-122PS | 2CCA880212R0001 | | 0.012 | 1 |
| **Open-core sensors 18 mm for DIN rail mounting (universally usable)** | | | | | | |
| 80 A | 453077 | CMS-120DR | 2CCA880240R0001 | | 0.015 | 1 |
| 40 A | 453091 | CMS-121DR | 2CCA880241R0001 | | 0.015 | 1 |
| 20 A | 453114 | CMS-122DR | 2CCA880242R0001 | | 0.015 | 1 |
| **Open-core sensors 18 mm for cable tie mounting (universally usable)** | | | | | | |
| 80 A | 453015 | CMS-120CA | 2CCA880220R0001 | | 0.011 | 1 |
| 40 A | 453039 | CMS-121CA | 2CCA880221R0001 | | 0.011 | 1 |
| 20 A | 453053 | CMS-122CA | 2CCA880222R0001 | | 0.011 | 1 |
| **Solid-core sensors** | | | | | | |
| **Solid-core sensors 18 mm for pro *M* & SMISSLINE installation devices with twin terminals** | | | | | | |
| 80 A | 419202 | CMS-100PS | 2CCA880100R0001 | | 0.012 | 1 |
| 40 A | 419219 | CMS-101PS | 2CCA880101R0001 | | 0.012 | 1 |
| 20 A | 419226 | CMS-102PS | 2CCA880102R0001 | | 0.012 | 1 |
| **Solid-core sensors 18 mm for S800 installation devices with cage terminals** | | | | | | |
| 80 A | 426552 | CMS-100S8 | 2CCA880124R0001 | | 0.014 | 1 |
| 40 A | 426569 | CMS-101S8 | 2CCA880125R0001 | | 0.014 | 1 |
| 20 A | 426576 | CMS-102S8 | 2CCA880126R0001 | | 0.014 | 1 |
| **Solid-core sensors 18 mm for DIN rail mounting (universally usable)** | | | | | | |
| 80 A | 426583 | CMS-100DR | 2CCA880128R0001 | | 0.015 | 1 |
| 40 A | 426590 | CMS-101DR | 2CCA880129R0001 | | 0.015 | 1 |
| 20 A | 426606 | CMS-102DR | 2CCA880130R0001 | | 0.015 | 1 |
| **Solid-core sensors 18 mm for cable tie mounting (universally usable)** | | | | | | |
| 80 A | 426613 | CMS-100CA | 2CCA880107R0001 | | 0.011 | 1 |
| 40 A | 426620 | CMS-101CA | 2CCA880108R0001 | | 0.011 | 1 |
| 20 A | 426637 | CMS-102CA | 2CCA880109R0001 | | 0.011 | 1 |
| **Solid-core sensors 25 mm for S800 installation devices with cage terminals** | | | | | | |
| 160 A | 426644 | CMS-200S8 | 2CCA880136R0001 | | 0.028 | 1 |
| 80 A | 426651 | CMS-201S8 | 2CCA880137R0001 | | 0.028 | 1 |
| 40 A | 426668 | CMS-202S8 | 2CCA880138R0001 | | 0.028 | 1 |
| **Solid-core sensors 25 mm for DIN rail mounting (universally usable)** | | | | | | |
| 160 A | 426675 | CMS-200DR | 2CCA880132R0001 | | 0.030 | 1 |
| 80 A | 426682 | CMS-201DR | 2CCA880133R0001 | | 0.030 | 1 |
| 40 A | 426699 | CMS-202DR | 2CCA880134R0001 | | 0.030 | 1 |
| **Solid-core sensors 25 mm for cable tie mounting (universally usable)** | | | | | | |
| 160 A | 426705 | CMS-200CA | 2CCA880117R0001 | | 0.026 | 1 |
| 80 A | 426712 | CMS-201CA | 2CCA880118R0001 | | 0.026 | 1 |
| 40 A | 426729 | CMS-202CA | 2CCA880119R0001 | | 0.026 | 1 |
| **Control units** | | | | | | |
| Control Unit CMS-600 | 418700 | CMS-600 | 2CCA880000R0001 | | 0.153 | 1 |
| Control Unit CMS-700 | 453138 | CMS-700 | 2CCA880700R0001 | | 0.329 | 1 |
| Control Unit CMS-770 | 441609 | CMS-770 | 2CCA688307R0001 | | 0.295 | 1 |
| **Accessories** | | | | | | |
| Flat cable 2 m | 419233 | CMS-800 | 2CCA880148R0001 | | 0.017 | 1 |
| Flat cable 3 m | 424428 | CMS-801 | 2CCA880149R0001 | | 0.025 | 1 |
| Connector set (35 pcs.) | 419240 | CMS-820 | 2CCA880145R0001 | | 0.024 | 35 |
| WiFi antenna | 442149 | CMS-870 | 2CCA676620R0001 | | 0.226 | 1 |

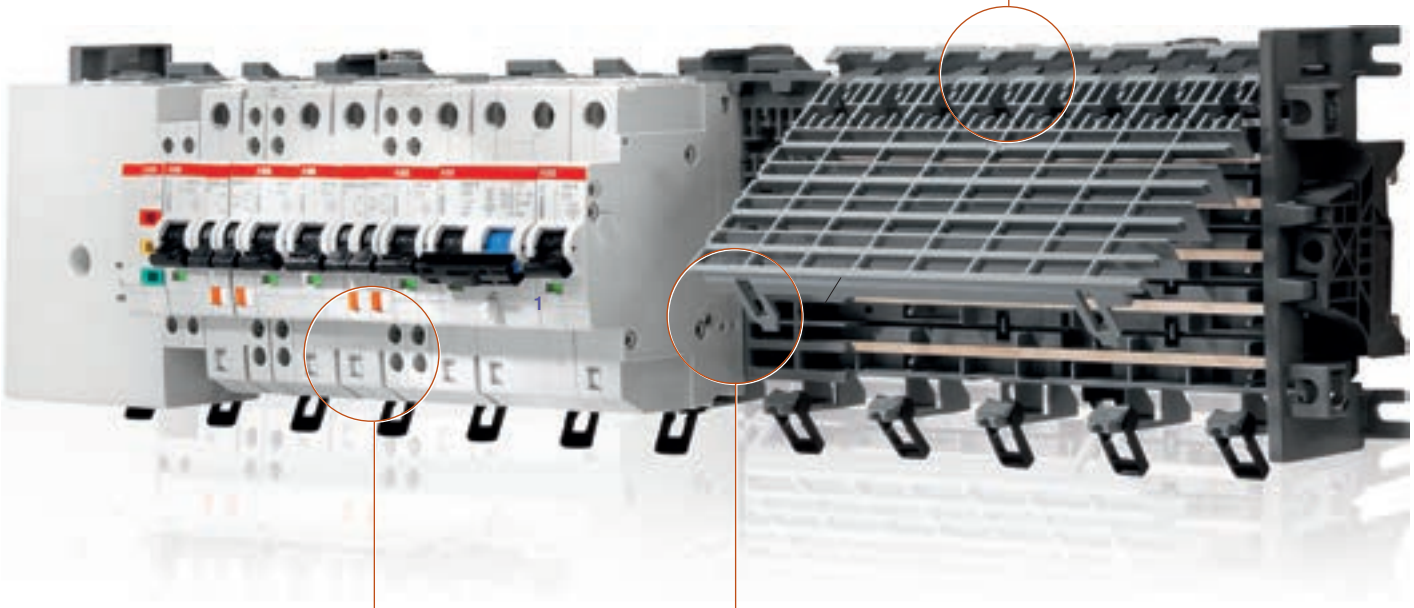
# Solutions for electrical distribution in buildings
## SMISSLINE TP plug-in system

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# SMISSLINE TP plug-in system
## Changes are never been easyer

SMISSLINE TP ensures that load-free devices and components can be snapped on and off under voltage without the need for additional personal protective equipment to guard against electrical hazards.



It opens up to a completely new prospects for you when it comes to installation, operation and flexibility.

The world's first pluggable socket system.





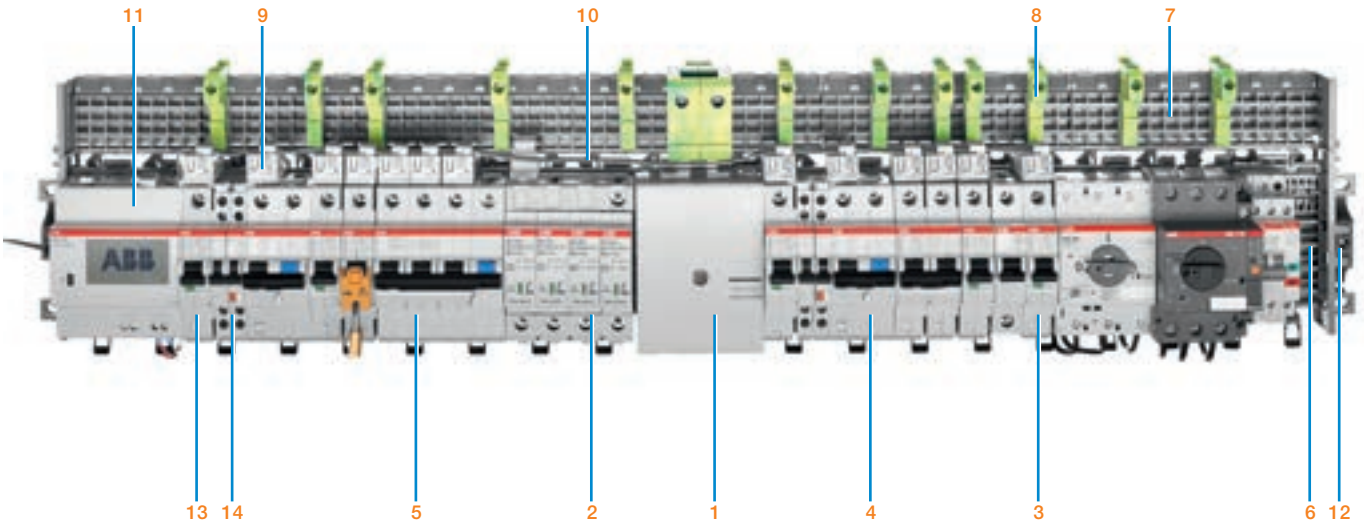
**Even safer: Protection against electrical hazards**
We have upgraded our unique SMISSLINE socket system even further through the addition of a pioneering innovation. With the new SMISSLINE TP system, components can now be plugged in or unplugged load-free without any risk from electrical current running through the body.

The SMISSLINE TP pluggable socket system is completely finger-safe (IP2XB) – when devices are plugged in and unplugged, the system is always touch-proof. This means that SMISSLINE TP prevents any danger to personnel from switching arcs or accidental arcing.

**Even more flexible: make additions and changes during ongoing operation**
Pluggable devices can be added and changed quickly, safely and simply during ongoing operation. And this can be done without any need for personal protective equipment.

This means that you benefit from more flexibility, savings on installation and maintenance – and improved safety. SMISSLINE TP provides greater availability and operating safety than conventional systems.






1 Supply terminal
2 Surge arrester OVR404
3 Miniature circuit breaker
4 RCBO FS401
5 RCBO FS403
6 Socket IP20
7 Additonal socket IP20
8 Terminals
9 Sensor for current measurement system
10 Cabel Bus system CMS
11 Control unit CMS
12 Socket end piece
13 Auxillary contact
14 Signal contact

# SMISSLINE TP plug-in system
## MCBs S 400 series

| | | | S400M and S400 UC |
|---|---|---|---|
| General Data | | | IEC/EN 60898-1 S400 B,C,D,K<br>IEC/EN 60947-2 S400 C,K,UCC, UCK |
| | Poles | | 1P, 1P+NP, 2P, 3P, 3P+NP |
| | Tripping characteristics | | B,C,D,K, UCC, UCZ |
| | Rated current In | A | 0.5 … 63 |
| | Rated frequency f | Hz | 50/60 Hz ( 16⅔ on request) |
| | Rated insulation voltage Ui acc. to DIN EN 60664-1 | V | 400 VAC |
| | Rated impulse withstand voltage Uimp. (1.2/50 µs) | kV | 4 kV |
| | Overvoltage category | | III |
| | Pollution degree | | 2 |
| Data acc. to IEC/EN 60898-1 | Rated operational voltage Ue | V | 1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC |
| | Max. power frequency recovery voltage (Umax) | V | 1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC;<br>1P: 72 V DC; 2P: 125 V DC |
| | Rated short-circuit capacity Icn | kA | 6 kA S400E<br>10 kA S400M |
| | Energy limiting class | | 3 |
| | Reference temperature for tripping characteristics | °C | B, C, D: 30 °C K: 40 °C |
| | Electrical and Mechanical Endurance | ops. | In < 32 A: 20 000 ops (AC), In ≥ 32 A: 10 000 ops. (AC) |
| Data acc. to IEC/EN 60947-2 | Max. power frequency recovery voltage (Umax) | V | 254/440 V AC 1P: 60 V DC 2P: 125 V DC for S400M<br>1P: 125 V DC 2P: 250 V DC for S400 UCC and UCZ |
| | Rated ultimate short-circuit capacity Icu | kA | 25 kA ≤ 16 A<br>25 kA 15 kA ≤ 20 A<br>S400UC: 10 kA (0,5.63A, 220 V d.c. 1pole)<br>S400UC: 20 kA (0,5.63A, 110 V d.c. 1pole)<br>S400UC: 25 kA (0,5.63A, 220 V d.c. 2pole)<br>S400UC: 10 kA (0,5.63A, 440 V d.c. 2pole)<br>S400UC: 10 kA (0,5.63A, 230/400 V) |
| | Rated service short-circuit capacity Ics | kA | 15 kA > 2 A...< 20 A<br>7.5 kA ≥ 25 A<br>S400UC: 10 kA (0,5.63A, 220 V d.c. 1pole)<br>S400UC: 10 kA (0,5.63A, 110 V d.c. 1pole)<br>S400UC: 20 kA (0,5.63A, 220 V d.c. 2pole)<br>S400UC: 10 kA (0,5.63A, 440 V d.c. 2pole)<br>S400UC: 6 kA (0,5.63A, 230/400 V) |
| | Dielectric test voltage | kV | |
| | Reference temperature for tripping characteristics | °C | C: 30 °C K: 40 °C |
| | Electrical and Mechanical Endurance | ops. | In < 32 A: 20 000 operating cycles<br>In ≥ 32 A: 10 000 operating cycles |
| Mechanical Data | Housing | | Insulation group I, RAL 7035 |
| | Toggle | | Insulation group II, black, sealable |
| | Classification acc. To NF F 126-101, NF F 16-102 | | |
| | Protection degree acc. to EN 60529 | | IP20*, IP40 in enclosure with cover |
| | Mechanical endurance | ops. | 20 000 ops. |
| | Shock resistance acc. to IEC/EN 60068-2-30 | | |
| | Vibration resistance acc. to IEC/EN 60068-2-6 | | 5 g – 20 cycles at 5 … 150 … 5 Hz with load 0.8 In |
| | Environmental conditions (damp heat) | | |
| | acc. to IEC/EN 60068-2-30 | °C/RH | 28 cycles with 55 °C/90–96 % and 25 °C/95–100 % |
| | Ambient temperature | °C | –25 … +55 °C |
| | Storage temperature | °C | –40 … +70 °C |
| Installation | Standed Cross-section of conductors (top/bottom) | mm² | top 0.75–25 mm²/bottom no terminal pluggable MCB |
| | Flexible Cross-section of conductors (top/bottom) | mm² | |
| | Tightening torque | Nm<br>in-lbs. | 2.8 Nm |
| | Screwdriver | | No. 2 Pozidrive |
| | Mounting | | plug in on bus bar system SMISSLINE |
| | Mounting position | | any |
| | Supply | | any |
| Dimensions and weight | Mounting dimensions acc. to DIN 43880 | | |
| | Pole dimensions (H x D x W) | mm | 91x18x82 |
| | Pole weight | g | 117 |

# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 B characteristic



S 401



S 402 E



S 403 M

### S400M Characteristic B

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898**

**Icn = 10 kA**

| Number of poles | Rated current | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 4 | 0101214 | S401 M-B 4 | 2CCS571001R0045 | | 0.110 | 10 |
| | 6 | 0101221 | S401 M-B 6 | 2CCS571001R0065 | | 0.110 | 10 |
| | 8 | 0108411 | S401 M-B 8 | 2CCS571001R0085 | | 0.110 | 10 |
| | 10 | 0101238 | S401 M-B 10 | 2CCS571001R0105 | | 0.110 | 10 |
| | 13 | 0101245 | S401 M-B 13 | 2CCS571001R0135 | | 0.110 | 10 |
| | 16 | 0101252 | S401 M-B 16 | 2CCS571001R0165 | | 0.110 | 10 |
| | 20 | 0101269 | S401 M-B 20 | 2CCS571001R0205 | | 0.110 | 10 |
| | 25 | 0101276 | S401 M-B 25 | 2CCS571001R0255 | | 0.110 | 10 |
| | 32 | 0101283 | S401 M-B 32 | 2CCS571001R0325 | | 0.110 | 10 |
| | 40 | 0101290 | S401 M-B 40 | 2CCS571001R0405 | | 0.110 | 10 |
| | 50 | 0101306 | S401 M-B 50 | 2CCS571001R0505 | | 0.110 | 10 |
| | 63 | 0101313 | S401 M-B 63 | 2CCS571001R0635 | | 0.110 | 10 |
| 2 | 4 | 0101986 | S402 M-B 4 | 2CCS572001R0045 | | 0.221 | 5 |
| | 6 | 0101993 | S402 M-B 6 | 2CCS572001R0065 | | 0.221 | 5 |
| | 8 | 0108428 | S402 M-B 8 | 2CCS572001R0085 | | 0.221 | 5 |
| | 10 | 0102006 | S402 M-B 10 | 2CCS572001R0105 | | 0.221 | 5 |
| | 13 | 0102013 | S402 M-B 13 | 2CCS572001R0135 | | 0.221 | 5 |
| | 16 | 0102020 | S402 M-B 16 | 2CCS572001R0165 | | 0.221 | 5 |
| | 20 | 0102037 | S402 M-B 20 | 2CCS572001R0205 | | 0.221 | 5 |
| | 25 | 0102044 | S402 M-B 25 | 2CCS572001R0255 | | 0.221 | 5 |
| | 32 | 0102051 | S402 M-B 32 | 2CCS572001R0325 | | 0.221 | 5 |
| | 40 | 0102068 | S402 M-B 40 | 2CCS572001R0405 | | 0.221 | 5 |
| | 50 | 0102075 | S402 M-B 50 | 2CCS572001R0505 | | 0.221 | 5 |
| | 63 | 0102082 | S402 M-B 63 | 2CCS572001R0635 | | 0.221 | 5 |
| 3 | 4 | 0102754 | S403 M-B 4 | 2CCS573001R0045 | | 0.322 | 3 |
| | 6 | 0102761 | S403 M-B 6 | 2CCS573001R0065 | | 0.322 | 3 |
| | 8 | 0108435 | S403 M-B 8 | 2CCS573001R0085 | | 0.322 | 3 |
| | 10 | 0102778 | S403 M-B 10 | 2CCS573001R0105 | | 0.322 | 3 |
| | 13 | 0102785 | S403 M-B 13 | 2CCS573001R0135 | | 0.322 | 3 |
| | 16 | 0102792 | S403 M-B 16 | 2CCS573001R0165 | | 0.322 | 3 |
| | 20 | 0102808 | S403 M-B 20 | 2CCS573001R0205 | | 0.322 | 3 |
| | 25 | 0102815 | S403 M-B 25 | 2CCS573001R0255 | | 0.322 | 3 |
| | 32 | 0102822 | S403 M-B 32 | 2CCS573001R0325 | | 0.322 | 3 |
| | 40 | 0102839 | S403 M-B 40 | 2CCS573001R0405 | | 0.322 | 3 |
| | 50 | 0102846 | S403 M-B 50 | 2CCS573001R0505 | | 0.322 | 3 |
| | 63 | 0102853 | S403 M-B 63 | 2CCS573001R0635 | | 0.322 | 3 |



**Where to find more:**
Technical details of SMISSLINE:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

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SMISSLINE auxiliary elements and accessories p.9/28
SMISSLINE busbar systems p.9/34

# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 C characteristic




S 401




S 402 M




S 403 M

### S400M Characteristic C

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898, IEC/EN 60947-2**

**Icn = 10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 0101320 | S401 M-C 0.5 | 2CCS571001R0984 | | 0.110 | 10 |
| | 1 | 0101337 | S401 M-C 1 | 2CCS571001R0014 | | 0.110 | 10 |
| | 1.6 | 0101344 | S401 M-C 1.6 | 2CCS571001R0974 | | 0.110 | 10 |
| | 2 | 0101351 | S401 M-C 2 | 2CCS571001R0024 | | 0.110 | 10 |
| | 3 | 0101368 | S401 M-C 3 | 2CCS571001R0034 | | 0.110 | 10 |
| | 4 | 0101375 | S401 M-C 4 | 2CCS571001R0044 | | 0.110 | 10 |
| | 6 | 0101382 | S401 M-C 6 | 2CCS571001R0064 | | 0.110 | 10 |
| | 8 | 0101399 | S401 M-C 8 | 2CCS571001R0084 | | 0.110 | 10 |
| | 10 | 0101405 | S401 M-C 10 | 2CCS571001R0104 | | 0.110 | 10 |
| | 13 | 0101412 | S401 M-C 13 | 2CCS571001R0134 | | 0.110 | 10 |
| | 16 | 0101429 | S401 M-C 16 | 2CCS571001R0164 | | 0.110 | 10 |
| | 20 | 0101436 | S401 M-C 20 | 2CCS571001R0204 | | 0.110 | 10 |
| | 25 | 0101443 | S401 M-C 25 | 2CCS571001R0254 | | 0.110 | 10 |
| | 32 | 0101450 | S401 M-C 32 | 2CCS571001R0324 | | 0.110 | 10 |
| | 40 | 0101467 | S401 M-C 40 | 2CCS571001R0404 | | 0.110 | 10 |
| | 50 | 0101474 | S401 M-C 50 | 2CCS571001R0504 | | 0.110 | 10 |
| | 63 | 0101481 | S401 M-C 63 | 2CCS571001R0634 | | 0.110 | 10 |
| 2 | 0.5 | 0102099 | S402 M-C 0.5 | 2CCS572001R0984 | | 0.221 | 5 |
| | 1 | 0102105 | S402 M-C 1 | 2CCS572001R0014 | | 0.221 | 5 |
| | 1.6 | 0102112 | S402 M-C 1.6 | 2CCS572001R0974 | | 0.221 | 5 |
| | 2 | 0102129 | S402 M-C 2 | 2CCS572001R0024 | | 0.221 | 5 |
| | 3 | 0102136 | S402 M-C 3 | 2CCS572001R0034 | | 0.221 | 5 |
| | 4 | 0102143 | S402 M-C 4 | 2CCS572001R0044 | | 0.221 | 5 |
| | 6 | 0102150 | S402 M-C 6 | 2CCS572001R0064 | | 0.221 | 5 |
| | 8 | 0102167 | S402 M-C 8 | 2CCS572001R0084 | | 0.221 | 5 |
| | 10 | 0102174 | S402 M-C 10 | 2CCS572001R0104 | | 0.221 | 5 |
| | 13 | 0102181 | S402 M-C 13 | 2CCS572001R0134 | | 0.221 | 5 |
| | 16 | 0102198 | S402 M-C 16 | 2CCS572001R0164 | | 0.221 | 5 |
| | 20 | 0102204 | S402 M-C 20 | 2CCS572001R0204 | | 0.221 | 5 |
| | 25 | 0102211 | S402 M-C 25 | 2CCS572001R0254 | | 0.221 | 5 |
| | 32 | 0102228 | S402 M-C 32 | 2CCS572001R0324 | | 0.221 | 5 |
| | 40 | 0102235 | S402 M-C 40 | 2CCS572001R0404 | | 0.221 | 5 |
| | 50 | 0102242 | S402 M-C 50 | 2CCS572001R0504 | | 0.221 | 5 |
| | 63 | 0102259 | S402 M-C 63 | 2CCS572001R0634 | | 0.221 | 5 |
| 3 | 0.5 | 0102860 | S403 M-C 0.5 | 2CCS573001R0984 | | 0.322 | 3 |
| | 1 | 0102877 | S403 M-C 1 | 2CCS573001R0014 | | 0.322 | 3 |
| | 1.6 | 0102884 | S403 M-C 1.6 | 2CCS573001R0974 | | 0.322 | 3 |
| | 2 | 0102891 | S403 M-C 2 | 2CCS573001R0024 | | 0.322 | 3 |
| | 3 | 0102907 | S403 M-C 3 | 2CCS573001R0034 | | 0.322 | 3 |
| | 4 | 0102914 | S403 M-C 4 | 2CCS573001R0044 | | 0.322 | 3 |
| | 6 | 0102921 | S403 M-C 6 | 2CCS573001R0064 | | 0.322 | 3 |
| | 8 | 0102938 | S403 M-C 8 | 2CCS573001R0084 | | 0.322 | 3 |
| | 10 | 0102945 | S403 M-C 10 | 2CCS573001R0104 | | 0.322 | 3 |
| | 13 | 0102952 | S403 M-C 13 | 2CCS573001R0134 | | 0.322 | 3 |
| | 16 | 0102969 | S403 M-C 16 | 2CCS573001R0164 | | 0.322 | 3 |
| | 20 | 0102976 | S403 M-C 20 | 2CCS573001R0204 | | 0.322 | 3 |
| | 25 | 0102983 | S403 M-C 25 | 2CCS573001R0254 | | 0.322 | 3 |
| | 32 | 0102990 | S403 M-C 32 | 2CCS573001R0324 | | 0.322 | 3 |
| | 40 | 0103003 | S403 M-C 40 | 2CCS573001R0404 | | 0.322 | 3 |
| | 50 | 0103010 | S403 M-C 50 | 2CCS573001R0504 | | 0.322 | 3 |
| | 63 | 0103027 | S403 M-C 63 | 2CCS573001R0634 | | 0.322 | 3 |



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# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 D characteristic



S 401



S 402 M



S 403 M

### S400M Characteristic D

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898**

**Icn = 10 kA**

| Number of poles | Rated current | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 1 | 6 | 0101498 | S401 M-D 6 | 2CCS571001R0061 | | 0.110 | 10 |
| | 8 | 0101504 | S401 M-D 8 | 2CCS571001R0081 | | 0.110 | 10 |
| | 10 | 0101511 | S401 M-D 10 | 2CCS571001R0101 | | 0.110 | 10 |
| | 13 | 0101528 | S401 M-D 13 | 2CCS571001R0131 | | 0.110 | 10 |
| | 16 | 0101535 | S401 M-D 16 | 2CCS571001R0161 | | 0.110 | 10 |
| | 20 | 0101542 | S401 M-D 20 | 2CCS571001R0201 | | 0.110 | 10 |
| | 25 | 0101559 | S401 M-D 25 | 2CCS571001R0251 | | 0.110 | 10 |
| | 32 | 0101566 | S401 M-D 32 | 2CCS571001R0321 | | 0.110 | 10 |
| | 40 | 0101573 | S401 M-D 40 | 2CCS571001R0401 | | 0.110 | 10 |
| | 50 | 0101580 | S401 M-D 50 | 2CCS571001R0501 | | 0.110 | 10 |
| | 63 | 0101597 | S401 M-D 63 | 2CCS571001R0631 | | 0.110 | 10 |
| 2 | 6 | 0102266 | S402 M-D 6 | 2CCS572001R0061 | | 0.221 | 5 |
| | 8 | 0102273 | S402 M-D 8 | 2CCS572001R0081 | | 0.221 | 5 |
| | 10 | 0102280 | S402 M-D 10 | 2CCS572001R0101 | | 0.221 | 5 |
| | 13 | 0102297 | S402 M-D 13 | 2CCS572001R0131 | | 0.221 | 5 |
| | 16 | 0102303 | S402 M-D 16 | 2CCS572001R0161 | | 0.221 | 5 |
| | 20 | 0102310 | S402 M-D 20 | 2CCS572001R0201 | | 0.221 | 5 |
| | 25 | 0102327 | S402 M-D 25 | 2CCS572001R0251 | | 0.221 | 5 |
| | 32 | 0102334 | S402 M-D 32 | 2CCS572001R0321 | | 0.221 | 5 |
| | 40 | 0102341 | S402 M-D 40 | 2CCS572001R0401 | | 0.221 | 5 |
| | 50 | 0102358 | S402 M-D 50 | 2CCS572001R0501 | | 0.221 | 5 |
| | 63 | 0102365 | S402 M-D 63 | 2CCS572001R0631 | | 0.221 | 5 |
| 3 | 6 | 0103034 | S403 M-D 6 | 2CCS573001R0061 | | 0.322 | 3 |
| | 8 | 0103041 | S403 M-D 8 | 2CCS573001R0081 | | 0.322 | 3 |
| | 10 | 0103058 | S403 M-D 10 | 2CCS573001R0101 | | 0.322 | 3 |
| | 13 | 0103065 | S403 M-D 13 | 2CCS573001R0131 | | 0.322 | 3 |
| | 16 | 0103072 | S403 M-D 16 | 2CCS573001R0161 | | 0.322 | 3 |
| | 20 | 0103089 | S403 M-D 20 | 2CCS573001R0201 | | 0.322 | 3 |
| | 25 | 0103096 | S403 M-D 25 | 2CCS573001R0251 | | 0.322 | 3 |
| | 32 | 0103102 | S403 M-D 32 | 2CCS573001R0321 | | 0.322 | 3 |
| | 40 | 0103119 | S403 M-D 40 | 2CCS573001R0401 | | 0.322 | 3 |
| | 50 | 0103126 | S403 M-D 50 | 2CCS573001R0501 | | 0.322 | 3 |
| | 63 | 0103133 | S403 M-D 63 | 2CCS573001R0631 | | 0.322 | 3 |

# SMISSLINE TP plug-in system
# MCBs S 400 M series 15000-10000 K characteristic




S 401




S 402 M




S 403 M

## S400M Characteristic K

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits. Advantages: no nuisance tripping in the case of functional peak currents up to 10xIn, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the over-current range; it also provides the best protection to cables and lines.

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu = 15 kA for 0.5 A ≤ In ≤ 40 A, Icu = 10 kA for 50 A ≤ In ≤ 63 A**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 0101603 | S401 M-K 0.5 | 2CCS571001R0157 | | 0.110 | 10 |
| | 1 | 0101610 | S401 M-K 1 | 2CCS571001R0217 | | 0.110 | 10 |
| | 1.6 | 0101627 | S401 M-K 1.6 | 2CCS571001R0257 | | 0.110 | 10 |
| | 2 | 0101634 | S401 M-K 2 | 2CCS571001R0277 | | 0.110 | 10 |
| | 3 | 0101641 | S401 M-K 3 | 2CCS571001R0317 | | 0.110 | 10 |
| | 4 | 0101658 | S401 M-K 4 | 2CCS571001R0337 | | 0.110 | 10 |
| | 6 | 0101665 | S401 M-K 6 | 2CCS571001R0377 | | 0.110 | 10 |
| | 8 | 0101672 | S401 M-K 8 | 2CCS571001R0407 | | 0.110 | 10 |
| | 10 | 0101689 | S401 M-K 10 | 2CCS571001R0427 | | 0.110 | 10 |
| | 13 | 0101696 | S401 M-K 13 | 2CCS571001R0447 | | 0.110 | 10 |
| | 16 | 0101702 | S401 M-K 16 | 2CCS571001R0467 | | 0.110 | 10 |
| | 20 | 0101719 | S401 M-K 20 | 2CCS571001R0487 | | 0.110 | 10 |
| | 25 | 0101726 | S401 M-K 25 | 2CCS571001R0517 | | 0.110 | 10 |
| | 32 | 0101733 | S401 M-K 32 | 2CCS571001R0537 | | 0.110 | 10 |
| | 40 | 0101740 | S401 M-K 40 | 2CCS571001R0557 | | 0.110 | 10 |
| | 50 | 0101757 | S401 M-K 50 | 2CCS571001R0577 | | 0.110 | 10 |
| | 63 | 0101764 | S401 M-K 63 | 2CCS571001R0597 | | 0.110 | 10 |
| 2 | 0.5 | 0102372 | S402 M-K 0.5 | 2CCS572001R0157 | | 0.221 | 5 |
| | 1 | 0102389 | S402 M-K 1 | 2CCS572001R0217 | | 0.221 | 5 |
| | 1.6 | 0102396 | S402 M-K 1.6 | 2CCS572001R0257 | | 0.221 | 5 |
| | 2 | 0102402 | S402 M-K 2 | 2CCS572001R0277 | | 0.221 | 5 |
| | 3 | 0102419 | S402 M-K 3 | 2CCS572001R0317 | | 0.221 | 5 |
| | 4 | 0102426 | S402 M-K 4 | 2CCS572001R0337 | | 0.221 | 5 |
| | 6 | 0102433 | S402 M-K 6 | 2CCS572001R0377 | | 0.221 | 5 |
| | 8 | 0102440 | S402 M-K 8 | 2CCS572001R0407 | | 0.221 | 5 |
| | 10 | 0102457 | S402 M-K 10 | 2CCS572001R0427 | | 0.221 | 5 |
| | 13 | 0102464 | S402 M-K 13 | 2CCS572001R0447 | | 0.221 | 5 |
| | 16 | 0102471 | S402 M-K 16 | 2CCS572001R0467 | | 0.221 | 5 |
| | 20 | 0102488 | S402 M-K 20 | 2CCS572001R0487 | | 0.221 | 5 |
| | 25 | 0102495 | S402 M-K 25 | 2CCS572001R0517 | | 0.221 | 5 |
| | 32 | 0102501 | S402 M-K 32 | 2CCS572001R0537 | | 0.221 | 5 |
| | 40 | 0102518 | S402 M-K 40 | 2CCS572001R0557 | | 0.221 | 5 |
| | 50 | 0102525 | S402 M-K 50 | 2CCS572001R0577 | | 0.221 | 5 |
| | 63 | 0102532 | S402 M-K 63 | 2CCS572001R0597 | | 0.221 | 5 |
| 3 | 0.5 | 0103140 | S403 M-K 0.5 | 2CCS573001R0157 | | 0.322 | 3 |
| | 1 | 0103157 | S403 M-K 1 | 2CCS573001R0217 | | 0.322 | 3 |
| | 1.6 | 0103164 | S403 M-K 1.6 | 2CCS573001R0257 | | 0.322 | 3 |
| | 2 | 0103171 | S403 M-K 2 | 2CCS573001R0277 | | 0.322 | 3 |
| | 3 | 0103188 | S403 M-K 3 | 2CCS573001R0317 | | 0.322 | 3 |
| | 4 | 0103195 | S403 M-K 4 | 2CCS573001R0337 | | 0.322 | 3 |
| | 6 | 0103201 | S403 M-K 6 | 2CCS573001R0377 | | 0.322 | 3 |
| | 8 | 0103218 | S403 M-K 8 | 2CCS573001R0407 | | 0.322 | 3 |
| | 10 | 0103225 | S403 M-K 10 | 2CCS573001R0427 | | 0.322 | 3 |
| | 13 | 0103232 | S403 M-K 13 | 2CCS573001R0447 | | 0.322 | 3 |
| | 16 | 0103249 | S403 M-K 16 | 2CCS573001R0467 | | 0.322 | 3 |
| | 20 | 0103256 | S403 M-K 20 | 2CCS573001R0487 | | 0.322 | 3 |
| | 25 | 0103263 | S403 M-K 25 | 2CCS573001R0517 | | 0.322 | 3 |
| | 32 | 0103270 | S403 M-K 32 | 2CCS573001R0537 | | 0.322 | 3 |
| | 40 | 0103287 | S403 M-K 40 | 2CCS573001R0557 | | 0.322 | 3 |
| | 50 | 0103294 | S403 M-K 50 | 2CCS573001R0577 | | 0.322 | 3 |
| | 63 | 0103300 | S403 M-K 63 | 2CCS573001R0597 | | 0.322 | 3 |



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# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 B characteristic




S 402 M




S 403 M

### S400M Characteristic B-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems. The neutral is full protected.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898**

**Icn = 10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 6 | 0103317 | S401 M-B 6NP | 2CCS571103R8065 | | 0.221 | 5 |
| | 8 | 0108473 | S401 M-B 8NP | 2CCS571103R8085 | | 0.221 | 5 |
| | 10 | 0103324 | S401 M-B 10NP | 2CCS571103R8105 | | 0.221 | 5 |
| | 13 | 0103331 | S401 M-B 13NP | 2CCS571103R8135 | | 0.221 | 5 |
| | 16 | 0103348 | S401 M-B 16NP | 2CCS571103R8165 | | 0.221 | 5 |
| | 20 | 0103355 | S401 M-B 20NP | 2CCS571103R8205 | | 0.221 | 5 |
| | 25 | 0103362 | S401 M-B 25NP | 2CCS571103R8255 | | 0.221 | 5 |
| | 32 | 0103379 | S401 M-B 32NP | 2CCS571103R8325 | | 0.221 | 5 |
| | 40 | 0103386 | S401 M-B 40NP | 2CCS571103R8405 | | 0.221 | 5 |
| | 50 | 0103393 | S401 M-B 50NP | 2CCS571103R8505 | | 0.221 | 5 |
| | 63 | 0103409 | S401 M-B 63NP | 2CCS571103R8635 | | 0.221 | 5 |
| 4 | 6 | 0103782 | S403 M-B 6NP | 2CCS573103R8065 | | 0.428 | 2 |
| | 8 | 0108510 | S403 M-B 8NP | 2CCS573103R8085 | | 0.428 | 2 |
| | 10 | 0103799 | S403 M-B 10NP | 2CCS573103R8105 | | 0.428 | 2 |
| | 13 | 0103805 | S403 M-B 13NP | 2CCS573103R8135 | | 0.428 | 2 |
| | 16 | 0103812 | S403 M-B 16NP | 2CCS573103R8165 | | 0.428 | 2 |
| | 20 | 0103829 | S403 M-B 20NP | 2CCS573103R8205 | | 0.428 | 2 |
| | 25 | 0103836 | S403 M-B 25NP | 2CCS573103R8255 | | 0.428 | 2 |
| | 32 | 0103843 | S403 M-B 32NP | 2CCS573103R8325 | | 0.428 | 2 |
| | 40 | 0103850 | S403 M-B 40NP | 2CCS573103R8405 | | 0.428 | 2 |
| | 50 | 0103867 | S403 M-B 50NP | 2CCS573103R8505 | | 0.428 | 2 |
| | 63 | 0103874 | S403 M-B 63NP | 2CCS573103R8635 | | 0.428 | 2 |

# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 C characteristic




S 402 M




S 403 M

### S400M Characteristic C-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The neutral is full protected.
**Applications: residential, commercial and industrial.**
**Standard: IEC/EN 60898, IEC/EN 60947-2**
**Icn = 10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 2 | 0108480 | S401 M-C 2NP | 2CCS571103R8024 | | 0.221 | 5 |
| | 3 | 0108497 | S401 M-C 3NP | 2CCS571103R8034 | | 0.221 | 5 |
| | 4 | 0108503 | S401 M-C 4NP | 2CCS571103R8044 | | 0.221 | 5 |
| | 6 | 0103416 | S401 M-C 6NP | 2CCS571103R8064 | | 0.221 | 5 |
| | 8 | 0103423 | S401 M-C 8NP | 2CCS571103R8084 | | 0.221 | 5 |
| | 10 | 0103430 | S401 M-C 10NP | 2CCS571103R8104 | | 0.221 | 5 |
| | 13 | 0103447 | S401 M-C 13NP | 2CCS571103R8134 | | 0.221 | 5 |
| | 16 | 0103454 | S401 M-C 16NP | 2CCS571103R8164 | | 0.221 | 5 |
| | 20 | 0103461 | S401 M-C 20NP | 2CCS571103R8204 | | 0.221 | 5 |
| | 25 | 0103478 | S401 M-C 25NP | 2CCS571103R8254 | | 0.221 | 5 |
| | 32 | 0103485 | S401 M-C 32NP | 2CCS571103R8324 | | 0.221 | 5 |
| | 40 | 0103492 | S401 M-C 40NP | 2CCS571103R8404 | | 0.221 | 5 |
| | 50 | 0103508 | S401 M-C 50NP | 2CCS571103R8504 | | 0.221 | 5 |
| | 63 | 0103515 | S401 M-C 63NP | 2CCS571103R8634 | | 0.221 | 5 |
| 4 | 2 | 0108527 | S403 M-C 2NP | 2CCS573103R8024 | | 0.564 | 2 |
| | 3 | 0108534 | S403 M-C 3NP | 2CCS573103R8034 | | 0.564 | 2 |
| | 4 | 0108541 | S403 M-C 4NP | 2CCS573103R8044 | | 0.564 | 2 |
| | 6 | 0103881 | S403 M-C 6NP | 2CCS573103R8064 | | 0.564 | 2 |
| | 8 | 0103898 | S403 M-C 8NP | 2CCS573103R8084 | | 0.564 | 2 |
| | 10 | 0103904 | S403 M-C 10NP | 2CCS573103R8104 | | 0.564 | 2 |
| | 13 | 0103911 | S403 M-C 13NP | 2CCS573103R8134 | | 0.564 | 2 |
| | 16 | 0103928 | S403 M-C 16NP | 2CCS573103R8164 | | 0.564 | 2 |
| | 20 | 0103935 | S403 M-C 20NP | 2CCS573103R8204 | | 0.564 | 2 |
| | 25 | 0103942 | S403 M-C 25NP | 2CCS573103R8254 | | 0.564 | 2 |
| | 32 | 0103959 | S403 M-C 32NP | 2CCS573103R8324 | | 0.564 | 2 |
| | 40 | 0103966 | S403 M-C 40NP | 2CCS573103R8404 | | 0.564 | 2 |
| | 50 | 0103973 | S403 M-C 50NP | 2CCS573103R8504 | | 0.564 | 2 |
| | 63 | 0103980 | S403 M-C 63NP | 2CCS573103R8634 | | 0.564 | 2 |



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# SMISSLINE TP plug-in system
## MCBs S 400 M series 10000 D characteristic




S 402 M




S 403 M

### S400M Characteristic D-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps). The neutral is full protected.

**Applications: residential, commercial and industrial.**

**Standard: IEC/EN 60898**

**Icn = 10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 0103522 | S401 M-D 10NP | 2CCS571103R8101 | | 0.221 | 5 |
| | 13 | 0103539 | S401 M-D 13NP | 2CCS571103R8131 | | 0.221 | 5 |
| | 16 | 0103546 | S401 M-D 16NP | 2CCS571103R8161 | | 0.221 | 5 |
| | 20 | 0103553 | S401 M-D 20NP | 2CCS571103R8201 | | 0.221 | 5 |
| | 25 | 0103560 | S401 M-D 25NP | 2CCS571103R8251 | | 0.221 | 5 |
| | 32 | 0103577 | S401 M-D 32NP | 2CCS571103R8321 | | 0.221 | 5 |
| | 40 | 0103584 | S401 M-D 40NP | 2CCS571103R8401 | | 0.221 | 5 |
| | 50 | 0103591 | S401 M-D 50NP | 2CCS571103R8501 | | 0.221 | 5 |
| | 63 | 0103607 | S401 M-D 63NP | 2CCS571103R8631 | | 0.221 | 5 |
| 4 | 10 | 0103997 | S403 M-D 10NP | 2CCS573103R8101 | | 0.428 | 2 |
| | 13 | 0104000 | S403 M-D 13NP | 2CCS573103R8131 | | 0.428 | 2 |
| | 16 | 0104017 | S403 M-D 16NP | 2CCS573103R8161 | | 0.428 | 2 |
| | 20 | 0104024 | S403 M-D 20NP | 2CCS573103R8201 | | 0.428 | 2 |
| | 25 | 0104031 | S403 M-D 25NP | 2CCS573103R8251 | | 0.428 | 2 |
| | 32 | 0104048 | S403 M-D 32NP | 2CCS573103R8321 | | 0.428 | 2 |
| | 40 | 0104055 | S403 M-D 40NP | 2CCS573103R8401 | | 0.428 | 2 |
| | 50 | 0104062 | S403 M-D 50NP | 2CCS573103R8501 | | 0.428 | 2 |
| | 63 | 0104079 | S403 M-D 63NP | 2CCS573103R8631 | | 0.428 | 2 |

# SMISSLINE TP plug-in system
# MCBs S 400 M series 15000-10000 K characteristic




S 402 M




S 403 M

## S400M Characteristic K-NP

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10 x In, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines. The neutral is full protected

**Applications: commercial and industrial.**

**Standard: IEC/EN 60947-2**

**Icu = 15 kA for 0.5 A ≤ In ≤ 40 A, Icu = 10 kA for 50 A ≤ In ≤ 63 A**

| Number of poles | Rated current | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|
| | In A | EAN | Type code | Order code | | kg | pc. |
| 2 | 0.5 | 0103614 | S401 M-K 0.5NP | 2CCS571103R8157 | | 0.221 | 5 |
| | 1 | 0103621 | S401 M-K 1NP | 2CCS571103R8217 | | 0.221 | 5 |
| | 1.6 | 0103638 | S401 M-K 1.6NP | 2CCS571103R8257 | | 0.221 | 5 |
| | 2 | 0103645 | S401 M-K 2NP | 2CCS571103R8277 | | 0.221 | 5 |
| | 3 | 0103652 | S401 M-K 3NP | 2CCS571103R8317 | | 0.221 | 5 |
| | 4 | 0103669 | S401 M-K 4NP | 2CCS571103R8337 | | 0.221 | 5 |
| | 6 | 0103676 | S401 M-K 6NP | 2CCS571103R8377 | | 0.221 | 5 |
| | 8 | 0103683 | S401 M-K 8NP | 2CCS571103R8407 | | 0.221 | 5 |
| | 10 | 0103690 | S401 M-K 10NP | 2CCS571103R8427 | | 0.221 | 5 |
| | 13 | 0103706 | S401 M-K 13NP | 2CCS571103R8447 | | 0.221 | 5 |
| | 16 | 0103713 | S401 M-K 16NP | 2CCS571103R8467 | | 0.221 | 5 |
| | 20 | 0103720 | S401 M-K 20NP | 2CCS571103R8487 | | 0.221 | 5 |
| | 25 | 0103737 | S401 M-K 25NP | 2CCS571103R8517 | | 0.221 | 5 |
| | 32 | 0103744 | S401 M-K 32NP | 2CCS571103R8537 | | 0.221 | 5 |
| | 40 | 0103751 | S401 M-K 40NP | 2CCS571103R8557 | | 0.221 | 5 |
| | 50 | 0103768 | S401 M-K 50NP | 2CCS571103R8577 | | 0.221 | 5 |
| | 63 | 0103775 | S401 M-K 63NP | 2CCS571103R8597 | | 0.221 | 5 |
| 4 | 0.5 | 0104086 | S403 M-K 0.5NP | 2CCS573103R8157 | | 0.428 | 2 |
| | 1 | 0104093 | S403 M-K 1NP | 2CCS573103R8217 | | 0.428 | 2 |
| | 1.6 | 0104109 | S403 M-K 1.6NP | 2CCS573103R8257 | | 0.428 | 2 |
| | 2 | 0104116 | S403 M-K 2NP | 2CCS573103R8277 | | 0.428 | 2 |
| | 3 | 0104123 | S403 M-K 3NP | 2CCS573103R8317 | | 0.428 | 2 |
| | 4 | 0104130 | S403 M-K 4NP | 2CCS573103R8337 | | 0.428 | 2 |
| | 6 | 0104147 | S403 M-K 6NP | 2CCS573103R8377 | | 0.428 | 2 |
| | 8 | 0104154 | S403 M-K 8NP | 2CCS573103R8407 | | 0.428 | 2 |
| | 10 | 0104161 | S403 M-K 10NP | 2CCS573103R8427 | | 0.428 | 2 |
| | 13 | 0104178 | S403 M-K 13NP | 2CCS573103R8447 | | 0.428 | 2 |
| | 16 | 0104185 | S403 M-K 16NP | 2CCS573103R8467 | | 0.428 | 2 |
| | 20 | 0104192 | S403 M-K 20NP | 2CCS573103R8487 | | 0.428 | 2 |
| | 25 | 0104208 | S403 M-K 25NP | 2CCS573103R8517 | | 0.428 | 2 |
| | 32 | 0104215 | S403 M-K 32NP | 2CCS573103R8537 | | 0.428 | 2 |
| | 40 | 0104222 | S403 M-K 40NP | 2CCS573103R8557 | | 0.428 | 2 |
| | 50 | 0104239 | S403 M-K 50NP | 2CCS573103R8577 | | 0.428 | 2 |
| | 63 | 0104246 | S403 M-K 63NP | 2CCS573103R8597 | | 0.428 | 2 |



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# SMISSLINE TP plug-in system
## MCBs S 400 M-UC series 10000 C characteristic, DC application




1 P 220V d.c.




2 P 440V d.c.

### S400UC Characteristic C

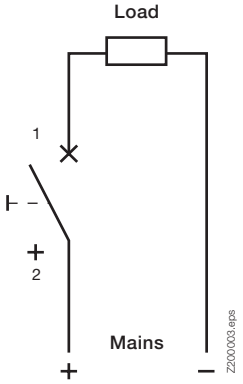
Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

**Applications: residential, commercial and industrial.**

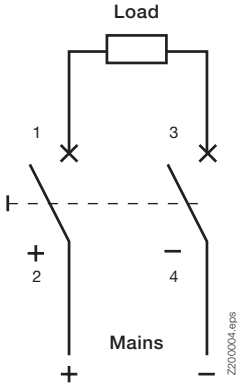
**Standard: IEC/EN 60947-2**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 0109746 | S401M-UCC0.5 | 2CCS561001R1984 | | 0.110 | 10 |
| | 1 | 0109753 | S401M-UCC1 | 2CCS561001R1014 | | 0.110 | 10 |
| | 1.6 | 0109760 | S401M-UCC1.6 | 2CCS561001R1974 | | 0.110 | 10 |
| | 2 | 0109777 | S401M-UCC2 | 2CCS561001R1024 | | 0.110 | 10 |
| | 3 | 0109784 | S401M-UCC3 | 2CCS571001R1034 | | 0.110 | 10 |
| | 4 | 0109791 | S401M-UCC4 | 2CCS571001R1044 | | 0.110 | 10 |
| | 6 | 0109807 | S401M-UCC6 | 2CCS571001R1064 | | 0.110 | 10 |
| | 8 | 0109814 | S401M-UCC8 | 2CCS571001R1084 | | 0.110 | 10 |
| | 10 | 0109821 | S401M-UCC10 | 2CCS571001R1104 | | 0.110 | 10 |
| | 13 | 0109838 | S401M-UCC13 | 2CCS571001R1134 | | 0.110 | 10 |
| | 16 | 0109845 | S401M-UCC16 | 2CCS571001R1164 | | 0.110 | 10 |
| | 20 | 0109852 | S401M-UCC20 | 2CCS571001R1204 | | 0.110 | 10 |
| | 25 | 0109869 | S401M-UCC25 | 2CCS571001R1254 | | 0.110 | 10 |
| | 32 | 0109876 | S401M-UCC32 | 2CCS571001R1324 | | 0.110 | 10 |
| | 40 | 0109883 | S401M-UCC40 | 2CCS571001R1404 | | 0.110 | 10 |
| | 50 | 0109890 | S401M-UCC50 | 2CCS571001R1504 | | 0.110 | 10 |
| | 63 | 0109906 | S401M-UCC63 | 2CCS571001R1634 | | 0.110 | 10 |
| 2 | 0.5 | 0109913 | S402M-UCC0.5 | 2CCS562001R1984 | | 0.221 | 5 |
| | 1 | 0109920 | S402M-UCC1 | 2CCS562001R1014 | | 0.221 | 5 |
| | 1.6 | 0109937 | S402M-UCC1.6 | 2CCS562001R1974 | | 0.221 | 5 |
| | 2 | 0109944 | S402M-UCC2 | 2CCS562001R1024 | | 0.221 | 5 |
| | 3 | 0109951 | S402M-UCC3 | 2CCS572001R1034 | | 0.221 | 5 |
| | 4 | 0109968 | S402M-UCC4 | 2CCS572001R1044 | | 0.221 | 5 |
| | 6 | 0109975 | S402M-UCC6 | 2CCS572001R1064 | | 0.221 | 5 |
| | 8 | 0109982 | S402M-UCC8 | 2CCS572001R1084 | | 0.221 | 5 |
| | 10 | 0109999 | S402M-UCC10 | 2CCS572001R1104 | | 0.221 | 5 |
| | 13 | 0110001 | S402M-UCC13 | 2CCS572001R1134 | | 0.221 | 5 |
| | 16 | 0110018 | S402M-UCC16 | 2CCS572001R1164 | | 0.221 | 5 |
| | 20 | 0110025 | S402M-UCC20 | 2CCS572001R1204 | | 0.221 | 5 |
| | 25 | 0110032 | S402M-UCC25 | 2CCS572001R1254 | | 0.221 | 5 |
| | 32 | 0110049 | S402M-UCC32 | 2CCS572001R1324 | | 0.221 | 5 |
| | 40 | 0110056 | S402M-UCC40 | 2CCS572001R1404 | | 0.221 | 5 |
| | 50 | 0110063 | S402M-UCC50 | 2CCS572001R1504 | | 0.221 | 5 |
| | 63 | 0110070 | S402M-UCC63 | 2CCS572001R1634 | | 0.221 | 5 |

Connection diagram,
single-pole (max. 220V d.c.) S401M-UCC




Connection diagram,
two-pole (max. 440V d.c.) S402M-UCC



# SMISSLINE TP plug-in system
## MCBs S 400 M-UC series 10000 Z characteristic, DC application




1 P 220V d.c.




2 P 440V d.c.

### S400UC Characteristic Z

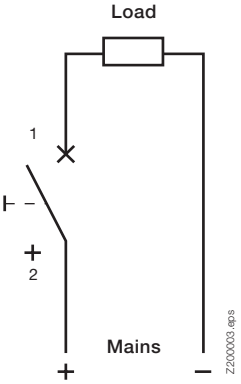
Function: protection and control of the electronic circuits against weak and long duration overloads and short-circuits.

**Applications: commercial and industrial.**

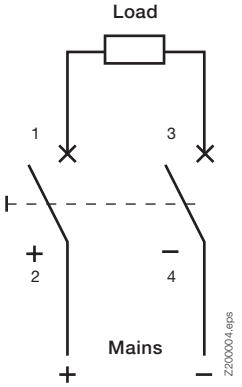
**Standard: IEC/EN 60947-2**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 1 | 0.5 | 0110087 | S401M-UCZ0.5 | 2CCS561001R1988 | | 0.110 | 10 |
| | 1 | 0110094 | S401M-UCZ1 | 2CCS561001R1018 | | 0.110 | 10 |
| | 1.6 | 0110100 | S401M-UCZ1.6 | 2CCS561001R1978 | | 0.110 | 10 |
| | 2 | 0110117 | S401M-UCZ2 | 2CCS561001R1028 | | 0.110 | 10 |
| | 3 | 0110124 | S401M-UCZ3 | 2CCS571001R1038 | | 0.110 | 10 |
| | 4 | 0110131 | S401M-UCZ4 | 2CCS571001R1048 | | 0.110 | 10 |
| | 6 | 0110148 | S401M-UCZ6 | 2CCS571001R1068 | | 0.110 | 10 |
| | 8 | 0110155 | S401M-UCZ8 | 2CCS571001R1088 | | 0.110 | 10 |
| | 10 | 0110162 | S401M-UCZ10 | 2CCS571001R1108 | | 0.110 | 10 |
| | 13 | 0110179 | S401M-UCZ13 | 2CCS571001R1138 | | 0.110 | 10 |
| | 16 | 0110186 | S401M-UCZ16 | 2CCS571001R1168 | | 0.110 | 10 |
| | 20 | 0110193 | S401M-UCZ20 | 2CCS571001R1208 | | 0.110 | 10 |
| | 25 | 0110209 | S401M-UCZ25 | 2CCS571001R1258 | | 0.110 | 10 |
| | 32 | 0110216 | S401M-UCZ32 | 2CCS571001R1328 | | 0.110 | 10 |
| | 40 | 0110223 | S401M-UCZ40 | 2CCS571001R1408 | | 0.110 | 10 |
| | 50 | 0110230 | S401M-UCZ50 | 2CCS571001R1508 | | 0.110 | 10 |
| | 63 | 0110247 | S401M-UCZ63 | 2CCS571001R1638 | | 0.110 | 10 |
| 2 | 0.5 | 0110254 | S402M-UCZ0.5 | 2CCS562001R1988 | | 0.221 | 10 |
| | 1 | 0110261 | S402M-UCZ1 | 2CCS562001R1018 | | 0.221 | 10 |
| | 1.6 | 0110278 | S402M-UCZ1.6 | 2CCS562001R1978 | | 0.221 | 10 |
| | 2 | 0110285 | S402M-UCZ2 | 2CCS562001R1028 | | 0.221 | 10 |
| | 3 | 0110292 | S402M-UCZ3 | 2CCS572001R1038 | | 0.221 | 10 |
| | 4 | 0110308 | S402M-UCZ4 | 2CCS572001R1048 | | 0.221 | 10 |
| | 6 | 0110315 | S402M-UCZ6 | 2CCS572001R1068 | | 0.221 | 10 |
| | 8 | 0110322 | S402M-UCZ8 | 2CCS572001R1088 | | 0.221 | 10 |
| | 10 | 0110339 | S402M-UCZ10 | 2CCS572001R1108 | | 0.221 | 10 |
| | 13 | 0110346 | S402M-UCZ13 | 2CCS572001R1138 | | 0.221 | 10 |
| | 16 | 0110353 | S402M-UCZ16 | 2CCS572001R1168 | | 0.221 | 10 |
| | 20 | 0110360 | S402M-UCZ20 | 2CCS572001R1208 | | 0.221 | 10 |
| | 25 | 0110377 | S402M-UCZ25 | 2CCS572001R1258 | | 0.221 | 10 |
| | 32 | 0110384 | S402M-UCZ32 | 2CCS572001R1328 | | 0.221 | 10 |
| | 40 | 0110391 | S402M-UCZ40 | 2CCS572001R1408 | | 0.221 | 10 |
| | 50 | 0110407 | S402M-UCZ50 | 2CCS572001R1508 | | 0.221 | 10 |
| | 63 | 0110414 | S402M-UCZ63 | 2CCS572001R1638 | | 0.221 | 10 |

Connection diagram,
single-pole (max. 220V d.c.) S401M-UCZ




Connection diagram,
two-pole (max. 440V d.c.) S402M-UCZ




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# SMISSLINE TP plug-in system
## RCCBs F400 series, A type




FS 402

| | F402 | F404 |
|---|---|---|
| Rated voltage Un: | 230 V | 230/400 V |
| Number of poles: | 2 | 4 |
| Rated frequency fn: | 50/60 Hz | 50/60 Hz (for Type LF $16^{2}/_{3}$ Hz) |
| Rated breaking capacity Im: | | 1000 A |
| Total trip time (average value) | | |
| – at IΔn | ≤ 300 ms | ≤ 300 ms |
| – at 5 IΔn | ≤ 40 ms | ≤ 40 ms |
| Delay time at 5 IΔn: | – | – |
| Resistance to short circuits (kA): | 10 kA<br>in conjunction with an upstream fuse<br>gL / gG 100 A or a high performance<br>MCB S800, 100 A | 10 kA<br>in conjunction with an upstream fuse<br>gL / gG 100 A or a high performance<br>MCB S800, 100 A |
| Connection<br>load side terminal | Double lift terminal touch finger-proof, suitable for connecting<br>single-, multi- and fine-wire conductors of up to 25 $mm^2$ | |
| Degree of protection: | IP20 inside panel IP40 | IP20 inside panel IP40 |
| Endurance: | > 5000 operating cycles | > 5000 operating cycles |
| Resistance to climate acc. to: | EN 61008 | EN 61008 |
| Mounting position: | any | any |
| Ambient temperature: | –25 °C … +40 °C | –25 °C … +55 °C<br>acc. to EN 61009 |
| Vibration resistance: | 5 g<br>5 … 150 … 5 Hz | 5 g<br>5 … 150 … 5 Hz |
| Plastic parts: | halogen-free | halogen-free |
| Contacts: | cadmium-free | cadmium-free |

# SMISSLINE TP plug-in system
## RCCBs F400 series, A type




FS 402




F404

### F402 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with IΔn = 30 mA) contacts.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I∆n mA | Rated current In A | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 10 | 25 | 2037033 | F402 A 25/0.01 | 2CSF502110R0250 | | 0.250 | 2 |
| | 30 | 25 | 2034339 | F402 A 25/0.03 | 2CSF502110R1250 | | 0.250 | 2 |
| | 30 | 40 | 2036937 | F402 A 40/0.03 | 2CSF502110R1400 | | 0.250 | 2 |
| | 100 | 40 | 2034230 | F402 A 40/0.1 | 2CSF502110R2400 | | 0.250 | 2 |

### F404 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with IΔn = 30 mA) contacts. Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I∆n mA | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 25 | 0104253 | F404 A 25/0.03 | 2CCF544110E0250 | | 0.430 | 1 |
| | 30 | 40 | 0104260 | F404 A 40/0.03 | 2CCF544110E0400 | | 0.430 | 1 |
| | 100 | 40 | 0104277 | F404 A 40/0.1 | 2CCF544120E0400 | | 0.430 | 1 |
| | 300 | 40 | 0104284 | F404 A 40/0.3 | 2CCF544130E0400 | | 0.430 | 1 |
| | 30 | 63 | 0104291 | F404 A 63/0.03 | 2CCF544110E0630 | | 0.430 | 1 |
| | 100 | 63 | 0104307 | F404 A 63/0.1 | 2CCF544120E0630 | | 0.430 | 1 |
| | 300 | 63 | 0104314 | F404 A 63/0.3 | 2CCF544130E0630 | | 0.430 | 1 |
| | 500 | 63 | 1401566 | F404 A 63/0.5 | 2CCF600517E0630 | | 0.430 | 1 |

### F404 A type $16^{2}/_{3}$ Hz

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with IΔn = 30 mA) contacts.

The RCCB F200 $16^{2}/_{3}$ Hz can work at rated frequency of $16^{2}/_{3}$ Hz which is common in railways applications

**Application: railways**

**Standard: IEC/ EN 61008**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I∆n mA | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 63 | 0104376 | F404 A-LF 63/0.03 | 2CCF544110E0631 | | 0.430 | 1 |
| | 300 | 63 | 0104383 | F404 A-LF 63/0.3 | 2CCF544130E0631 | | 0.430 | 1 |


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# SMISSLINE TP plug-in system
## RCCBs F400 series, A APR type




FS 402 K and S

| | F402…K | F404…K | F404…S |
|---|---|---|---|
| Rated voltage Un: | 230 V | 230/400 V | 230/400 V |
| Number of poles: | 2 | 4 | 4 |
| Rated frequency fn: | 45 … 60 Hz | 45 … 60 Hz | 45 … 60 Hz |
| Resistance to surge current: | 3 kA<br>8/20 µs | 3 kA<br>8/20 µs | 5 kA<br>8/20 µs |
| Total trip time (average value) | | | |
| – at I∆n | 240 ms | 120 … 300 ms | 150 … 500 ms |
| – at 5 I∆n | ≤ 40 ms | | 40 …150 ms |
| Delay time at 5 I∆n: | 10 ms | 10 ms | 90 ms |
| Resistance to short circuits (kA): | 10 kA<br>in conjunction with an upstream fuse gL / gG 100 A or or a high performance MCB S800 100 A | 10 kA | 10 kA |
| Connection<br>load side terminal | Double lift terminal touch finger-proof, suitable for connecting single-, multi- and fine-wire conductors of up to 25 $mm^2$ | | |
| Degree of protection: | IP20 in panel IP40 | IP20 in panel IP40 | IP20 in panel IP40 |
| Endurance: | > 5000 operating cycles | > 5000 operating cycles | > 5000 operating cycles |
| Resistance to climate acc. to: | EN 61008 | EN 61008 | EN 61008 |
| Mounting position: | any | any | any |
| Ambient temperature: | –25 °C … +40 °C | –25 °C … +55 °C | –25 °C … +40 °C |
| Vibration resistance: | 5 g<br>5 … 150 … 5 Hz | 5 g<br>5 … 150 … 5 Hz | 5 g<br>5 … 150 … 5 Hz |
| Plastic parts: | halogen-free | halogen-free | halogen-free |
| Contacts: | cadmium-free | cadmium-free | cadmium-free |

# SMISSLINE TP plug-in system
## RCCBs F400 series, A K type




FS 402 K and S




FS 404 K and S

### F402 A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct (I$\Delta$n = 30 mA) contacts.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20) = 3000 A**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I$\Delta$n mA | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 2 | 30 | 40 | 0104482 | F402 A-K 40/0.03 | 2CCF552310E0400 | | 0.250 | 2 |

### F404 A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct (I$\Delta$n = 30 mA) contacts.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20) = 3000 A**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I$\Delta$n mA | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 40 | 0104321 | F404 A-K 40/0.03 | 2CCF544310E0400 | | 0.430 | 1 |
| | 100 | 40 | 0104338 | F404 A-K 40/0.1 | 2CCF544320E0400 | | 0.430 | 1 |
| | 30 | 63 | 0104345 | F404 A-K 63/0.03 | 2CCF544310E0630 | | 0.430 | 1 |

### F404 A selective type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts.

**Application: commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20)=5000 A**

**Marking: according to EN 61008**

| Number of poles | Rated residual current I$\Delta$n mA | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 4 | 100 | 63 | 0104352 | F404 A-S 63/0.1 | 2CCF544220E0630 | | 0.430 | 1 |
| | 300 | 63 | 0104369 | F404 A-S 63/0.3 | 2CCF544230E0630 | | 0.430 | 1 |

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# SMISSLINE TP plug-in system
# RCBOs FS401 series 10000-6000 A type




FS 401 M

| | FS401 | FS401K |
|---|---|---|
| Rated voltage Un: | 230 V ~ | |
| Upstream fuses and Selectivity limits: | For backup and selectivity, the details for the miniature circuit breakers S400 E and S400 M in Chapter 2 of Solutions for electrical distribution in buildings - Technical details. | |
| Number of poles: | 2-pole (1PN) | |
| Rated frequency fn: | 50/60 Hz | |
| Rated breaking capacity Icn: | 10 kA – 230 V ~ (10–16 A nominal current) | |
| | 6 kA – 230 V ~ (20–32 A nominal current) | |
| Current limitation class: | 3 | |
| Total cut-off time (average value) acc. to | EN 61009-1 | EN 61009-1 |
| – at In | 40 ms | 240 ms |
| – at 5 IΔn | 25 ms | 35 ms |
| Delay time at 5 IΔn: | – | 10 ms |
| Connection cross-sections | Opposing action stroke clamp on cylinder, touch finger-proof. Suitable for connecting | |
| Terminal at load end | single, multi- and fine-wire conductors of up to 25 $mm^2$ | |
| Degree of protection: | IP20 inside panel IP40 | |
| Endurance: | > 5000 operating cycles | |
| Resistance to climate, acc. to: | EN 61009 | |
| Mounting position: | any | |
| Ambient temperature: | –25 °C ... +40 °C | |
| Vibration resistance: | 5 g | |
| | 5 ... 150 ... 5 Hz | |
| Plastic parts: | halogen-free | |
| Contacts: | cadmium-free | |

Please notice:
For the influence of the ambient temperature and the thermal influences of row mounted RCBO's it is necessary to calculate with the same correction factors like with MCB's.

## Residual current operated circuit breakers with overcurrent protection (RCBO)

The SMISSLINE residual current operated circuit breakers with overcurrent protection (RCBO) are ideal for protecting people and property in all new and existing distribution systems. The combination of standby current and cable protection in one single device greatly simplifies planning and offers cost benefits. Using a RCBO can e.g. satisfy the minimum level of protection required by regulations in an apartment or in a particular distribution system. Should a residual current arise, only the circuit directly affected is switched off while all other circuits remain in operation.

The short time-delayed residual current operated circuit breaker with overcurrent protection FS401 K is a version particularly suited to unfavourable distribution and load situations. Without limiting the personal protection function in any way, the electronic short time delay prevents nuisance tripping which may arise as a result of capacitive discharge currents.

# SMISSLINE TP plug-in system
# RCBOs FS401 series 10000-6000 A type




FS 401 M

## FS401E A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009**

**Icn = 6 kA, Icn =10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 13 | 0108558 | FS401 E-B 13/0.03 | 2CCL562111E0135 | | 0.250 | 2 |
| | 16 | 0108565 | FS401 E-B 16/0.03 | 2CCL562111E0165 | | 0.250 | 2 |
| | 20 | 0109692 | FS401 E-B 20/0.03 | 2CCL562111E0205 | | 0.250 | 2 |
| | 25 | 0109708 | FS401 E-B 25/0.03 | 2CCL562111E0255 | | 0.250 | 2 |
| | 32 | 0109715 | FS401 E-B 32/0.03 | 2CCL562111E0325 | | 0.250 | 2 |
| | 13 | 0108572 | FS401 E-C 13/0.03 | 2CCL562111E0134 | | 0.250 | 2 |
| | 16 | 0108589 | FS401 E-C 16/0.03 | 2CCL562111E0164 | | 0.250 | 2 |
| | 20 | 0104574 | FS401 E-C 20/0.03 | 2CCL562110E0204 | | 0.250 | 2 |
| | 25 | 0104581 | FS401 E-C 25/0.03 | 2CCL562110E0254 | | 0.250 | 2 |
| | 32 | 0104598 | FS401 E-C 32/0.03 | 2CCL562110E0324 | | 0.250 | 2 |
| | 6 | 1424534 | FS401 M-C6/0.1 | 2CCL562120E0064 | | 0.240 | 2 |
| | 10 | 1413217 | FS401 M-C10/0.1 | 2CCL562120E0104 | | 0.240 | 2 |
| | 16 | 1421618 | FS401 M-C16/0.1 | 2CCL562120E0164 | | 0.240 | 2 |
| | 20 | 1421083 | FS401 E-C20/0.1 | 2CCL562120E0204 | | 0.240 | 2 |
| | 25 | 1414825 | FS401 E-C25/0.1 | 2CCL562120E0254 | | 0.240 | 2 |
| | 32 | 1400446 | FS401 E-C32/0.1 | 2CCL562120E0324 | | 0.240 | 2 |

## FS401 M A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (IΔn=30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009**

**Icn =10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 0109685 | FS401 M-B 10/0.03 | 2CCL562110E0105 | | 0.250 | 2 |
| | 13 | 0104505 | FS401 M-B 13/0.03 | 2CCL562110E0135 | | 0.250 | 2 |
| | 16 | 0104512 | FS401 M-B 16/0.03 | 2CCL562110E0165 | | 0.250 | 2 |
| | 6 | 1406493 | FS401 M-C 6/0.01 | 2CCL562000E0064 | | 0.250 | 2 |
| | 6 | 1406905 | FS401 M-C 6/0.03 | 2CCL562010E0064 | | 0.250 | 2 |
| | 10 | 0104543 | FS401 M-C 10/0.03 | 2CCL562110E0104 | | 0.250 | 2 |
| | 13 | 0104529 | FS401 M-C 13/0.01 | 2CCL562100E0134 | | 0.250 | 2 |
| | 13 | 0104550 | FS401 M-C 13/0.03 | 2CCL562110E0134 | | 0.250 | 2 |
| | 16 | 0104536 | FS401 M-C 16/0.01 | 2CCL562100E0164 | | 0.250 | 2 |
| | 16 | 0104567 | FS401 M-C 16/0.03 | 2CCL562110E0164 | | 0.250 | 2 |

**Where to find more:**
Technical details of SMISSLINE:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

**Maybe you are also interested in:**
SMISSLINE auxiliary elements and accessories p.9/28
SMISSLINE busbar systems p.9/34

# SMISSLINE TP plug-in system
# RCBOs FS401 series 10000 A K type

### F401 M A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct (IΔn = 30 mA) contact; protection and isolation of resistive and inductive loads.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009**

**Icn = 10 kA**

| Number of poles | Rated current In A | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 1404031 | FS401 M K-C 10/0.03 | 2CCL562310E0104 | | 0.250 | 2 |
| | 13 | 0104604 | FS401 M K-C 13/0.03 | 2CCL562310E0134 | | 0.250 | 2 |
| | 16 | 0104611 | FS401 M K-C 16/0.03 | 2CCL562310E0164 | | 0.250 | 2 |
| | 20 | 0104628 | FS401 E K-C 20/0.03 | 2CCL562310E0204 | | 0.250 | 2 |
| | 25 | 0104635 | FS401 E K-C 25/0.03 | 2CCL562310E0254 | | 0.250 | 2 |
| | 32 | 0104642 | FS401 E K-C 32/0.03 | 2CCL562310E0324 | | 0.250 | 2 |

# SMISSLINE TP plug-in system
# RCBOs FS403 series 10000-6000 A type and short time delay Type F




FS 403 M

| | FS403 |
|---|---|
| Rated voltage Un | 240/415V |
| Number of poles | 4 |
| Rated frequency fn | 50/60 Hz |
| Rated breaking capacity Icn | 10 kA (10 A to 16 A)<br>6 kA (20 A to 32 A) |
| Current limitation class | 3 |
| Total cut-off time acc. to EN 61009 | |
| at In | 40 ms |
| at 5x In | 25 ms |
| Connection cross-section | max. 25 mm² flexible wire with wire end sleeve |
| Terminal at load side | Possible to connect 2 wires in one chamber.<br>Both chambers could be used with two different cross-sections. |
| Tightening torque | 2.8 Nm |
| Degree of protection | IP20 |
| Endurance | >5000 |
| Resistance to climate | EN 61009 |
| Ambient temperature | –25° C … +40° C |
| Mounting position | any |
| Vibration resistance | EN 61009 |
| Plastic parts | halogen-free |
| Contacts | cadmium-free |
| Standard | EN61009-1, S+ (in preparation) |

Accessory:
Auxiliary- and signal contacts are to attach on to the left of the device through the customer.

Please notice:
For the influence of the ambient temperature and the thermal influences of row mounted RCBO's it is necessary to calculate with the same correction factors like with MCBs.

Please see in Chapter 2 of Solutions for electrical distribution in buildings - Technical details.

## 4-pole RCBO from the ABB SMISSLINE protective devices range

The combination of circuit protection and a residual current protection in one device as 4-pole RCBO simplifies both – planning and installation. It enables you to provide perfect protection in one device. This protection consists of:

- Short circuit protection
- Overload protection
- Residual current protection
- Preventive fire protection

## High rated short-circuit breaking capacity of 10 kA, conforming to EN 61009-1

The $I_{cn}$ 10 kA short-circuit breaking capacity of the RCBO complies with standard EN 61009-1. This standard specifies testing and usage of RCBO's for household and similar uses. The devices can also be used by non-professionals.

Features and benefits of the new devices:

- Overall width of 72 mm (4 modules)
- Rated sensitivity 30 mA
- Current rating 10 A to 32 A
- B and C tripping characteristics
- Easy Drive double deck terminals on the output side for connecting two conductors in one chamber. The two chambers can accommodate conductors with different cross sections.

**Where to find more:**
Technical details of SMISSLINE:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

**Maybe you are also interested in:**
SMISSLINE auxiliary elements and accessories p.9/28
SMISSLINE busbar systems p.9/34




FS 403 M

## FS403 M A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact (I$\Delta$n = 30 mA).

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61009**

**Icn = 6 kA, Icn =10 kA**

**B, 10 kA according to EN 61009-1**

| Poles | Sensitivity I$\Delta$n mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 10 | 143 4434 | FS403M-B6/0.03 | 2CCL564110E0065 | | 425 | 1 |
| | | 10 | 10 | 140 7612 | FS403M-B10/0.03 | 2CCL564110E0105 | | 425 | 1 |
| | | 13 | 10 | 140 7629 | FS403M-B13/0.03 | 2CCL564110E0135 | | 425 | 1 |
| | | 16 | 10 | 140 7636 | FS403M-B16/0.03 | 2CCL564110E0165 | | 425 | 1 |
| | | 20 | 10 | 144 2576 | FS403M-B20/0.03 | 2CCL563110E0205 | | 425 | 1 |
| | | 25 | 10 | 144 2590 | FS403M-B25/0.03 | 2CCL563110E0255 | | 425 | 1 |
| | | 32 | 10 | 144 2613 | FS403M-B32/0.03 | 2CCL563110E0325 | | 425 | 1 |

**C, 6 kA according to EN 61009-1**

| Poles | Sensitivity I$\Delta$n mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 6 | 141 9141 | FS403E-C6/0.03 | 2CCL564111E0064 | | 425 | 1 |
| | | 10 | 6 | 143 4489 | FS403E-C10/0.03 | 2CCL564111E0104 | | 425 | 1 |
| | | 13 | 6 | 143 4519 | FS403E-C13/0.03 | 2CCL564111E0134 | | 425 | 1 |
| | | 16 | 6 | 143 4601 | FS403E-C16/0.03 | 2CCL564111E0164 | | 425 | 1 |
| | | 20 | 6 | 140 9609 | FS403E-C20/0.03 | 2CCL564111E0203 | | 425 | 1 |
| | | 25 | 6 | 140 8770 | FS403E-C25/0.03 | 2CCL564111E0254 | | 425 | 1 |
| | | 32 | 6 | 140 8787 | FS403E-C32/0.03 | 2CCL564111E0324 | | 425 | 1 |

**C, 10 kA according to EN 61009-1**

| Poles | Sensitivity I$\Delta$n mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 10 | 141 9127 | FS403M-C6/0.03 | 2CCL564110E0064 | | 425 | 1 |
| | | 10 | 10 | 140 7674 | FS403M-C10/0.03 | 2CCL564110E0104 | | 425 | 1 |
| | | 13 | 10 | 140 7681 | FS403M-C13/0.03 | 2CCL564110E0134 | | 425 | 1 |
| | | 16 | 10 | 140 7698 | FS403M-C16/0.03 | 2CCL564110E0164 | | 425 | 1 |
| | | 20 | 10 | 144 2569 | FS403M-C20/0.03 | 2CCL563110E0204 | | 425 | 1 |
| | | 25 | 10 | 144 2583 | FS403M-C25/0.03 | 2CCL563110E0254 | | 425 | 1 |
| | | 32 | 10 | 144 2606 | FS403M-C32/0.03 | 2CCL563110E0324 | | 425 | 1 |

# SMISSLINE TP plug-in system
## RCBOs FS403 series 10000-6000 A type and short time delay Type F




FS 403 M

**C, 10 kA according to EN 61009-1**

| Poles | Sensitivity IΔn mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 100 | 6 | 10 | 142 4527 | FS403M-C6/0.1 | 2CCL564121E0064 | | 0.425 | 1 |
| | | 10 | 10 | 142 4510 | FS403M-C10/0.1 | 2CCL564121E0104 | | 0.425 | 1 |
| | | 13 | 10 | 144 2620 | FS403M-C13/0.1 | 2CCL563120E0134 | | 0.425 | 1 |
| | | 16 | 10 | 142 0109 | FS403M-C16/0.1 | 2CCL564120E0164 | | 0.425 | 1 |
| | | 20 | 10 | 144 2637 | FS403M-C20/0.1 | 2CCL563120E0204 | | 0.425 | 1 |
| | | 25 | 10 | 144 2644 | FS403M-C25/0.1 | 2CCL563120E0254 | | 0.425 | 1 |
| | | 32 | 10 | 144 2651 | FS403M-C32/0.1 | 2CCL563120E0324 | | 0.425 | 1 |

**B, 10 kA according to EN61009-1 short time delayed (APR) Type F**

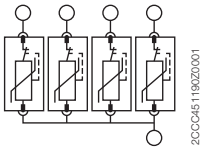
| Poles | Sensitivity IΔn mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 10 | 1470951 | FS403MK-B6/0.03 | 2CCL564310E0065 | | 0.425 | 1 |
| | | 10 | 10 | 1470999 | FS403MK-B10/0.03 | 2CCL564310E0105 | | 0.425 | 1 |
| | | 13 | 10 | 1471033 | FS403MK-B13/0.03 | 2CCL564310E0135 | | 0.425 | 1 |
| | | 16 | 10 | 1471071 | FS403MK-B16/0.03 | 2CCL564310E0165 | | 0.425 | 1 |
| | | 20 | 10 | 1470777 | FS403MK-B20/0.03 | 2CCL564310E0205 | | 0.425 | 1 |
| | | 25 | 10 | 1470814 | FS403MK-B25/0.03 | 2CCL564310E0255 | | 0.425 | 1 |
| | | 32 | 10 | 1470852 | FS403MK-B32/0.03 | 2CCL564310E0325 | | 0.425 | 1 |

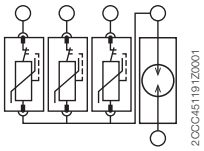
**C, 10 kA according to EN61009-1 short time delayed (APR) Type F**

| Poles | Sensitivity IΔn mA | Rated current In A | Rated breaking capacity Icn kA | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 6 | 10 | 1470937 | FS403MK-C6/0.03 | 2CCL564310E0064 | | 0.425 | 1 |
| | | 10 | 10 | 1470975 | FS403MK-C10/0.03 | 2CCL564310E0104 | | 0.425 | 1 |
| | | 13 | 10 | 1471019 | FS403MK-C13/0.03 | 2CCL564310E0134 | | 0.425 | 1 |
| | | 16 | 10 | 1471057 | FS403MK-C16/0.03 | 2CCL564310E0164 | | 0.425 | 1 |
| | | 20 | 10 | 1470753 | FS403MK-C20/0.03 | 2CCL564310E0204 | | 0.425 | 1 |
| | | 25 | 10 | 1470791 | FS403MK-C25/0.03 | 2CCL564310E0254 | | 0.425 | 1 |
| | | 32 | 10 | 1470838 | FS403MK-C32/0.03 | 2CCL564310E0324 | | 0.425 | 1 |

# SMISSLINE TP plug-in system
## Surge arrester


2CCC451245F0001


2CCC451119Z0001


2CCC451119Z0001

The type 2 surge arresters in the QuickSafe product range are suitable for protecting electrical low voltage systems and terminals in the 240/415 V system. The devices can be used as type 2 surge arresters within the scope of the lightning protection zone concept at zone transition 0B–1 and higher. The high nominal discharge capability of 20 kA makes it possible for the equipment to have a longer service life in comparison to the minimum requirements of the standard. The devices consist of a basic unit and pluggable protection modules, which can be removed extremely easily to carry out insulation measurement. They are fully compatible with SMISSLINE installation devices and the surge arresters in the ABB System pro M model series. The surge arresters are tested as type 2 arresters in accordance with the EN/IEC 61643-11 test standard.

### Mounting

**Installation and electrical connection**

The over voltage protection device “OVR” will be installed near the front of the protected consumers conditioning.
The surge arrester is to be mounted right after the Incoming block of the socket system.
The OVR404 is snapped directly onto the SMISSLINE bus bar system.

# SMISSLINE TP plug-in system
## Surge arrester

| Type | OVR404 4L 40-275 P TS QS | OVR404 3N 40-275 P TS QS |
|---|---|---|
| Technologie | varistor | Varistor/gaz tube (N) |
| System network | TNS | TT–TNS |
| **Electrical features** | | |
| Standard | IEC 61643-11/EN 61643-11 | IEC 61643-11/EN 61643-11 |
| Type / test class | Type 2 | Type 2 |
| Number of pole | 4 | 4 |
| Nominal voltage UN (L-N, L-L) | 240/415 V | 240/415 V |
| Type of voltage | a.c. 45–65 Hz | a.c. 45–65 Hz |
| Max. cont. operating voltage $U_c$ | 275 V AC | 275 V AC |
| Nominal discharge current $I_n$ (8/20) | 20 kA | 20 kA |
| Maximum discharge current $I_{max}$ (8/20) | 40 kA | 40 kA |
| Maximum impulse current $I_{imp}$ (10/350) | 2 kV | 2 kA |
| Voltage protection level $U_p$ at $I_n$ (L-N / N-PE / L-PE) | 1.5 kV | 1.25/1.4/1.5 kV |
| Voltage protection level $U_p$ at 3 kA (L-N / N-PE / L-PE) | 0.5 kV | 0.8/1.4/0.85 kV |
| Voltage protection level $U_p$ at 5 kA (L-N / N-PE / L-PE) | 0.7 kV | 0.85/1.4/0.95 kV |
| Voltage protection level $U_p$ at 10 kA (L-N / N-PE / L-PE) | 0.9 kV | 1/1.4/1.15 kV |
| TOV (Temporary overvoltage) withstand $U_t$ (L-N: 5s./N-PE: 200 ms) | 337/- V | 337/1200 V |
| Response time Response time | ≤ 25 ns | ≤ 25 ns |
| Short-circuit withstand capability Isccr | 100 kA | 100 kA |
| Back up prootection circuit breaker | ≤ 125 A; S800S B | ≤ 125 A; S800S B |
| Pluggable cartridge | Yes | Yes |
| Integrated QuickSafe® technology | Yes | Yes |
| State indicator | Yes | Yes |
| Auxiliary contact (TS) | Yes | Yes |
| **Installation** | | |
| Wire range (L, N, PE) | 2.5…25 mm² cable or rope | 2.5…25 mm² cable or rope |
| Connection cross-section | 2.5…16 mm² litz wire with ferrule | 2.5…16 mm² litz wire with ferrule |
| Tightening torque | 2.8 Nm | 2.8 Nm |
| **Auxiliary contact (TS)** | | |
| Contacts information | 1 NO – 1 NC | 1 NO – 1 NC |
| Max. load/current | 12 V DC – 10 mA | 12 V DC – 10 mA |
| Min. load/current | 250 V AC – 1 A | 250 V AC – 1 A |
| | 1.5 mm² | 1.5 mm² |
| Operating temperature | –25 °C – +60 °C | –25 °C – +60 °C |
| Stocking temperature | –25 °C – +80 °C | –25 °C – +80 °C |

## Back up protection

| Typ 2 QuickSafe® Surge Protective Devices | Prospective short circuit current at SPD location (Ip) | Circuit breaker maximum ratings 1) curve B or C | Fuse 2) (gL - gG) |
|---|---|---|---|
| Maximum ratings | | | |
| $I_n$: 5, 20, 30 kA | 0,625 kA < $I_p$ < 100 kA | S800S B or C – 125 A 2) | 125 A fuse |
| $U_c$: 275, 350, 440, 600 V | | | |

1) Maximum ratings, must be in accordance with the installation to follow coordination rules with main or upstream short circuit protection(s).

2) up to Ip ≤ 50 kA




OVR404

## Surge arrester OVR404

| Rated current<br>Isn (8/20 µs)<br>kA | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| 20 | 1455491 | OVR404 4L 40-275 P TS QS | 2CCF606000R0001 | | 0.470 | 1 |
| 20 | 1455507 | OVR404 3N 40-275 P TS QS | 2CCF606002R0001 | | 0.450 | 1 |



**Where to find more:**
Technical details of OVR 454:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

# SMISSLINE TP plug-in system
## Switch disconnector




IS404 63

### Technical data for switch disconnector IS404

| | |
|---|---|
| Rated voltage Un | 230/400 V ~ |
| Rated current In | 63 A |
| Rated frequency fn | 50 Hz |
| Number of poles | 4 |
| Rated impulse withstand voltage | 6 kV |
| Connection cross-sections Cu | At top, touch finger-proof. Suitable for connecting up single-, multi- and fine-wire conductors of up to 25 mm² |
| Degree of protection | IP40 |
| Endurance, mechanical/electrical | 5000 operating cycles |
| Mounting position | any |
| Ambient temperature | –25 °C ... +40 °C |
| Specifications | EN/IEC 60947-3 |
| Approvals | SEV |
| Weight (approx.) | 250 g |
| Switching duty | AC-22A |
| Plastic parts | halogen-free |
| Contacts | cadmium-free |

### General switch disconnector

When used in a smissline socket system, the switch disconnector can be used instead of the incoming terminal block for up to 63 A.
With the smissline IS404 switch disconnector, individual loads, groups of loads or entire system parts can be separated or connected to the input supply.

The key features of the switch disconnector
- Input supply switch
- On-Off function
- Clear indication of switching position
- Snap-on auxiliary switch available
- Uniform smissline design

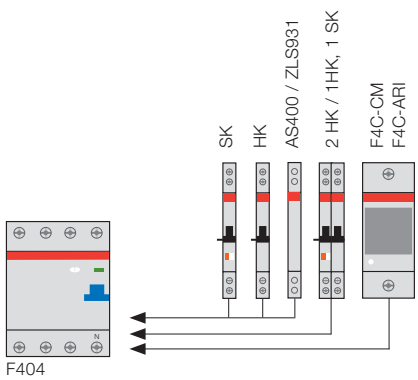


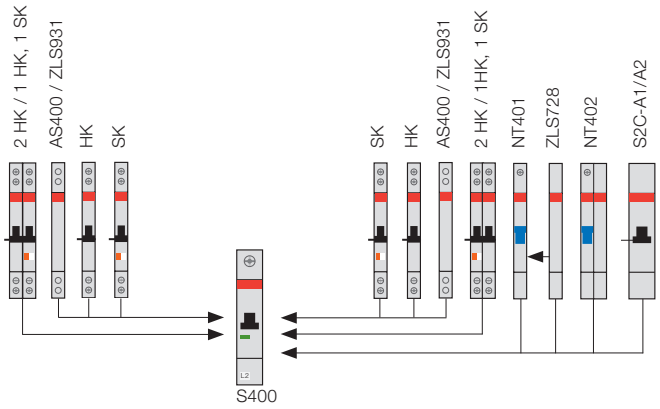

IS404 63

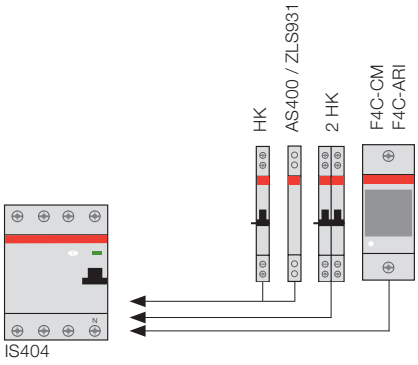
## Switch disconnector IS404

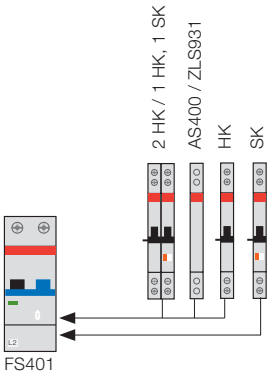
| | Rated current<br>In kA | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|
| | 63 | 0104390 | IS404 63 | 2CCF544160E0630 | | 0.380 | 1 |

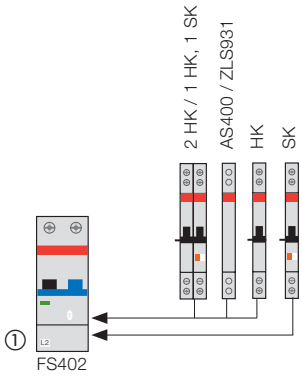
# SMISSLINE TP plug-in system
## Auxiliary elements and accessories



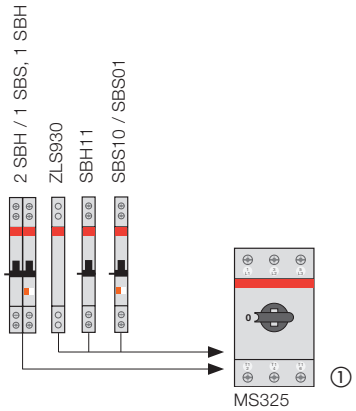



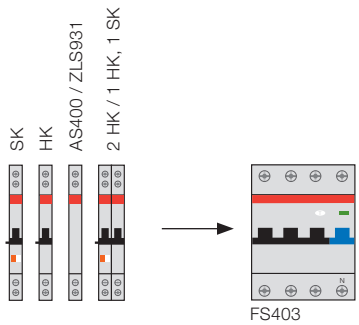





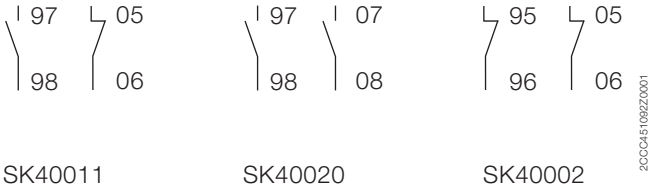

On each protective device can be mounted:

1 auxiliary switch
or 1 signal contact
or 2 auxiliary contact switches
or 1 auxiliary switch and 1 signal contact



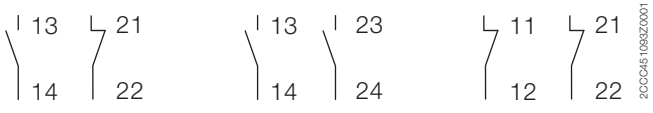




### Contact description signal contact




SK40011 SK40020 SK40002

### Contact description auxiliary switch




① If you use an auxiliary switch and a signal contact you must connect first the signal contact on the MS325

# SMISSLINE TP plug-in system
# Adapter for motor starter MS116, MS132, MS325
















## Adapter for MS116, MS132

| Designation | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| Adapter MS116/132<br>L123 wire bottom feed | 1414597 | ZMS930 | 2CCA182520R0001 | | 0.030 | 1 |
| Adapter MS116/132<br>L123LALB wire bottom feed | 1414580 | ZMS931 | 2CCA182522R0001 | | 0.062 | 1 |
| Adapter MS116/132<br>L123 wire top feed | 1414573 | ZMS932 | 2CCA182524R0001 | | 0.030 | 1 |
| Adapter MS116/132<br>L123LALB wire top feed | 1414566 | ZMS933 | 2CCA182526R0001 | | 0.062 | 1 |
| Adapter MS116/132<br>empty | 1414559 | ZMS934 | 2CCA182512R0001 | | 0.034 | 1 |
| Intermediate<br>piece 9 mm | 1414412 | ZMS935 | 2CCA182616R0001 | | 0.007 | 1 |
| Adapter MS116/132<br>L123LA wire top feed | 1424626 | ZMS937 | 2CCA182525R0001 | | 0.058 | 1 |
| Adapter MS116/132<br>L123LA wire bottom feed | 1424619 | ZMS936 | 2CCA182521R0001 | | 0.058 | 1 |




## Adapter plate for MS325 contact to busbars with plug contacts

| | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| 3L | 0021215 | ZMS915 | 2CCF002817R0001 | | 0.030 | 1 |
| L1, N(20 A) | 0021222 | ZMS916 | 2CCF002818R0001 | | 0.030 | 1 |
| L2, N(20 A) | 0021239 | ZMS917 | 2CCF002819R0001 | | 0.030 | 1 |
| L3, N(20 A) | 0021246 | ZMS918 | 2CCF002820R0001 | | 0.030 | 1 |
| 2L (reversible) | 0021253 | ZMS919 | 2CCF010620R0001 | | 0.030 | 1 |



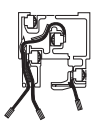

## Auxiliary switch and signal contacts, connection support

Contact pin, short

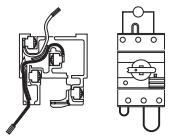



| | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| for power supply<br>via auxiliary busbars | 0019526 | | 2CCF002794R0001 | | 0.002 | 1 |

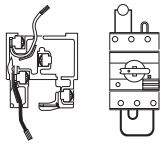
**ZMS 915** ▯ MS325 / ZLS 5.., $I_n$ max. 32 A



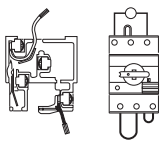
**ZMS 916** ▯ MS325, $I_n$ max. 20 A



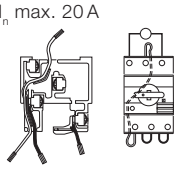
**ZMS 917** ▯ MS325, $I_n$ max. 20 A



**ZMS 918** ▯ MS325, $I_n$ max. 20 A



**ZMS 919** ▯ MS325, $I_n$ max. 20 A



# SMISSLINE TP plug-in system
## Auxiliary switch and signal contacts
## MCB S400, RCCB F404, RCCB F402, RCBO FS401

### Technical data for auxiliary switch and signal contact

| | Signal contact SK400 | Auxiliary switch HK400 |
|---|---|---|
| Rated voltage Un | 400 V | 400 V |
| Rated impulse withstand voltage | 4 kV | 4 kV |
| Rated current | | |
| – Ith | 6 A | 6 A |
| – AC15 | 2 A/230 V / 1 A/400 V | 2 A/230 V / 1 A/400 V |
| – DC13 | 0.55 A/125 V= | 0.55 A/125 V= |
| – DC13 | 0.27 A/250 V= | 0.27 A/250 V= |
| Minimum current/voltage (to ensure reliable electrical operation) | 10 mA 12 V= | 10 mA 12 V= |
| Connection cross-sections | 2 x 1.5 $mm^2$ strand with sleeve | 2 x 1.5 $mm^2$ strand with sleeve |
| Plastic parts | Free of halogen und cadmium | Free of halogen und cadmium |
| Internal resistance Ri | 0.0065 Ω | 0.0065 Ω |
| Power loss at rated current Pv | 0.24 W | 0.24 W |
| Ambient temperature | Tmax. +55 °C Tmin –25 °C | Tmax. +55 °C Tmin –25 °C |
| Tightening torque | 1 Nm | 1 Nm |




HK400..L




HK400..R

## Auxiliary switch

The auxiliary switch and signal contacts are supplied with one contacting piece. The signal contact collective alarm are supplied with two contacting pieces.

**for left side mounting on MCB S400, RCCB F402, RCBO FS401, FS403**

| | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1NO and 1NC | 0100910 | HK40011-L | 2CCS500900R0081 | | 0.045 | 10 |
| 2NO | 0111183 | HK40020-L | 2CCF201112R0001 | | 0.040 | 10 |
| 2NC | 0111190 | HK40002-L | 2CCF201114R0001 | | 0.040 | 10 |

**for right side mounting on RCCB F404, MCB S400 and IS404**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1NO and 1NC | 0108619 | HK40011-R | 2CCS500900R0214 | | 0.045 | 10 |
| 2NO | 0111206 | HK40020-R | 2CCF201113R0001 | | 0.040 | 10 |
| 2NC | 0111213 | HK40002-R | 2CCF201115R0001 | | 0.040 | 10 |

## Signal contacts

**for left side mounting on MCB S400, RCCB F402, RCBO FS401, FS403**

| | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1NO and 1NC | 0100934 | SK40011-L | 2CCS500900R0101 | | 0.045 | 10 |
| 2NO | 0111107 | SK40020-L | 2CCF201162R0001 | | 0.040 | 10 |
| 2NC | 0111114 | SK40002-L | 2CCF201164R0001 | | 0.040 | 10 |




SK400..L

**for right side mounting on RCCB F404 and MCB S400**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1NO and 1NC | 0108626 | SK40011-R | 2CCS500900R0215 | | 0.045 | 10 |
| 2NO | 0111121 | SK40020-R | 2CCF201163R0001 | | 0.040 | 10 |
| 2NC | 0111138 | SK40002-R | 2CCF201165R0001 | | 0.040 | 10 |

## Signal contact collective alarm and auxiliary contact

**for left side mounting**

| | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 1NO | 0107964 | SK40010-L SA | 2CCS500900R0141 | | 0.045 | 10 |
| 1NO | 1407902 | HK40010-L SA | 2CCF201212R0001 | | 0.045 | 10 |



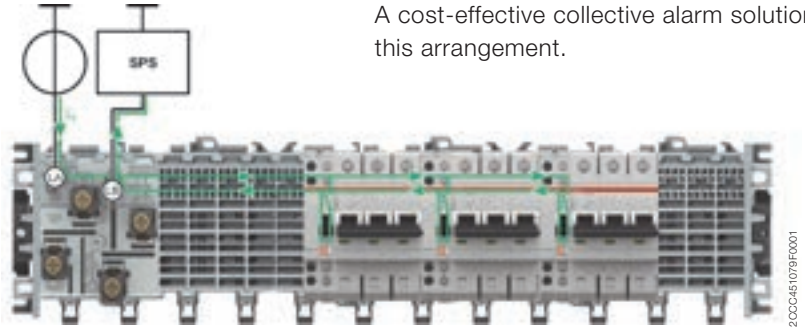

SK400..R

**for right side mounting**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1NO | 0108633 | SK40010-R SA | 2CCS500900R0216 | | 0.045 | 10 |
| 1NO | 1407919 | HK40010-R SA | 2CCF201213R0001 | | 0.045 | 10 |

## Collective alarm, signal contact contacts the auxiliary busbars LA, LB

A cost-effective collective alarm solution can be implemented without additional wiring by using this arrangement.



# SMISSLINE TP plug-in system
## Dummy, housing, Neutral disconnector, shunt trip







### Connection support dummy housing

**for left or right side mounting on MCB S400, RCCB F402, RCCB F404, RCBO FS401**

| Connection support | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 0100958 | AS400 | 2CCS500900R0151 | | 0.045 | 10 |

### Dummy housing

| | | | | | | |
|---|---|---|---|---|---|---|
| Compensation to 18 mm | 0100965 | ZLS931 | 2CCS500900R0161 | | 0.035 | 10 |







### Contacting pieces for auxiliary switch and signal contacts

| Connection support | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Contacting piece for HK/SK LA, LB Pack contains 100 items | 0100972 | ZLS632 | 2CCS500900R0171 | | 0.200 | Pack contains 100 items |
| Contacting piece for HK/SK LA, LB Pack contains 10 items | 0109265 | ZLS635 | 2CC5201307R0171 | | 0.020 | Pack contains 10 items |
| Contact Pin | 0108640 | ZLS633 | 2CCS500900R0201 | | | Pack contains 10 items |









### Neutral disconnector

**On the load side terminal two separate conductors can be clamped**

| Connection support | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Neutral disconnector 9 mm | 0100859 | NT401 63 | 2CCS500900R0021 | | 0.045 | 10 |
| Neutral disconnector 18 mm | 0100842 | NT402 63 | 2CCS500900R0011 | | 0.058 | 10 |
| Compensation to 18 mm for NT401 63 | 0104710 | ZLS728 | 2CCS400900R0101 | | 0.015 | 1 Bag contains 5 items |




S2C-A

### Shunt trip

Function: remote opening of the device when a voltage is applied.
Suitable for MCBs S400 series.

| Rated voltage | Bbn 801254 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 12–60 V AC/DC | 2570992 | S 2C-A1 | 2CDS200909R0001 | | 0.150 | 1 |
| 110–415 V AC/DC, 110–250 V DC | 2571005 | S 2C-A2 | 2CDS200908R0002 | | 0.150 | 1 |

Orders for this two types can be done over DESTO

# SMISSLINE TP plug-in system
# F4C-CM motor operating and F4C-ARI auto-reclosing devices




F4C-CM

## Motor operating devices for residual current circuit breakers F404 25 ... 63 A

**Supply voltage 12 ... 30 V AC; 12 ... 48 V DC**

**1 integrated auxiliary contact**

| | Bbn 801254 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 2998730 | F4C-CM | 2CSF204986R0013 | | 0.166 | 1 |

For Supply voltage 230 V it is needed to use a safety transformer TS16/12 (2CSM161401R401R0811).

## Motor operating auto-reclosing unit for residual current circuit breakers F404 25 ... 63 A

**Supply voltage 12 ... 30 V AC; 12 ... 48 V DC**

**1 integrated auxiliary contact**

| | Bbn 801254 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 2998631 | F4C-ARI | 2CSF204987R0013 | | 0.166 | 1 |

For Supply voltage 230 V it is needed to use a safety transformer TS16/12 (2CSM161401R401R0811).

## Safety transformer

| | Bbn 801254 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 2368908 | TS16/12 | 2CSM161401R0811 | | 0.355 | 1 |



**Where to find more:**
Technical details of F4C CM:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

# SMISSLINE TP plug-in system
# Busbar system data according to EN/IEC 61439-6

## Busbar system touch proof:
## Use only for wall mounted application (horizontal or vertical)

| | |
|---|---|
| Number of poles: | max. 6 to 110<br>3p+N / 2 additional bars PE+N |
| Rated operational voltage (Ue): | 690 VAC, 1000 VDC<br>(400 VAC, 250 VDC when use for load-free snapped devices under power) |
| Rated insulation voltage (Ui): | 690 VAC, 1000 VDC |
| Rated impulse withstand voltage (Uimp): | 8 kV |
| Rated current: | Max. 100 A (side feeding), max. 125 A (max. 35 °C Ambient air temperature for 125 A continuously)<br>Max. 200 A (center feeding)<br>Max. 250 A (max. 35 °C Ambient air temperature for 250 A continuously) |
| Rated short-time withstand current (Icw): | 10 kA/300 ms<br>10 kA/50 ms for auxiliary circuit |
| Rated peak withstand current (Ipk): | 35kA Main circuit<br>6kA Auxiliary circuit |
| Rated fused short-circuit current (Icf): | 50 kA, 690 VAC |
| Rated peak fused short-circuit current (Ipk): | 105 kA, 690 VAC |
| SCPD: | S800 High performance MCB<br>160 A gG DIN 00 with 50 mm² feeder unit<br>200 A gG DIN 1 with 95 mm² feeder unit<br>40 A gG DIN 00 with 10 mm² feeder unit<br>40 A gG DIN 00 for auxiliary circuit (La+Lb) |
| Rated conditional short-circuit current (Icc): | 50kA:<br>Incoming current of busbars L123N 200A: Fuse NH3 gG/200A ABB Tmax 250A<br>Incoming current of busbars L123N 160A: Fuse NH2 gG/160a ABB Tmax 250A<br>Incoming current of busbars L123N 63AA: Fuse NH1 gG/63A ABB S803S in combination with S803S-SCL63-R<br>Incoming current of busbars Auxilary 40A: Fuse NH3 gG/40A ABB S803S in combination with S803S-SCL63-R |
| Rated peak short-circuit current (Ipk): | 68.25 kApk, 400 VAC |
| Back-up: circuit breaker SACE Tmax 250 A | high performance circuit breaker S800, circuit breaker SACE Tmax 250 A |
| Protection degree: | IP20B |
| Rated frequency: | 50/60 Hz |
| Ambient air temperature: | max. 55 °C |
| Size of CU bars 3P+N+PE: | 3 x 10 mm (30 mm²) |
| Size of CU auxiliary bars La Lb: | 2 x 5 mm (10 mm²) |

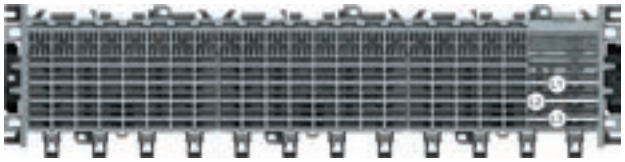
| | Maximum rated voltage | Maximum rated current | Borne principale |
|---|---|---|---|
| Incoming terminal block ZLS224/225/228/229 | 690 VAC 1000 VDC | 160 A LLLN, 40 A LA, LB | 6 mm²–50 mm², 2 x 25 mm² LLLN, 10 mm² LA, LB |
| Incoming terminal block ZLS250–253 | 690 VAC 1000 VDC | 200 A | 10 mm²–95 mm² max. 1 wire |
| Incoming terminal block ZLS260–262 | 690 VAC 1000 VDC | 63 A LLLN, 6 A LA, LB | 2 mm²–25 mm² LLLN, LA, LB max. 1 wire |
| Busbar ZLS200 | 690 VAC 1000 VDC | 100 A | |
| Busbar ZLS202 | 690 VAC 600 VDC | 40 A | |
| Universal adapters 32 A | 690 VAC 600 VDC | 32 A LLN | |
| Universal adapters 63 A | 690 VAC 600 VDC | 63 A LLN | |
| Combi module | 690 VAC 600 VDC | 32 A LLN 6A LA, LB | |

The SMISSLINE system and components are tested for vibration according to IEC 60068-2-6 (2–13.2 Hz/1 mm displacement, 13.2–100 Hz/0.7 g) and for Miniature circuit breakers (5 g, 20 frequency cycles 5 …150 … 5 Hz at 0.8 rated current)
Governing standard: IEC 60068-2-6
Environmental testing – Part 2–6: Test Fc. Vibration (sinusoidal)

## Technical data according c UL us

| | Busbar | Incoming terminal block ZLS224, 224R, 225, 225R | Incoming terminal component ZLS250, 251, 252, 253 | Universal adapter 30 A | Universal adapter 60 A | Combi module |
|---|---|---|---|---|---|---|
| Maximum rated voltage: | | 600 VAC | 600 VAC | 600 VAC | 600 VAC | |
| Maximum rated current: | 100 A | 150 A | 200 A | 30 A | 60 A | 30 A |
| Rated current for supply, left or right: | 100 A | 100 A | 100 A | – | – | – |
| Rated current for supply, center: | 100 A | 150 A | 200 A | – | – | – |
| Resistance to Short circuits: | | | 50 kA | with 200 A back-up fuse | | |
| Supply cable size: | | 14 to 0, 1/0 AWG | 8 to 3/0 AWG | – | – | – |

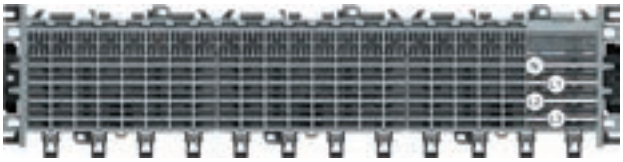
# SMISSLINE TP plug-in system
## Starter pack Touch proof 3L




### Starter Pack 3L: L1, L2, L3 inclusive socket end piece

| Solutions available | Busbars length incl. Socket end piece | Busbars length | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | EAN | Type code | Order code | | kg | pc. |
| 18 PLE 3L | 364 | 320 | 1426514 | ZLS905E18-3L | 2CCA183232R0001 | | 0.530 | 1 |
| 20 PLE 3L | 401 | 357 | 1413231 | ZLS905E20-3L | 2CCA183100R0001 | | 0.637 | 1 |
| 22 PLE 3L | 437 | 393 | 1413255 | ZLS905E22-3L | 2CCA183102R0001 | | 0.693 | 1 |
| 24 PLE 3L | 473 | 429 | 1413279 | ZLS905E24-3L | 2CCA183104R0001 | | 0.749 | 1 |
| 26 PLE 3L | 509 | 465 | 1413293 | ZLS905E26-3L | 2CCA183106R0001 | | 0.813 | 1 |
| 28 PLE 3L | 545 | 501 | 1413415 | ZLS905E28-3L | 2CCA183108R0001 | | 0.848 | 1 |
| 30 PLE 3L | 581 | 537 | 1413439 | ZLS905E30-3L | 2CCA183110R0001 | | 0.933 | 1 |
| 32 PLE 3L | 617 | 573 | 1413453 | ZLS905E32-3L | 2CCA183112R0001 | | 0.981 | 1 |
| 34 PLE 3L | 653 | 609 | 1413477 | ZLS905E34-3L | 2CCA183114R0001 | | 1.044 | 1 |
| 36 PLE 3L | 689 | 645 | 1413491 | ZLS905E36-3L | 2CCA183116R0001 | | 1.100 | 1 |
| 38 PLE 3L | 725 | 681 | 1413514 | ZLS905E38-3L | 2CCA183118R0001 | | 1.156 | 1 |
| 40 PLE 3L | 761 | 717 | 1413538 | ZLS905E40-3L | 2CCA183120R0001 | | 1.212 | 1 |
| 42 PLE 3L | 797 | 753 | 1413552 | ZLS905E42-3L | 2CCA183122R0001 | | 1.276 | 1 |
| 44 PLE 3L | 833 | 789 | 1413576 | ZLS905E44-3L | 2CCA183124R0001 | | 1.332 | 1 |
| 46 PLE 3L | 869 | 825 | 1413590 | ZLS905E46-3L | 2CCA183126R0001 | | 1.388 | 1 |
| 48 PLE 3L | 905 | 861 | 1413613 | ZLS905E48-3L | 2CCA183128R0001 | | 1.444 | 1 |
| 50 PLE 3L | 941 | 897 | 1413637 | ZLS905E50-3L | 2CCA183130R0001 | | 1.508 | 1 |
| 52 PLE 3L | 977 | 933 | 1413651 | ZLS905E52-3L | 2CCA183132R0001 | | 1.564 | 1 |
| 54 PLE 3L | 1013 | 969 | 1413675 | ZLS905E54-3L | 2CCA183134R0001 | | 1.620 | 1 |
| 56 PLE 3L | 1049 | 1005 | 1413699 | ZLS905E56-3L | 2CCA183136R0001 | | 1.675 | 1 |
| 58 PLE 3L | 1058 | 1041 | 1413712 | ZLS905E58-3L | 2CCA183138R0001 | | 1.739 | 1 |
| 60 PLE 3L | 1122 | 1078 | 1413736 | ZLS905E60-3L | 2CCA183140R0001 | | 1.795 | 1 |
| 62 PLE 3L | 1158 | 1114 | 1413750 | ZLS905E62-3L | 2CCA183142R0001 | | 1.851 | 1 |
| 64 PLE 3L | 1194 | 1150 | 1413774 | ZLS905E64-3L | 2CCA183144R0001 | | 1.907 | 1 |
| 66 PLE 3L | 1230 | 1186 | 1413798 | ZLS905E66-3L | 2CCA183146R0001 | | 1.971 | 1 |
| 68 PLE 3L | 1266 | 1222 | 1413811 | ZLS905E68-3L | 2CCA183148R0001 | | 2.027 | 1 |
| 70 PLE 3L | 1302 | 1258 | 1413835 | ZLS905E70-3L | 2CCA183150R0001 | | 2.083 | 1 |
| 72 PLE 3L | 1338 | 1294 | 1413859 | ZLS905E72-3L | 2CCA183152R0001 | | 2.139 | 1 |
| 74 PLE 3L | 1374 | 1330 | 1413873 | ZLS905E74-3L | 2CCA183154R0001 | | 2.203 | 1 |
| 76 PLE 3L | 1410 | 1366 | 1413897 | ZLS905E76-3L | 2CCA183156R0001 | | 2.269 | 1 |
| 78 PLE 3L | 1446 | 1402 | 1413910 | ZLS905E78-3L | 2CCA183158R0001 | | 2.314 | 1 |
| 80 PLE 3L | 1482 | 1438 | 1413934 | ZLS905E80-3L | 2CCA183160R0001 | | 2.370 | 1 |

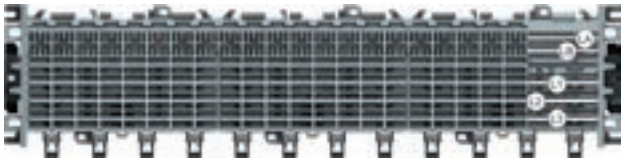
# SMISSLINE TP plug-in system
## Starter pack Touch proof 3LN




### Starter Pack 3LN: L1, L2, L3, N inclusive socket end piece

| Solutions available | Busbars length incl. Socket end piece | Busbars length | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | EAN | Type code | Order code | | kg | pc. |
| 18 PLE 3LN | 364 | 320 | 1426521 | ZLS905E18-3LN | 2CCA183234R0001 | | 0.615 | 1 |
| 20 PLE 3LN | 401 | 357 | 1413248 | ZLS905E20-3LN | 2CCA183101R0001 | | 0.724 | 1 |
| 22 PLE 3LN | 437 | 393 | 1413262 | ZLS905E22-3LN | 2CCA183103R0001 | | 0.789 | 1 |
| 24 PLE 3LN | 473 | 429 | 1413286 | ZLS905E24-3LN | 2CCA183105R0001 | | 0.800 | 1 |
| 26 PLE 3LN | 509 | 465 | 1413408 | ZLS905E26-3LN | 2CCA183107R0001 | | 0.926 | 1 |
| 28 PLE 3LN | 545 | 501 | 1413422 | ZLS905E28-3LN | 2CCA183109R0001 | | 0.970 | 1 |
| 30 PLE 3LN | 581 | 537 | 1413446 | ZLS905E30-3LN | 2CCA183111R0001 | | 1.046 | 1 |
| 32 PLE 3LN | 617 | 573 | 1413460 | ZLS905E32-3LN | 2CCA183113R0001 | | 1.120 | 1 |
| 34 PLE 3LN | 653 | 609 | 1413484 | ZLS905E34-3LN | 2CCA183115R0001 | | 1.193 | 1 |
| 36 PLE 3LN | 689 | 645 | 1413507 | ZLS905E36-3LN | 2CCA183117R0001 | | 1.2.57 | 1 |
| 38 PLE 3LN | 725 | 681 | 1413521 | ZLS905E38-3LN | 2CCA183119R0001 | | 1.322 | 1 |
| 40 PLE 3LN | 761 | 717 | 1413545 | ZLS905E40-3LN | 2CCA183121R0001 | | 1.387 | 1 |
| 42 PLE 3LN | 797 | 753 | 1413569 | ZLS905E42-3LN | 2CCA183123R0001 | | 1.459 | 1 |
| 44 PLE 3LN | 833 | 789 | 1413583 | ZLS905E44-3LN | 2CCA183125R0001 | | 1.524 | 1 |
| 46 PLE 3LN | 869 | 825 | 1413606 | ZLS905E46-3LN | 2CCA183127R0001 | | 1.589 | 1 |
| 48 PLE 3LN | 905 | 861 | 1413620 | ZLS905E48-3LN | 2CCA183129R0001 | | 1.653 | 1 |
| 50 PLE 3LN | 941 | 897 | 1413644 | ZLS905E50-3LN | 2CCA183131R0001 | | 1.726 | 1 |
| 52 PLE 3LN | 977 | 933 | 1413668 | ZLS905E52-3LN | 2CCA183133R0001 | | 1.791 | 1 |
| 54 PLE 3LN | 1013 | 969 | 1413682 | ZLS905E54-3LN | 2CCA183135R0001 | | 1.855 | 1 |
| 56 PLE 3LN | 1049 | 1005 | 1413705 | ZLS905E56-3LN | 2CCA183137R0001 | | 1.920 | 1 |
| 58 PLE 3LN | 1058 | 1041 | 1413729 | ZLS905E58-3LN | 2CCA183139R0001 | | 1.992 | 1 |
| 60 PLE 3LN | 1122 | 1078 | 1413743 | ZLS905E60-3LN | 2CCA183141R0001 | | 2.057 | 1 |
| 62 PLE 3LN | 1158 | 1114 | 1413767 | ZLS905E62-3LN | 2CCA183143R0001 | | 2.122 | 1 |
| 64 PLE 3LN | 1194 | 1150 | 1413781 | ZLS905E64-3LN | 2CCA183145R0001 | | 2.186 | 1 |
| 66 PLE 3LN | 1230 | 1186 | 1413804 | ZLS905E66-3LN | 2CCA183147R0001 | | 2.259 | 1 |
| 68 PLE 3LN | 1266 | 1222 | 1413828 | ZLS905E68-3LN | 2CCA183149R0001 | | 2.324 | 1 |
| 70 PLE 3LN | 1302 | 1258 | 1413842 | ZLS905E70-3LN | 2CCA183151R0001 | | 2.388 | 1 |
| 72 PLE 3LN | 1338 | 1294 | 1413866 | ZLS905E72-3LN | 2CCA183153R0001 | | 2.453 | 1 |
| 74 PLE 3LN | 1374 | 1330 | 1413880 | ZLS905E74-3LN | 2CCA183155R0001 | | 2.526 | 1 |
| 76 PLE 3LN | 1410 | 1366 | 1413903 | ZLS905E76-3LN | 2CCA183157R0001 | | 2.590 | 1 |
| 78 PLE 3LN | 1446 | 1402 | 1413927 | ZLS905E78-3LN | 2CCA183159R0001 | | 2.655 | 1 |
| 80 PLE 3LN | 1482 | 1438 | 1413941 | ZLS905E80-3LN | 2CCA183161R0001 | | 2.719 | 1 |

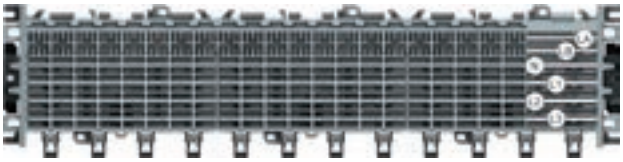
# SMISSLINE TP plug-in system
## Starter pack Touch proof 3L LA LB




### Starter Pack 3LLALB: L1, L2, L3, LA, LB inclusive socket end piece

| Solutions available | Busbars length incl. Socket end piece | Busbars length | Bbn 761227 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | EAN | Type code | Order code | | kg | pc. |
| 18 PLE 3L LA LB | 364 | 320 | 1426538 | ZLS905E18-3LLALB | 2CCA183233R0001 | | 0.586 | 1 |
| 20 PLE 3L LA LB | 401 | 357 | 1416904 | ZLS905E20-3LLALB | 2CCA183162R0001 | | 0.753 | 1 |
| 22 PLE 3L LA LB | 437 | 393 | 1416911 | ZLS905E22-3LLALB | 2CCA183164R0001 | | 0.821 | 1 |
| 24PLE 3L LA LB | 473 | 429 | 1416928 | ZLS905E24-3LLALB | 2CCA183166R0001 | | 0.835 | 1 |
| 26PLE 3L LA LB | 509 | 465 | 1416935 | ZLS905E26-3LLALB | 2CCA183168R0001 | | 0.964 | 1 |
| 28PLE 3L LA LB | 545 | 501 | 1416942 | ZLS905E28-3LLALB | 2CCA183170R0001 | | 1.011 | 1 |
| 30PLE 3L LA LB | 581 | 537 | 1416959 | ZLS905E30-3LLALB | 2CCA183172R0001 | | 1.107 | 1 |
| 32PLE 3L LA LB | 617 | 573 | 1416966 | ZLS905E32-3LLALB | 2CCA183174R0001 | | 1.167 | 1 |
| 34PLE 3L LA LB | 653 | 609 | 1416973 | ZLS905E34-3LLALB | 2CCA183176R0001 | | 1.242 | 1 |
| 36PLE 3L LA LB | 689 | 645 | 1416980 | ZLS905E36-3LLALB | 2CCA183178R0001 | | 1.310 | 1 |
| 38PLE 3L LA LB | 725 | 681 | 1416997 | ZLS905E38-3LLALB | 2CCA183180R0001 | | 1.377 | 1 |
| 40PLE 3L LA LB | 761 | 717 | 1417000 | ZLS905E40-3LLALB | 2CCA183182R0001 | | 1.445 | 1 |
| 42PLE 3L LA LB | 797 | 753 | 1417017 | ZLS905E42-3LLALB | 2CCA183184R0001 | | 1.520 | 1 |
| 44PLE 3L LA LB | 833 | 789 | 1417024 | ZLS905E44-3LLALB | 2CCA183186R0001 | | 1.588 | 1 |
| 46PLE 3L LA LB | 869 | 825 | 1417031 | ZLS905E46-3LLALB | 2CCA183188R0001 | | 1.656 | 1 |
| 48PLE 3L LA LB | 905 | 861 | 1417048 | ZLS905E48-3LLALB | 2CCA183190R0001 | | 1.723 | 1 |
| 50PLE 3L LA LB | 941 | 897 | 1417055 | ZLS905E50-3LLALB | 2CCA183192R0001 | | 1.799 | 1 |
| 52PLE 3L LA LB | 977 | 933 | 1417062 | ZLS905E52-3LLALB | 2CCA183194R0001 | | 1.866 | 1 |
| 54PLE 3L LA LB | 1013 | 969 | 1417079 | ZLS905E54-3LLALB | 2CCA183196R0001 | | 1.934 | 1 |
| 56PLE 3L LA LB | 1049 | 1005 | 1417086 | ZLS905E56-3LLALB | 2CCA183198R0001 | | 2.001 | 1 |
| 58PLE 3L LA LB | 1058 | 1041 | 1417093 | ZLS905E58-3LLALB | 2CCA183200R0001 | | 2.077 | 1 |
| 60PLE 3L LA LB | 1122 | 1078 | 1417109 | ZLS905E60-3LLALB | 2CCA183202R0001 | | 2.144 | 1 |
| 62PLE 3L LA LB | 1158 | 1114 | 1417116 | ZLS905E62-3LLALB | 2CCA183204R0001 | | 2.212 | 1 |
| 64PLE 3L LA LB | 1194 | 1150 | 1417123 | ZLS905E64-3LLALB | 2CCA183206R0001 | | 2.279 | 1 |
| 66PLE 3L LA LB | 1230 | 1186 | 1417130 | ZLS905E66-3LLALB | 2CCA183208R0001 | | 2.355 | 1 |
| 68PLE 3L LA LB | 1266 | 1222 | 1417147 | ZLS905E68-3LLALB | 2CCA183210R0001 | | 2.423 | 1 |
| 70 PLE 3L LA LB | 1302 | 1258 | 1417154 | ZLS905E70-3LLALB | 2CCA183212R0001 | | 2.490 | 1 |
| 72PLE 3L LA LB | 1338 | 1294 | 1417161 | ZLS905E72-3LLALB | 2CCA183214R0001 | | 2.558 | 1 |
| 74PLE 3L LA LB | 1374 | 1330 | 1417178 | ZLS905E74-3LLALB | 2CCA183216R0001 | | 2.633 | 1 |
| 76PLE 3L LA LB | 1410 | 1366 | 1417185 | ZLS905E76-3LLALB | 2CCA183218R0001 | | 2.701 | 1 |
| 78PLE 3L LA LB | 1446 | 1402 | 1417192 | ZLS905E78-3LLALB | 2CCA183220R0001 | | 2.768 | 1 |
| 80PLE 3L LA LB | 1482 | 1438 | 1417208 | ZLS905E80-3LLALB | 2CCA183222R0001 | | 2.836 | 1 |

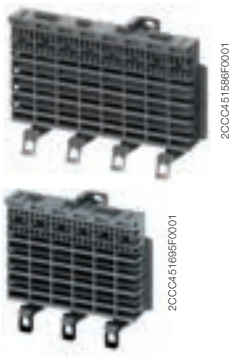
# SMISSLINE TP plug-in system
## Starter pack Touch proof 3LN LA LB




### Starter Pack 3LNLALB: L1, L2, L3, N, LA, LB inclusive socket end piece

| Solutions available | Busbars length incl. Socket end piece mm | Busbars length mm | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|---|
| 18 PLE 3LN LA LB | 364 | 320 | 1426545 | ZLS905E18-3LNLALB | 2CCA183235R0001 | | 0.671 | 1 |
| 20 PLE 3LN LA LB | 401 | 357 | 1417215 | ZLS905E20-3LNLALB | 2CCA183163R0001 | | 0.841 | 1 |
| 22 PLE 3LN LA LB | 437 | 393 | 1417222 | ZLS905E22-3LNLALB | 2CCA183165R0001 | | 0.917 | 1 |
| 24PLE 3LN LA LB | 473 | 429 | 1417239 | ZLS905E24-3LNLALB | 2CCA183167R0001 | | 0.939 | 1 |
| 26PLE 3LN LA LB | 509 | 465 | 1417246 | ZLS905E26-3LNLALB | 2CCA183169R0001 | | 1.078 | 1 |
| 28PLE 3LN LA LB | 545 | 501 | 1417253 | ZLS905E28-3LNLALB | 2CCA183171R0001 | | 1.133 | 1 |
| 30PLE 3LN LA LB | 581 | 537 | 1417260 | ZLS905E30-3LNLALB | 2CCA183173R0001 | | 1.238 | 1 |
| 32PLE 3LN LA LB | 617 | 573 | 1417277 | ZLS905E32-3LNLALB | 2CCA183175R0001 | | 1.306 | 1 |
| 34PLE 3LN LA LB | 653 | 609 | 1417284 | ZLS905E34-3LNLALB | 2CCA183177R0001 | | 1.391 | 1 |
| 36PLE 3LN LA LB | 689 | 645 | 1417291 | ZLS905E36-3LNLALB | 2CCA183179R0001 | | 1.467 | 1 |
| 38PLE 3LN LA LB | 725 | 681 | 1417307 | ZLS905E38-3LNLALB | 2CCA183181R0001 | | 1.543 | 1 |
| 40PLE 3LN LA LB | 761 | 717 | 1417314 | ZLS905E40-3LNLALB | 2CCA183183R0001 | | 1.619 | 1 |
| 42PLE 3LN LA LB | 797 | 753 | 1417321 | ZLS905E42-3LNLALB | 2CCA183185R0001 | | 1.704 | 1 |
| 44PLE 3LN LA LB | 833 | 789 | 1417338 | ZLS905E44-3LNLALB | 2CCA183187R0001 | | 1.780 | 1 |
| 46PLE 3LN LA LB | 869 | 825 | 1417345 | ZLS905E46-3LNLALB | 2CCA183189R0001 | | 1.856 | 1 |
| 48PLE 3LN LA LB | 905 | 861 | 1417352 | ZLS905E48-3LNLALB | 2CCA183191R0001 | | 1.933 | 1 |
| 50PLE 3LN LA LB | 941 | 897 | 1417369 | ZLS905E50-3LNLALB | 2CCA183193R0001 | | 2.017 | 1 |
| 52PLE 3LN LA LB | 977 | 933 | 1417376 | ZLS905E52-3LNLALB | 2CCA183195R0001 | | 2.093 | 1 |
| 54PLE 3LN LA LB | 1013 | 969 | 1417383 | ZLS905E54-3LNLALB | 2CCA183197R0001 | | 2.169 | 1 |
| 56PLE 3LN LA LB | 1049 | 1005 | 1417390 | ZLS905E56-3LNLALB | 2CCA183199R0001 | | 2.246 | 1 |
| 58PLE 3LN LA LB | 1058 | 1041 | 1417406 | ZLS905E58-3LNLALB | 2CCA183201R0001 | | 2.330 | 1 |
| 60PLE 3LN LA LB | 1122 | 1078 | 1417413 | ZLS905E60-3LNLALB | 2CCA183203R0001 | | 2.406 | 1 |
| 62PLE 3LN LA LB | 1158 | 1114 | 1417505 | ZLS905E62-3LNLALB | 2CCA183205R0001 | | 2.482 | 1 |
| 64PLE 3LN LA LB | 1194 | 1150 | 1419172 | ZLS905E64-3LNLALB | 2CCA183207R0001 | | 2.559 | 1 |
| 66PLE 3LN LA LB | 1230 | 1186 | 1417420 | ZLS905E66-3LNLALB | 2CCA183209R0001 | | 2.643 | 1 |
| 68PLE 3LN LA LB | 1266 | 1222 | 1417437 | ZLS905E68-3LNLALB | 2CCA183211R0001 | | 2.719 | 1 |
| 70 PLE 3LN LA LB | 1302 | 1258 | 1417444 | ZLS905E70-3LNLALB | 2CCA183213R0001 | | 2.796 | 1 |
| 72PLE 3LN LA LB | 1338 | 1294 | 1417451 | ZLS905E72-3LNLALB | 2CCA183215R0001 | | 2.872 | 1 |
| 74PLE 3LN LA LB | 1374 | 1330 | 1417468 | ZLS905E74-3LNLALB | 2CCA183217R0001 | | 2.956 | 1 |
| 76PLE 3LN LA LB | 1410 | 1366 | 1417475 | ZLS905E76-3LNLALB | 2CCA183219R0001 | | 3.032 | 1 |
| 78PLE 3LN LA LB | 1446 | 1402 | 1417482 | ZLS905E78-3LNLALB | 2CCA183221R0001 | | 3.109 | 1 |
| 80PLE 3LN LA LB | 1482 | 1438 | 1417499 | ZLS905E80-3LNLALB | 2CCA183223R0001 | | 3.185 | 1 |

# SMISSLINE TP plug-in system
## Socket




ZLS90

### Socket bases ZLS906, ZLS908

The SMISSLINE socket system is a totally new kind of assembly and connection technology for the construction of distributions. Besides the classic method of snapping the devices onto 35-mm mounting rails, the new family of devices can be directly attached to the socket bases with integrated busbars. The time-consuming process of connecting up the supply is thereby no longer needed. In addition, in the event of rearrangement or expansion, the replacement of devices in existing systems is made significantly easier.

The socket sections and the wide range of accessories make it possible to plan with the capability for expansion and to construct distribution systems of any desired size in a short period of time.

6- and 8-module sockets are installed either by screwing them onto any flat surface or by snapping them onto a 35 mm DIN mounting rail. Lateral movement or detachment of the sockets again is possible before final fixing.

In order to determine the required socket length, the space necessary for

– the devices required
– the incoming terminal block and
– any reserve spaces needed must be determined.

### Snap mounting

Pull down the slide with a screwdriver until it latches (socket can be moved).
Press on front of slid:
Fixed position
(Sockets fixed)

### The key features

– System of any desired length (even number of poles)
– Integrated busbars
– Simple device change
– Long-term planning and problem free extension possible
– Significant time savings during assembly and connection

### Socket base

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 8-module socket<br>Length 144 mm<br>(includes base and cover) | 1413965 | ZLS908 | 2CCA183030R0001 | | 0.092 | 10 |
| 6-module socket<br>Length 108 mm<br>(includes base and cover) | 1413958 | ZLS906 | 2CCA183035R0001 | | 0.071 | 10 |

**Where to find more:**
Technical details of socket:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

# SMISSLINE TP plug-in system
## Busbars, Socket end piece




ZLS20

### Busbars for the sockets and additional socket ZLS200

The busbars of size 10 x 3 mm can be loaded with currents up to 100 A. They are plated for perfect contact wiith the devices plug-in contacts. The maximum available busbar length is 1979 mm. The same busbar type is used, regardless whether it is fitted in the socket (L1, L2, L3, N) or in the additional socket (N, PE). The busbars are inserted in to the socket from the front.

### Auxiliary busbars for the socket ZLS202

The 5 x 2 mm auxiliary busbars are intended for a common power supply of auxiliary switches and signal contacts. They are also plated and their max. delivery length is 1979 mm.
Like the main busbars, the auxiliary busbars are inserted in holders LA and LB from the front. Of course, only on auxiliary busbar can be fitted.

### Busbars for the sockets

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 100 A busbar plated, 10 x 3 mm, for L1, L2, L3, N and PE – Delivery length 1979 mm | 0015702 | ZLS200 | 2CCF002772R0001 | | 0.640 | 10 |
| 40 A auxiliary busbar plated, 5 x 2 mm, for LA und LB – Delivery length 1979 mm | 0015719 | ZLS202 | 2CCF002773R0001 | | 0.240 | 10 |

9




ZLS920

### Socket end piece ZLS920

To prevent displacement of sockets and busbars (particulary when installed vertically) end pieces can be fitted at the start and finish of each row of sockets. These simultaneously ensure electrically protected covering of the busbar end faces and mechanical fixing of the sockets oh the mounting rail.

### Socket end piece

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| To prevent displacement of sockets and busbars | 1415617 | ZLS920 | 2CCA183017R0001 | | | 1 |

**Where to find more:**
Technical details of socket:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

# SMISSLINE TP plug-in system
## Incoming terminal block and components


2CCC451406F0001

ZLS26


2CCC451041100F001

ZLS25


2CCC451057F0002


2CCC451058100F001

ZLS95

### Incoming terminal blocks ZLS260 to 262

Compact terminal block with the construction width of 18 mm for 2 poles. The maximum rated current is 63 A for L1, L2, L3N and 6 A for LA, LB.

### Incoming terminal block 18 mm, 63 A 2,5 mm² to 25 mm² max. 1 wire

**1 contact above 1 contact bottom**

| Version | Bbn 761227 / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece / kg | Pack unit / pc. |
|---|---|---|---|---|---|---|
| L1, L3 63 A | 0111572 | ZLS260 | 2CCA205305R0001 | | 0.090 | 1 |
| L2, N 63 A | 0111589 | ZLS261 | 2CCA205306R0001 | | 0.090 | 1 |
| LA, LB 6 A | 0111596 | ZLS262 | 2CCA205307R0001 | | 0.090 | 1 |

### Incoming terminal component ZLS250-253; 954, 955

The incoming terminal component, with an installation width of 36 mm is available as a single-pole component for the line conductors L1, L2, L3 and as neutral. The terminals act directly on the busbars and thereby fix the incoming terminal component. The incoming terminal component, L1, L2, L3 and N can be combined to meet specific needs. A maximum cable cross-section of 95 mm² can be connected to the incoming terminal component.

### Incoming terminal component 10 mm² to 95 mm² max. 1 wire

| Version | Bbn 761227 / EAN | Order details: Type code | Order details: Order code | Price 1 piece | Weight 1 piece / kg | Pack unit / pc. |
|---|---|---|---|---|---|---|
| Feeder component L1 | 0505319 | ZLS251 | 2CCV672501R0001 | | 0.120 | 1 |
| Feeder component L2 | 0505326 | ZLS252 | 2CCV672502R0001 | | 0.120 | 1 |
| Feeder component L3 | 0505333 | ZLS253 | 2CCV672503R0001 | | 0.120 | 1 |
| Feeder component N | 0505340 | ZLS250 | 2CCV672500R0001 | | 0.120 | 1 |
| Feeder component N additional socket | 1424404 | ZLS954 | 2CCV672508R0001 | | 0.100 | 1 |
| Feeder component PE additional socket | 1424411 | ZLS955 | 2CCV672509R0001 | | 0.100 | 1 |



**Where to find more:**
Technical details of terminal block:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

# SMISSLINE TP plug-in system
## Incoming terminal block and components







### General

The incoming terminal block is used to connect cables directly to the busbars. The terminals act directly on the busbars and therefore fix the incoming terminal block. Removable terminal tops permit the connection of continous conductrors (risers) white horizontal or vertical cable entry is also possible.
Instead of using the incoming terminal block, the power supply can also be realized via a device (e.g. residual current operated circuit breaker, miniature circuit breaker or switch disconnector).

**Power supply left or right, maximum 100 A.**







**Power supply in centre, maximum 160 A.**

**A maximum of 100 A is permitted on either side. A total of 160 A must not be exceeded.**




### Incoming terminal blocks ZLS224, 225

A standard incoming terminal block whose cover provides protection against accidental contact. Construction height 50 mm. The base plate can be fitted with a maximum of 4 main terminals L1, L2, L3 and N for the busbars, and 2 auxiliary termiinals LA and LB for the auxiliary busbars.

**Where to find more:**
Technical details of terminal block:
Chapter 9 of
Solutions for electrical distribution in buildings - technical details

## Incoming terminal blocks 6 mm² to 50 mm² (2 x 25 mm²) + 2 x 10 mm² (LA, LB)

**Standard incoming terminal block,** complete with main terminals and cover, construction height 50 mm

| Version | Bbn 761227<br>EAN | Order details<br>Type code | <br>Order code | Price<br>1 piece | Weight<br>1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| 50 mm² (2 x 25 mm²)<br>3LN left | 0019816 | ZLS224 | 2CCF015196R0001 | | 0.180 | 1 |
| 50 mm² (2 x 25 mm²)<br>3LN right | 0510726 | ZLS224R | 2CCA180152R0001 | | 0.180 | 1 |
| 50 mm² (2 x 25 mm²) + 2 x 10 mm²<br>3LNAB (auxiliary busbars) | 0054251 | ZLS224LAB | 2CCA180154R0001 | | 0.200 | 1 |
| 50 mm² (2 x 25 mm²)<br>3L left | 0019823 | ZLS225 | 2CCF015197R0001 | | 0.150 | 1 |
| 50 mm² (2 x 25 mm²)<br>3L right | 0510733 | ZLS225R | 2CCA180153R0001 | | 0.150 | 1 |
| 50 mm² (2 x 25 mm²) + 2 x 10 mm²<br>3LAB (auxiliary busbars) | 0054220 | ZLS225LAB | 2CCA180155R0001 | | 0.170 | 1 |

right



left

### Cover for standard incoming terminal block

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0021543 | ZLS235 | 2CCA180069R0001 | | 0.037 | 1 |

### Additional parts for standard incoming terminal block

| | | | | | | |
|---|---|---|---|---|---|---|
| Auxiliary terminal max. 2 items 10 mm² (for auxiliary bus bars LA, LB) | 0019151 | ZLS233 | 2CCF002786R0001 | | 0.010 | 2 |
| N terminal for incoming terminal block | 0019144 | ZLS232 | 2CCF002785R0001 | | 0.030 | |

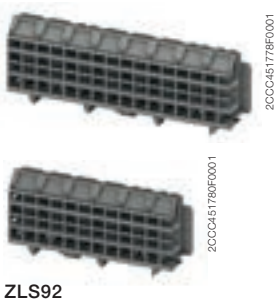
## Incoming terminal blocks, low ZLS228, 229

Incoming terminal block with construction height of 36 mm.

### Incoming terminal block, low, complete with main terminals, construction height 36 mm

| | | | | | | |
|---|---|---|---|---|---|---|
| 50 mm² (2 x 25 mm²), 3LN | 0019854 | ZLS228 | 2CCF015200R0001 | | 0.180 | 1 |
| 50 mm² (2 x 25 mm²), 3L | 0019861 | ZLS229 | 2CCF015201R0001 | | 0.150 | 1 |
| 50 mm² (2 x 25 mm²), 3LN right | 1465254 | ZLS228R | 2CCF180157R0001 | | 0.180 | 1 |
| 50 mm² (2 x 25 mm²), 3L right | 1465261 | ZLS229R | 2CCF180158R0001 | | 0.150 | 1 |

# SMISSLINE TP plug-in system
## Terminals for additional socket




ZLS92

### Additional socket

The additional socket can easily be fitted onto the socket base to accomodate the external N and/or PE busbars. This enables neutral connections to be made where single-pole miniature circuit breakers are used with unswitched neutral. Neutral terminals are clipped onto the additional socket and can be used as detachable neutral connections. One N busbar and/or one PE busbar can be fitted. Each socket base can be equipped with an additional socket. Because it contains an integrated 35 mm DIN-rail snap-on feature, the external N or PE busbars can be fitted anywhere in the distribution panel, even separatly from the system.
The additional sockets can be covered to prevent accidental contact with live parts.

### Additional socket for external N and PE busbars

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| – 8-module socket (suitable for 8-module socket) | 1420444 | ZLS928 | 2CCA183630R0001 | | 0.034 | 10 |
| – 6-module socket (suitable for 6-module socket) | 1420437 | ZLS926 | 2CCA183635R0001 | | 0.026 | 10 |

# SMISSLINE TP plug-in system
## Terminals TP, additional socket

### N terminals and PE terminals

Corresponding N terminals (blue) or PE terminals (yellow-green) are available for the power supply and the outgoing conduetors of the external N and PE busbars for cross sections. The terminals are fitted with label holders whitch can be used wiht the marking adapter or the self-adhesive marking label (Phoenix Contact type Clipline UC-TM):

### Connection for the terminals

| | |
|---|---|
| ZLS912, 915 | 0,75 mm² up to 10 mm² litz wire with ferrule<br>1 mm² up to 10 mm² strand<br>2 x 1,5 mm² or 2 x 2,5 mm² allowed,<br>all other combinatins it is only allowed with one wire |
| ZLS913, 916 | 16 mm² up to 35 mm² wire with ferrule, max. 1 wire |
| ZLS954, 955 | 50 mm² up to 95 mm² wire with ferrule, max. 1 wire |






#### N terminal for additional socket light blue, for external busbars

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| N 10 mm² | 1421090 | ZLS912 | 2CCA183460R0001 | | 0.012 | 10 |
| N 35 mm² | 1421304 | ZLS913 | 2CCA183470R0001 | | 0.030 | 10 |
| N 95 mm² | 1424404 | ZLS954 | 2CCV672508R0001 | | 0.100 | 1 |






#### PE terminal for additional socket yellow-green, for external busbars

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| PE 10 mm² | 1421311 | ZLS915 | 2CCA183461R0001 | | 0.012 | 10 |
| PE 35 mm² | 1421328 | ZLS916 | 2CCA183471R0001 | | 0.030 | 10 |
| PE 95 mm² | 1424411 | ZLS955 | 2CCV672509R0001 | | 0.100 | 1 |






#### Red/orange terminals for additional socket

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 10 mm² | 1421335 | ZLS912/ Red | 2CCA183475R0001 | | 0.012 | 10 |
| 10 mm² | 1421359 | ZLS915/ Orange | 2CCA183476R0001 | | 0.012 | 10 |
| 35 mm² | 1421342 | ZLS913/ Red | 2CCA183465R0001 | | 0.030 | 10 |
| 35 mm² | 1421366 | ZLS916/ Orange | 2CCA183466R0001 | | 0.030 | 10 |






### Insulator block

The dark grey insulator block isolates the interrupted bus bar ends from one another and simultaneously marks the disconnection point externally.




| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| | 1421373 | ZLS917 | 2CCA183463R0001 | | 0.006 | 10 |

# SMISSLINE TP plug-in system
## Socket accessories




### Intermediate piece ZLS725

The light grey intermediate piece matches the device profile and fills empty module spaces. The busbars are safely covered, so that they cannot be touched and at the same time the corresponding openings in the cover are closed up.




### Intermediate piece

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| light grey, fills shock-proof empty module spaces 18 mm – bag containing 5 items | 0100989 | ZLS725 | 2CCS500900R0181 | | 0.100 | 1 |
| Compensation piece to 18 mm for NT 9 mm – bag containing 5 items | 0104710 | ZLS728 | 2CCS400900R0101 | | 0.070 | 1 |

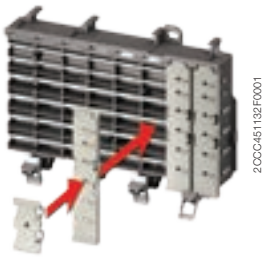
### Busbar insulator ZLS938

The dark grey busbar insulator electrically isolates the separated busbar ends from each other (e.g. when using several RCD protected groups) and also identifies the isolation point from outside. It conforms with the device profile and its space requirement is 1 module.




### Busbar insulator

| | | | | | | |
|---|---|---|---|---|---|---|
| dark grey, for isolation and spacing of separate busbar sections, 18 mm | 1418205 | ZLS938 | 2CCA205611R0001 | | 0.001 | 1 |




### Busbar cover ZLS100

If component modules or spare modules are not requiered, the busbar cover ensures electrically protected covering of the main and auxiliary busbars. The cover (4 modules) can be divided anywhere. The openings allow voltage measurements on the busbars without removing the cover.

### Busbar cover

| | | | | | | |
|---|---|---|---|---|---|---|
| electrically protected covering of main and auxiliary busbars. The 4 modules cover can be divided. Suitable to accept extension adapter ZLS 101 4 x 18 mm – bag containing 5 items | 0015603 | ZLS100 | 2CCF002762R0001 | | 0.095 | 1 |

### Extension adapter ZLS101

The extension adapter, single or several side by side, can be plugged into the busbar cover via the built-in holding device. This enables conventional DIN devices with 45 mm cap size to be snapped onto the SMISSLINE socket. By plugging in several extension adapters one on top of the other, heights can be adjusted in multiples of 7 mm

### Add-on adapter

| | | | | | | |
|---|---|---|---|---|---|---|
| 18 mm wide, can be plugged on busbar cover ZLS100. To mount conventional DIN devices with 45 mm cap size. – bag containing 10 items | 0015610 | ZLS101 | 2CCF002763R0001 | | 0.002 | 10 |

# SMISSLINE TP plug-in system
## Combi module 32 A ($I_N$), 6 A ($I_A$, $I_B$)
## MS116/132 + AF contactor



### Combi module for MS116/MS132 and AF contactor

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Combi module L1,L2,L3 top feed | 1414641 | ZMS132-3L | 2CCA182500R0001 | | 0.095 | 1 |
| Combi module L1,L2,L3 top feed | 1414634 | ZMS132-3LA | 2CCA182502R0001 | | 0.098 | 1 |
| Combi module L1,L2,L3 top feed | 1414627 | ZMS132-3LB | 2CCA182504R0001 | | 0.098 | 1 |
| Combi module L1,L2,L3 top feed | 1414610 | ZMS132-3LAB | 2CCA182506R0001 | | 0.102 | 1 |
| Combi module without plug-in contacts | 1414603 | ZMS137 | 2CCA182508R0001 | | 0.075 | 1 |
| Connection pin to mont 2 combi moduls together | 1414801 | E210-SPV | 2CCC703715R0001 | | | Set à 30 |
| Intermediate piece 9 mm | 1414412 | ZMS935 | 2CCA182616R0001 | | 0.006 | 1 |







Top feed Bottom feed

### Adapter for manual motor starter MS116 and MS132

| Description/ application | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| Adapter MS116/132 L123 wire bottom feed | 1414597 | ZMS930 | 2CCA182520R0001 | | 0.030 | 1 |
| Adapter MS116/132 L123LALB wire bottom feed | 1414580 | ZMS931 | 2CCA182522R0001 | | 0.062 | 1 |
| Adapter MS116/132 L123 wire top feed | 1414573 | ZMS932 | 2CCA182524R0001 | | 0.030 | 1 |
| Adapter MS116/132 L123LALB wire top feed | 1414566 | ZMS933 | 2CCA182526R0001 | | 0.062 | 1 |
| Adapter MS116/132 empty | 1414559 | ZMS934 | 2CCA182512R0001 | | 0.034 | 1 |
| Intermediate piece 9 mm | 1414412 | ZMS935 | 2CCA182616R0001 | | 0.006 | 1 |
| Adapter MS116/132 L123LA wire bottom feed | 1424619 | ZMS936 | 2CCA182521R0001 | | 0.058 | 1 |
| Adapter MS116/132 L123LA wire top feed | 1424626 | ZMS937 | 2CCA182525R0001 | | 0.058 | 1 |

The 9 mm wide additional housing is need to use when an unequal number (1, 3, 5, …) of combi modules or adapter are plugged on the socket. This is needed to fill the space into a full module (18 mm).
The 9 mm wide additional housing can be also use when on one side of the manual motor starter an auxiliary contact is mounted.
The order codes of manual motor starter and the contactors auf in the ABB catalogue DOC 1SBC100155C0202 or in the local ABB catalogue.

# SMISSLINE TP plug-in system
# Universal adapters 32 A and 63 A







## 32 A and 63 A universal adapters

### Adapter 32A

| Designation | Module | Bbn 761227 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 wire top | 1 | 144 4563 | ZLS970 | 2CCA180551R0001 | | 0.020 | 1 |
| L1/L2/L3 wire bottom ZLS971 | 1 | 144 4570 | ZLS971 | 2CCA180552R0001 | | 0.020 | 1 |
| N wire top ZLS970N | 1 | 144 4587 | ZLS970N | 2CCA180553R0001 | | 0.020 | 1 |
| N wire bottom ZLS971N | 1 | 144 4570 | ZLS971N | 2CCA180554R0001 | | 0.020 | 1 |

### Adapter 63A

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 wire top ZLS972 | 1 | 144 4709 | ZLS972 | 2CCA180555R0001 | | 0.024 | 1 |
| L1/L2/L3 wire bottom ZLS973 | 1 | 144 4716 | ZLS973 | 2CCA180556R0001 | | 0.024 | 1 |
| N wire top ZLS972N | 1 | 144 4808 | ZLS972N | 2CCA180557R0001 | | 0.024 | 1 |
| N wire bottom ZLS973N | 1 | 144 4730 | ZLS973N | 2CCA180558R0001 | | 0.024 | 1 |

### Adapter 32A with 300mm wire

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 wire top ZLS970 | 1 | 144 4747 | ZLS970300 | 2CCA180559R0001 | | 0.026 | 1 |
| L1/L2/L3 wire bottom ZLS971 | 1 | 144 4754 | ZLS971300 | 2CCA180560R0001 | | 0.026 | 1 |
| N wire top ZLS970N | 1 | 144 4761 | ZLS970N300 | 2CCA180561R0001 | | 0.026 | 1 |
| N wire bottom ZLS971N | 1 | 144 4778 | ZLS971N300 | 2CCA180562R0001 | | 0.026 | 1 |

### Adapter 63A with 300mm wire

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 Litze o ZLS972 | 1 | 144 4785 | ZLS972300 | 2CCA180563R0001 | | 0.037 | 1 |
| L1/L2/L3 Litze u ZLS973 | 1 | 144 4792 | ZLS973300 | 2CCA180564R0001 | | 0.037 | 1 |
| N wire top ZLS972N | 1 | 144 4808 | ZLS972N300 | 2CCA180565R0001 | | 0.037 | 1 |
| N wire bottom ZLS973N | 1 | 144 4815 | ZLS973N300 | 2CCA180566R0001 | | 0.037 | 1 |

### Adapter 25A UL489, adapter can be only used together with ABB Pro M MCB S200 UL489

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 Litze o. ZLS970 UL | 1 | 144 4822 | ZLS970UL | 2CCA337020R0001 | | 0.021 | 1 |
| L1/L2/L3 Litze u. ZLS971 UL | 1 | 144 4839 | ZLS971UL | 2CCA337021R0001 | | 0.021 | 1 |

### Adapter 45A UL489, adapter can be only used together with ABB Pro M MCB S200 UL489

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L1/L2/L3 Litze o. ZLS972 UL | 1 | 144 4860 | ZLS972UL | 2CCA337024R0001 | | 0.025 | 1 |
| L1/L2/L3 Litze u. ZLS973 UL | 1 | 144 4877 | ZLS973UL | 2CCA337025R0001 | | 0.025 | 1 |

### Dummy housing

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 144 4556 | ZLS964 | 2CCA180550R0001 | | 0.011 | 1 |

### Connector for multi- pole adapter

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bag with 30 pcs. 10 | | 1414801 | E210-SPV | 2CCC703715R0001 | | 0.050 | Set of 30 pcs. |

# SMISSLINE TP plug-in system
## Locking device



SA

### Locking device

| | | | | | | |
|---|---|---|---|---|---|---|
| Padlock adapter 3 mm<br>– Bag containing 10 items | 0104833 | SA 1 | GJF1101903R0001 | | 0.023 | 1 |
| Padlock | 0104857 | SA 2 | GJF1101903R0002 | | 0.020 | 1 |

# SMISSLINE TP plug-in system
## Busbars 40 A and 100 A

### 40 A and 100 A busbars / selection table for sockets

| Bbn 761227 EAN | Order details busbar 100 A Type code | Order code | Price 1 piece | ZLS908 | ZLS906 | Module | Length incl. end piece | Busbar length mm | Bbn 761227 EAN | Order details busbar 40 A Type code | Order code | Price 1 piece |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 006778 | ZLS201E6 | 2CCF800158R0001 | | – | 1 | 6 | 148 | 103 | 007966 | ZLS203E6 | 2CCF800218R0001 | |
| 006983 | ZLS201E8 | 2CCF800159R0001 | | 1 | – | 8 | 186 | 139 | 008178 | ZLS203E8 | 2CCF800219R0001 | |
| 006211 | ZLS201E12 | 2CCF800160R0001 | | – | 2 | 12 | 256 | 211 | 007409 | ZLS203E12 | 2CCF800220R0001 | |
| 006310 | ZLS201E14 | 2CCF800161R0001 | | 1 | 1 | 14 | 292 | 247 | 007508 | ZLS203E14 | 2CCF800221R0001 | |
| 006334 | ZLS201E16 | 2CCF800162R0001 | | 2 | – | 16 | 328 | 283 | 007522 | ZLS203E16 | 2CCF800222R0001 | |
| 006358 | ZLS201E18 | 2CCF800163R0001 | | – | 3 | 18 | 364 | 319 | 007546 | ZLS203E18 | 2CCF800223R0001 | |
| 006372 | ZLS201E20 | 2CCF800164R0001 | | 1 | 2 | 20 | 401 | 355 | 007560 | ZLS203E20 | 2CCF800224R0001 | |
| 006396 | ZLS201E22 | 2CCF800165R0001 | | 2 | 1 | 22 | 437 | 391 | 007584 | ZLS203E22 | 2CCF800225R0001 | |
| 006419 | ZLS201E24 | 2CCF800166R0001 | | 3 | – | 24 | 473 | 427 | 007607 | ZLS203E24 | 2CCF800226R0001 | |
| 006433 | ZLS201E26 | 2CCF800167R0001 | | 1 | 3 | 26 | 509 | 463 | 007621 | ZLS203E26 | 2CCF800227R0001 | |
| 006457 | ZLS201E28 | 2CCF800168R0001 | | 2 | 2 | 28 | 545 | 499 | 007645 | ZLS203E28 | 2CCF800228R0001 | |
| 006471 | ZLS201E30 | 2CCF800169R0001 | | 3 | 1 | 30 | 581 | 535 | 007669 | ZLS203E30 | 2CCF800229R0001 | |
| 006495 | ZLS201E32 | 2CCF800170R0001 | | 4 | – | 32 | 617 | 571 | 007683 | ZLS203E32 | 2CCF800230R0001 | |
| 006518 | ZLS201E34 | 2CCF800171R0001 | | 2 | 3 | 34 | 653 | 607 | 007706 | ZLS203E34 | 2CCF800231R0001 | |
| 006532 | ZLS201E36 | 2CCF800172R0001 | | 3 | 2 | 36 | 689 | 643 | 007720 | ZLS203E36 | 2CCF800232R0001 | |
| 006556 | ZLS201E38 | 2CCF800173R0001 | | 4 | 1 | 38 | 725 | 679 | 007744 | ZLS203E38 | 2CCF800233R0001 | |
| 006570 | ZLS201E40 | 2CCF800174R0001 | | 5 | – | 40 | 761 | 715 | 007768 | ZLS203E40 | 2CCF800234R0001 | |
| 006594 | ZLS201E42 | 2CCF800175R0001 | | 3 | 3 | 42 | 797 | 751 | 007782 | ZLS203E42 | 2CCF800235R0001 | |
| 006617 | ZLS201E44 | 2CCF800176R0001 | | 4 | 2 | 44 | 833 | 787 | 007805 | ZLS203E44 | 2CCF800236R0001 | |
| 006631 | ZLS201E46 | 2CCF800177R0001 | | 5 | 1 | 46 | 869 | 823 | 007829 | ZLS203E46 | 2CCF800237R0001 | |
| 006655 | ZLS201E48 | 2CCF800178R0001 | | 6 | – | 48 | 905 | 859 | 007843 | ZLS203E48 | 2CCF800238R0001 | |
| 006679 | ZLS201E50 | 2CCF800179R0001 | | 4 | 3 | 50 | 941 | 895 | 007867 | ZLS203E50 | 2CCF800239R0001 | |
| 006693 | ZLS201E52 | 2CCF800180R0001 | | 5 | 2 | 52 | 977 | 932 | 007881 | ZLS203E52 | 2CCF800240R0001 | |
| 006716 | ZLS201E54 | 2CCF800181R0001 | | 6 | 1 | 54 | 1013 | 968 | 007904 | ZLS203E54 | 2CCF800241R0001 | |
| 006730 | ZLS201E56 | 2CCF800182R0001 | | 7 | – | 56 | 1049 | 1004 | 007928 | ZLS203E56 | 2CCF800242R0001 | |
| 006754 | ZLS201E58 | 2CCF800183R0001 | | 5 | 3 | 58 | 1085 | 1040 | 007942 | ZLS203E58 | 2CCF800243R0001 | |
| 006785 | ZLS201E60 | 2CCF800184R0001 | | 6 | 2 | 60 | 1122 | 1076 | 007973 | ZLS203E60 | 2CCF800244R0001 | |
| 006808 | ZLS201E62 | 2CCF800185R0001 | | 7 | 1 | 62 | 1158 | 1112 | 007997 | ZLS203E62 | 2CCF800245R0001 | |
| 006822 | ZLS201E64 | 2CCF800186R0001 | | 8 | – | 64 | 1194 | 1148 | 008017 | ZLS203E64 | 2CCF800246R0001 | |
| 006846 | ZLS201E66 | 2CCF800187R0001 | | 6 | 3 | 66 | 1230 | 1184 | 008031 | ZLS203E66 | 2CCF800247R0001 | |
| 006860 | ZLS201E68 | 2CCF800188R0001 | | 7 | 2 | 68 | 1266 | 1220 | 008055 | ZLS203E68 | 2CCF800248R0001 | |
| 006884 | ZLS201E70 | 2CCF800189R0001 | | 8 | 1 | 70 | 1302 | 1256 | 008079 | ZLS203E70 | 2CCF800249R0001 | |
| 006907 | ZLS201E72 | 2CCF800190R0001 | | 9 | – | 72 | 1338 | 1292 | 008093 | ZLS203E72 | 2CCF800250R0001 | |
| 006921 | ZLS201E74 | 2CCF800191R0001 | | 7 | 3 | 74 | 1374 | 1328 | 008116 | ZLS203E74 | 2CCF800251R0001 | |
| 006945 | ZLS201E76 | 2CCF800192R0001 | | 8 | 2 | 76 | 1410 | 1364 | 008130 | ZLS203E76 | 2CCF800252R0001 | |
| 006969 | ZLS201E78 | 2CCF800193R0001 | | 9 | 1 | 78 | 1446 | 1400 | 008154 | ZLS203E78 | 2CCF800253R0001 | |
| 006990 | ZLS201E80 | 2CCF800194R0001 | | 10 | – | 80 | 1482 | 1436 | 008185 | ZLS203E80 | 2CCF800254R0001 | |
| 007010 | ZLS201E82 | 2CCF800195R0001 | | 8 | 3 | 82 | 1518 | 1472 | 008208 | ZLS203E82 | 2CCF800255R0001 | |
| 007034 | ZLS201E84 | 2CCF800196R0001 | | 9 | 2 | 84 | 1554 | 1508 | 008222 | ZLS203E84 | 2CCF800256R0001 | |
| 007058 | ZLS201E86 | 2CCF800197R0001 | | 10 | 1 | 86 | 1590 | 1544 | 008246 | ZLS203E86 | 2CCF800257R0001 | |
| 007072 | ZLS201E88 | 2CCF800198R0001 | | 11 | – | 88 | 1626 | 1580 | 008260 | ZLS203E88 | 2CCF800258R0001 | |
| 007096 | ZLS201E90 | 2CCF800199R0001 | | 9 | 3 | 90 | 1662 | 1616 | 008284 | ZLS203E90 | 2CCF800259R0001 | |
| 007119 | ZLS201E92 | 2CCF800200R0001 | | 10 | 2 | 92 | 1698 | 1652 | 008307 | ZLS203E92 | 2CCF800260R0001 | |
| 007133 | ZLS201E94 | 2CCF800201R0001 | | 11 | 1 | 94 | 1734 | 1688 | 008321 | ZLS203E94 | 2CCF800261R0001 | |
| 007157 | ZLS201E96 | 2CCF800202R0001 | | 12 | – | 96 | 1770 | 1724 | 008345 | ZLS203E96 | 2CCF800262R0001 | |
| 007171 | ZLS201E98 | 2CCF800203R0001 | | 10 | 3 | 98 | 1806 | 1760 | 008369 | ZLS203E98 | 2CCF800263R0001 | |
| 006006 | ZLS201E100 | 2CCF800204R0001 | | 11 | 2 | 100 | 1843 | 1796 | 007195 | ZLS203E100 | 2CCF800264R0001 | |
| 006020 | ZLS201E102 | 2CCF800205R0001 | | 12 | 1 | 102 | 1879 | 1832 | 007218 | ZLS203E102 | 2CCF800265R0001 | |
| 006044 | ZLS201E104 | 2CCF800206R0001 | | 13 | – | 104 | 1915 | 1868 | 007232 | ZLS203E104 | 2CCF800266R0001 | |
| 006068 | ZLS201E106 | 2CCF800207R0001 | | 11 | 3 | 106 | 1951 | 1904 | 007256 | ZLS203E106 | 2CCF800267R0001 | |
| 006082 | ZLS201E108 | 2CCF800208R0001 | | 12 | 2 | 108 | 1987 | 1940 | 007270 | ZLS203E108 | 2CCF800268R0001 | |

Planning for the incorporation of feeder block and spare places should be taken into account.
The total lengths given above were calculated taking socket spacings and tolerances into account.
For this reason, the indicated busbar length is not necessarily a multiple of 18 mm (1 Module).

# SMISSLINE TP plug-in system
## View of the CombiLine modules

**Horizontal modules** are suitable for mounting on WR or EDF profiles. Minimum cabinet depth 215 mm.
The WR or EDF mounting frames must be ordered separately.

**Vertical modules** are suitable for mounting in cabinets with a minimum depth of 275 mm. The mounting frame must be ordered separately. Cable laying grid is included for cable fixing. With DIN rail for PE/N disconnection terminals.



**Sectional view from above, example MC203HS**



**Sectional view from above, example MC203VS**

**Front view**





**Front view**





# SMISSLINE TP plug-in system
## View of the combination sets

**Horizontal combination** sets are already mounted to EDF profiles (the same arrangement as a distribution board panel). Suitable for mounting in cabinets with a minimum depth of 215 mm.

**Vertical combination** sets are already mounted to EDF profiles. Suitable for mounting in cabinets with a minimum depth of 215 mm. A cable laying grid is included for cable fixing. Without DIN rail for PE/N disconnection terminals.



Sectional view from above,
example ED203HS



Sectional view from above
example ED203VS

Front view





Front view





# SMISSLINE TP plug-in system
## Options for assembly in an enclosure

**With horizontal device arrangement** in conjunction with mounting adapters, it is possible to assemble the DIN rail further back. The busbar systems cannot be connected through from one panel to the next. The DIN rail is mounted to a 2-level bracket (in front upon delivery). The front position is for mounting the socket base to which the SMISSLINE TP devices will directly be mounted. The back position is for mounting the socket bases for devices with universal adapters.

**With vertical device arrangement** in conjunction with mounting adapters, the standard cover holders have to be replaced by the cover holders ED137P4 with the spacer ED135P4. A cover raising frame is also required, so that there is more space under the cover. Devices using mounting adapters must always be mounted under a separate cover in this way. Modules for a vertical device arrangement have cable laying grids for fastening the cables. The DIN rails are designed to be equipped with the SMISSLINE TP socket base rows; it is also possible to connect the SMISSLINE TP additional sockets (N/PE terminals).



Horizontal device arrangement



Vertical device arrangement



**Important:** We recommend that you plan at least a 150 mm high terminal or wiring space on the cable entry side.

> For cover raising frames, see page 9/61

# SMISSLINE TP plug-in system
## For horizontal and vertical device arrangement



MC203HS



MC303HS

- SMISSLINE TP modules for horizontal device arrangement
- Extension with DIN rails 35 x 15 mm
- Distance between DIN rails 150 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- Important: The SMISSLINE TP busbar system cannot be connected through from one module to the next.
- Planning aid for SMISSLINE TP socket bases
- The mounting frame must be ordered separately

| Height | | Width | | Stecksockellänge | | | From cabinet depth | FLATPACK Unmounted | | | MOUNTED Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RE | mm | FB | mm | PLE | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 2 | 500 | 2 x 22 | ■ | ■ | 215 | MBC202HS | 2CPX042155R9999 | | MC202HS | 2CPX042132R9999 | |
| | 300 | 3 | 750 | 2 x 36 | ■ | ■ | 215 | MBC302HS | 2CPX042156R9999 | | MC302HS | 2CPX042133R9999 | |
| 3 | 450 | 2 | 500 | 3 x 22 | ■ | ■ | 215 | MBC203HS | 2CPX042157R9999 | | MC203HS | 2CPX042134R9999 | |
| | 450 | 3 | 750 | 3 x 36 | ■ | ■ | 215 | MBC303HS | 2CPX042158R9999 | | MC303HS | 2CPX042135R9999 | |
| 4 | 600 | 2 | 500 | 4 x 22 | ■ | ■ | 215 | MBC204HS | 2CPX042159R9999 | | MC204HS | 2CPX042136R9999 | |
| | 600 | 3 | 750 | 4 x 36 | ■ | ■ | 215 | MBC304HS | 2CPX042160R9999 | | MC304HS | 2CPX042137R9999 | |
| 5 | 750 | 2 | 500 | 5 x 22 | ■ | ■ | 215 | MBC205HS | 2CPX042161R9999 | | MC205HS | 2CPX042138R9999 | |
| | 750 | 3 | 750 | 5 x 36 | ■ | ■ | 215 | MBC305HS | 2CPX042162R9999 | | MC305HS | 2CPX042139R9999 | |

9



MC103VS



MC203VS



MC305VS

- SMISSLINE TP modules for vertical device arrangement
- Extension with DIN rails 35 x 15 mm
- The DIN rails in the back are designed for standard N (N disconnection terminals) and PE terminals
- A cable laying grid is included for cable fixing
- The DIN rails and cable laying grids are flush with the module
- Important: Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails
- Planning aid for SMISSLINE TP socket bases
- The mounting frame must be ordered separately

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 450 | 1 | 250 | 1 x 22 | | ■ | 275 | MBC103VS | 2CPX042163R9999 | | MC103VS | 2CPX042140R9999 | |
| | 450 | 2 | 500 | 2 x 22 | | ■ | 275 | MBC203VS | 2CPX042164R9999 | | MC203VS | 2CPX042141R9999 | |
| 4 | 600 | 1 | 250 | 1 x 30 | | ■ | 275 | MBC104VS | 2CPX042165R9999 | | MC104VS | 2CPX042142R9999 | |
| | 600 | 2 | 500 | 2 x 30 | | ■ | 275 | MBC204VS | 2CPX042166R9999 | | MC204VS | 2CPX042143R9999 | |
| 5 | 750 | 1 | 250 | 1 x 38 | | ■ | 275 | MBC105VS | 2CPX042167R9999 | | MC105VS | 2CPX042144R9999 | |
| | 750 | 2 | 500 | 2 x 38 | | ■ | 275 | MBC205VS | 2CPX042168R9999 | | MC205VS | 2CPX042145R9999 | |
| | 750 | 3 | 750 | 2 x 38 | | ■ | 275 | MBC305VS | 2CPX042911R9999 | | MC305VS | 2CPX042910R9999 | |

*1 Module for EDF mounting frame *2 Module for WR mounting frame

# SMISSLINE TP plug-in system
## Options for assembly in an enclosure

**With horizontal device arrangement** in conjunction with mounting adapters, it is possible to assemble the DIN rail further back. The busbar systems cannot be connected through from one panel to the next. The DIN rail is mounted to a 2-level bracket (in front upon delivery). The front position is for mounting the socket base to which the SMISSLINE TP devices will directly be mounted. The back position is for mounting the socket bases for devices with universal adapters.

**With vertical device arrangement** in conjunction with mounting adapters, the standard cover holders have to be replaced by the cover holders ED137P4 with the spacer ED135P4. A cover raising frame is also required, so that there is more space under the cover. Devices using mounting adapters must always be mounted under a separate cover in this way. Modules for a vertical device arrangement have cable laying grids for fastening the cables. The DIN rails are designed to be equipped with the SMISSLINE TP socket base rows; it is also possible to connect the SMISSLINE TP additional sockets (N/PE terminals).

Combination set
+
ED 30P2
Panel connector
+
Combination set



**To join combination sets with one another, one set of panel connectors ED30P2 is required per joint.**



Horizontal device arrangement



Vertical device arrangemen



**Important:** We recommend that you plan at least a 150 mm high terminal or wiring space on the cable entry side.

> For cover raising frames, see page 9/61

# SMISSLINE TP plug-in system
## For horizontal and vertical device arrangement



ED2SHV



ED3SHV

- Touch guard for horizontal combination sets or panel combinations to be installed on top of each other
- The EDF profile rails are included in the scope of delivery

| Height | | Width | | Socket base length | | | From cabinet depth | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| RE | mm | FB | mm | PLE | EDF*1 | WR*2 | mm | Type | Ord. no. | Price |
| 1 | 150 | 2 | 500 | | ■ | | 215 | ED2SHV | 2CPX061630R9999 | |
| | 150 | 3 | 750 | | ■ | | 215 | ED3SHV | 2CPX061635R9999 | |



ED203HS



ED303HS

- SMISSLINE TP combination sets for horizontal device arrangement
- Extension with DIN rails 35 x 15 mm
- Distance between DIN rails 150 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- Important: The SMISSLINE TP socket base rows cannot be connected through from one module to the next.
- Planning aid for SMISSLINE TP socket base rows, see page 9/64
- The EDF profile rails are included in the scope of delivery

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 450 | 2 | 500 | 3 x 22 | ■ | | 215 | ED203HS | 2CPX066517R9999 | |
| | 450 | 3 | 750 | 3 x 36 | ■ | | 215 | ED303HS | 2CPX066520R9999 | |
| 4 | 600 | 2 | 500 | 4 x 22 | ■ | | 215 | ED204HS | 2CPX066518R9999 | |
| | 600 | 3 | 750 | 4 x 36 | ■ | | 215 | ED304HS | 2CPX066521R9999 | |
| 5 | 750 | 2 | 500 | 5 x 22 | ■ | | 215 | ED205HS | 2CPX066519R9999 | |
| | 750 | 3 | 750 | 5 x 36 | ■ | | 215 | ED305HS | 2CPX066522R9999 | |



ED103VS



ED203VS

- SMISSLINE TP combination sets for vertical device arrangement
- Extension with DIN rails 35 x 15 mm
- A cable laying grid is included for cable fixing
- The DIN rails and cable laying grids are flush with the module
- Important: Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails
- Planning aid for SMISSLINE TP socket base rows, see page 9/64
- The EDF profile rails are included in the scope of delivery

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 450 | 1 | 250 | 1 x 22 | ■ | | 215 | ED103VS | 2CPX066523R9999 | |
| | 450 | 2 | 500 | 2 x 22 | ■ | | 215 | ED203VS | 2CPX066526R9999 | |
| 4 | 600 | 1 | 250 | 1 x 30 | ■ | | 215 | ED104VS | 2CPX066524R9999 | |
| | 600 | 2 | 500 | 2 x 30 | ■ | | 215 | ED204VS | 2CPX066527R9999 | |
| 5 | 750 | 1 | 250 | 1 x 38 | ■ | | 215 | ED105VS | 2CPX066525R9999 | |
| | 750 | 2 | 500 | 2 x 38 | ■ | | 215 | ED205VS | 2CPX066528R9999 | |



ED30P2

| Article | Pieces | Type | Ord. no. | Price |
|---|---|---|---|---|
| **Panel connector**<br>Used to join combination sets. Maximum size must not exceed 5 (9 GU) | 2 | ED30P2 | 2CPX062302R9999 | |

# SMISSLINE TP plug-in system
## Cable laying grids, DIN rails, fixing brackets



ZW430

| Article | To be used for ... | PU/pcs. | Type | Ord. no. | Price |
|---|---|---|---|---|---|
| **Cable laying grids** width 100 mm<br>Length | | | | | |
| 450 mm | M(B)C103VS | 1 | ZW430 | 2CPX042170R9999 | |
| 600 mm | M(B)C104VS | 1 | ZW431 | 2CPX042171R9999 | |
| 750 mm | M(B)C105VS | 1 | ZW432 | 2CPX042172R9999 | |
| 900 mm | - | 1 | ZW433 | 2CPX042173R9999 | |
| 1050 mm | - | 1 | ZW434 | 2CPX042174R9999 | |
| 2000 mm | - | 1 | ZW435 | 2CPX042175R9999 | |



ZW436

| | | | | | |
|---|---|---|---|---|---|
| **Cable laying grids** width 200 mm<br>Length | | | | | |
| 450 mm | M(B)C203VS | 1 | ZW436 | 2CPX042176R9999 | |
| 600 mm | M(B)C204VS | 1 | ZW437 | 2CPX042177R9999 | |
| 750 mm | M(B)C205VS | 1 | ZW438 | 2CPX042178R9999 | |
| 900 mm | - | 1 | ZW439 | 2CPX042179R9999 | |
| 1050 mm | - | 1 | ZW440 | 2CPX042180R9999 | |
| 2000 mm | - | 1 | ZW441 | 2CPX042181R9999 | |
| 3000 mm | - | 1 | ZW460 | 2CPX073256R9999 | |



ZW470

| | | | | | |
|---|---|---|---|---|---|
| **Cable laying grids** width 300 mm<br>Length | | | | | |
| 3000 mm | - | 1 | ZW470 | 2CPX073257R9999 | |

# SMISSLINE TP plug-in system
## Cable laying grids, DIN rails, fixing brackets



ZW257



ZW359



ED73



ED52



ZX399

| | | | | | |
|---|---|---|---|---|---|
| **Mounting brackets for cable laying grids**<br>For min. cabinet depths of 275 mm | | | | | |
| 1 panel wide | M(B)C1...VS | 1 | ZW257 | 2CPX042182R9999 | |
| 2 panel wide | M(B)C2...VS | 1 | ZW258 | 2CPX042183R9999 | |
| 3 panel wide | M(B)C3...VS | 1 | ZW359 | 2CPX042912R9999 | |
| **DIN rails vertical**<br>For a module height of | | | | | |
| 450 mm | M(B)C...03VS | 1 | ED73 | 2CPX042184R9999 | |
| 600 mm | M(B)C...04VS | 1 | ED74 | 2CPX042185R9999 | |
| 750 mm | M(B)C...05VS | 1 | ED75 | 2CPX042186R9999 | |
| **DIN rail, horizontal mounting** | | | | | |
| 2 panel wide | M(B)C2...HS | 1 | ED52 | 2CPX039252R9999 | |
| 3 panel wide | M(B)C3...HS | 1 | ED53 | 2CPX039253R9999 | |
| **Fixing brackets for horizontal DIN rails**<br>1 set left / right | M(B)C...HS | 1 | ZX399 | 2CPX062669R9999 | |

# SMISSLINE TP plug-in system
## Cover holders, panel connectors, raising frames



ED137P4



ED138P12



ED135P4



ED50P12



ED30P2



ED213

| Article | PU/pcs. | Type | Ord. no. | Price |
|---|---|---|---|---|
| **Cover holder**<br>45 mm high, required to alter the height of the cover when using mounting adapters in vertical modules | 4 | ED137P4 | 2CPX062600R9999 | |
| **Cover holder**<br>52.5 mm high | 12 | ED138P12 | 2CPX062602R9999 | |
| | 40 | ED138P40 | 2CPX062603R9999 | |
| **Space**<br>Used to extend the cover holder by 25 mm | 4 | ED135P4 | 2CPX062610R9999 | |
| **90° press and turn closure** | 12 | ED50P12 | 2CPX062337R9999 | |
| **Panel connector**<br>Used to join distribution panels or combination sets with each other. Maximum total panel size must not exceed OH 5 (9 GU) | 2 | ED30P2 | 2CPX062302R9999 | |
| **Raising frames for covers**<br>45 mm high, required to alter the height of the cover when using mounting adapters in vertical modules<br>External dimension | | | | |
| 450 x 250 mm | 1 | ED213 | 2CPX062783R9999 | |
| 600 x 250 mm | 1 | ED214 | 2CPX062784R9999 | |
| 750 x 250 mm | 1 | ED215 | 2CPX062785R9999 | |
| 450 x 500 mm | 1 | ED223 | 2CPX062788R9999 | |
| 600 x 500 mm | 1 | ED224 | 2CPX062789R9999 | |
| 750 x 500 mm | 1 | ED225 | 2CPX062790R9999 | |
| 450 x 750 mm | 1 | ED233 | 2CPX062793R9999 | |
| 600 x 750 mm | 1 | ED234 | 2CPX062794R9999 | |
| 750 x 750 mm | 1 | ED235 | 2CPX062795R9999 | |

# SMISSLINE TP plug-in system
## Plastic cover horizontal



AS22H

| Article | To be used for ... | PU/pcs. | Type | Ord. no. | Price |
|---|---|---|---|---|---|
| **Plastic cover horizontal** with device slot, 2 panel wide | | | | | |
| 300 x 500 mm | M(B)C202HS | 1 | AS22H | 2CPX062764R9999 | |
| 450 x 500 mm | M(B)C203HS | 1 | AS23H | 2CPX062765R9999 | |
| 600 x 500 mm | M(B)C204HS | 1 | AS24H | 2CPX062766R9999 | |
| 750 x 500 mm | M(B)C205HS | 1 | AS25H | 2CPX062767R9999 | |



AS32H

| | | | | | |
|---|---|---|---|---|---|
| **Plastic cover horizontal** with device slot, 3 panel wide | | | | | |
| 300 x 750 mm | M(B)C302HS | 1 | AS32H | 2CPX062768R9999 | |
| 450 x 750 mm | M(B)C303HS | 1 | AS33H | 2CPX062769R9999 | |
| 600 x 750 mm | M(B)C304HS | 1 | AS34H | 2CPX062770R9999 | |
| 750 x 750 mm | M(B)C305HS | 1 | AS35H | 2CPX062771R9999 | |

# SMISSLINE TP plug-in system
## Plastic cover vertical



AS13V

| Article | To be used for ... | PU/pcs. | Type | Ord. no. | Price |
|---|---|---|---|---|---|
| **Plastic cover vertical** with device slot, 1 panel wide | | | | | |
| 450 x 250 mm | M(B)C103VS | 1 | AS13V | 2CPX062772R9999 | |
| 600 x 250 mm | M(B)C104VS | 1 | AS14V | 2CPX062773R9999 | |
| 750 x 250 mm | M(B)C105VS | 1 | AS15V | 2CPX062774R9999 | |



AS23V

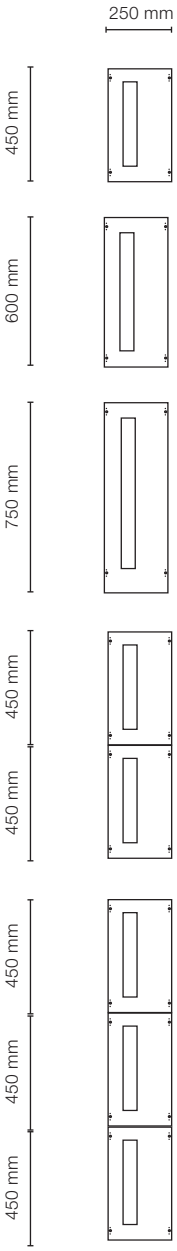
| | | | | | |
|---|---|---|---|---|---|
| **Plastic cover vertical** with device slot, 2 panel wide | | | | | |
| 450 x 500 mm | M(B)C203VS | 1 | AS23V | 2CPX062775R9999 | |
| 600 x 500 mm | M(B)C204VS | 1 | AS24V | 2CPX062776R9999 | |
| 750 x 500 mm | M(B)C205VS | 1 | AS25V | 2CPX062777R9999 | |



AS35V

| | | | | | |
|---|---|---|---|---|---|
| **Plastic cover vertical** with device slot, 3 panel wide | | | | | |
| 750 x 750 mm | M(B)C305VS | 1 | AS35V | 2CPX062796R9999 | |

# SMISSLINE TP plug-in system
## Assignment of CombiLine modules / Combination sets




| Modules for cabinets min. cabinet depth 215 mm | Modules for cabinets min. cabinet depth 275 mm | | Grid units | Socket base length |
|---|---|---|---|---|
| Combination set type | CombiLine mounted | CombiLine flatpack | GU | SU |
| 1 x ED103VS | 1 x MC103VS | 1 x MBC103VS | 3 | 22 |
| 1 x ED104VS | 1 x MC104VS | 1 x MBC104VS | 4 | 30 |
| 1 x ED105VS | 1 x MC105VS | 1 x MBC105VS | 5 | 38 |
| 2 x ED103VS | 2 x MC103VS | 2 x MBC103VS | 6 | 46 |
| 3 x ED103VS | 3 x MC103VS | 3 x MBC103VS | 9 | 72 |

### Planning note

When positioning incoming terminal blocks under cover joints, use the lower terminal blocks ZLS228 or ZLS229.

Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails.

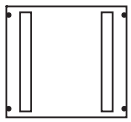
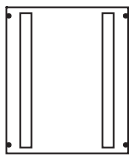
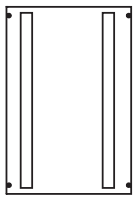
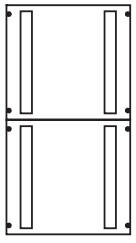
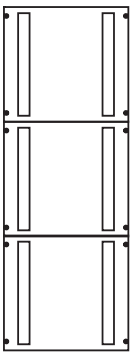
# SMISSLINE TP plug-in system
## Starter kit or socket base in individual parts

| Socket base starter kit | | | Socket base in individual parts | | | |
|---|---|---|---|---|---|---|
| **Pieces** | **Type** | **Article no.** | **Pieces** | **Space units** | **Type** | **Article no.** |
| 1 | ZLS905E22-3L | 2CCA183102R0001 | 2 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 1 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 1 | - | ZLS920 (End part)) | 2CCA183017R0001 |
| 1 | ZLS905E22-3LN* | 2CCA183103R0001 | 3 / 4* | - | ZLS201E22 (Cu bus bar)) | 2CCF800169R0001 |
| 1 | ZLS905E30-3L | 2CCA183110R0001 | 3 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 1 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 1 | - | ZLS920 (End part)) | 2CCA183017R0001 |
| 1 | ZLS905E30-3LN* | 2CCA183111R0001 | 3 / 4* | - | ZLS201E38 (Cu bus bar)) | 2CCF800173R0001 |
| 1 | ZLS905E38-3L | 2CCA183118R0001 | 4 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 1 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 1 | - | ZLS920 (End part)) | 2CCA183017R0001 |
| 1 | ZLS905E38-3LN* | 2CCA183119R0001 | 3 / 4* | - | ZLS201E46 (Cu bus bar)) | 2CCF800177R0001 |
| 1 | ZLS905E46-3L | 2CCA183126R0001 | 5 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 1 | 6 | ZLS906 | 2CCA183035R0001 |
| | ZLS905E46-3LN* | 2CCA183127R0001 | 1 | - | ZLS920 (End part)) | 2CCA183017R0001 |
| 1 | ZLS905E72-3L | 2CCA183152R0001 | 9 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 1 | - | ZLS920 (End part)) | 2CCA183017R0001 |
| 1 | ZLS905E72-3LN* | 2CCA183153R0001 | 3 / 4* | - | ZLS201E72 (Cu bus bar)) | 2CCF800190R0001 |

* For version with N (4-pole)

### Planning note
Additional starter kit with AB-bus bar on demand.

# SMISSLINE TP plug-in system
## Assignment of CombiLine modules / Combination sets

| | Modules for cabinets min. cabinet depth 215 mm | Modules for cabinets min. cabinet depth 275 mm | | Grid units | Socket base length |
|---|---|---|---|---|---|
| | Combination set type | CombiLine mounted | CombiLine flatpack | GU | SU |
| 450 mm  | 1 x ED203VS | 1 x MC203VS | 1 x MBC203VS | 3 | 2 x 22 |
| 600 mm  | 1 x ED204VS | 1 x MC204VS | 1 x MBC204VS | 4 | 2 x 30 |
| 750 mm  | 1 x ED205VS | 1 x MC205VS<br>1 x MC305VS | 1 x MBC205VS<br>1 x MBC305VS | 5 | 2 x 38 |
| 450 mm<br>450 mm  | 2 x ED203VS | 2 x MC203VS | 2 x MBC203VS | 6 | 2 x 46 |
| 450 mm<br>450 mm<br>450 mm  | 3 x ED203VS | 3 x MC203VS | 3 x MBC203VS | 9 | 2 x 72 |



### Planning note

When positioning incoming terminal blocks under cover joints, use the lower terminal blocks ZLS228 or ZLS229.

Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails.

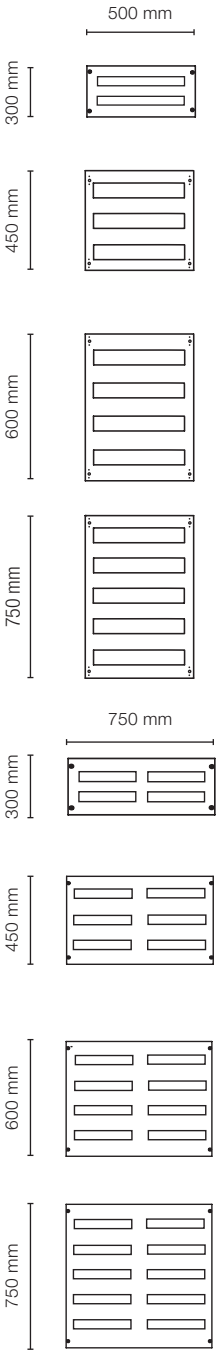
# SMISSLINE TP plug-in system
## Starter kit or socket base in individual parts

| Socket base starter kit | | | Socket base in individual parts | | | |
|---|---|---|---|---|---|---|
| **Pieces** | **Type** | **Article no.** | **Pieces** | **Space units** | **Type** | **Article no.** |
| 2 | ZLS905E22-3L | 2CCA183102R0001 | 4 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E22-3LN* | 2CCA183103R0001 | 6 / 8* | - | ZLS201E22 (Cu bus bar) | 2CCF800165R0001 |
| 2 | ZLS905E30-3L | 2CCA183110R0001 | 6 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E30-3LN* | 2CCA183111R0001 | 6 / 8* | - | ZLS201E30 (Cu bus bar | 2CCF800169R0001 |
| 2 | ZLS905E38-3L | 2CCA183118R0001 | 8 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E38-3LN* | 2CCA183119R0001 | 6 / 8* | - | ZLS201E38 (Cu bus bar) | 2CCF800173R0001 |
| 2 | ZLS905E46-3L | 2CCA183126R0001 | 10 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E46-3LN* | 2CCA183127R0001 | 6 / 8* | - | ZLS201E46 (Cu bus bar) | 2CCF800177R0001 |
| 2 | ZLS905E72-3L | 2CCA183152R0001 | 18 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E72-3LN* | 2CCA183153R0001 | 6 / 8* | - | ZLS201E72 (Cu bus bar) | 2CCF800190R0001 |

* For version with N (4-pole)

### Planning note
Additional starter kit with AB-bus bar on demand.

# SMISSLINE TP plug-in system
## Assignment of CombiLine modules / combination sets




| Modules for cabinets min. cabinet depth 215 mm | Modules for cabinets min. cabinet depth 215 mm | | Grid units | Socket base length |
|---|---|---|---|---|
| Combination set type | CombiLine mounted | CombiLine flatpack | GU | SU |
| – | 1 x MC202HS | 1 x MBC202HS | 2 | 2 x 22 |
| 1 x ED203HS | 1 x MC203HS | 1 x MBC203HS | 3 | 3 x 22 |
| 1 x ED204HS | 1 x MC204HS | 1 x MBC204HS | 4 | 4 x 22 |
| 1 x ED205HS | 1 x MC205HS | 1 x MBC205HS | 5 | 5 x 22 |
| – | 1 x MC302HS | 1 x MBC302HS | 2 | 2 x 36 |
| 1 x ED303HS | 1 x MC3032HS | 1 x MBC303HS | 3 | 3 x 36 |
| 1 x ED304HS | 1 x MC304HS | 1 x MBC304HS | 4 | 4 x 36 |
| 1 x ED305HS | 1 x MC305HS | 1 x MBC305HS | 5 | 5 x 36 |

### Planning note

For modules of 3 panel width the incoming terminal block serves as centre supply.

# SMISSLINE TP plug-in system
## Starter kit or socket base in individual parts

| Socket base starter kit | | | Stecksockel in Einzelteilen | | | |
|---|---|---|---|---|---|---|
| **Pieces** | **Type** | **Article no.** | **Pieces** | **Space units** | **Type** | **Article no.** |
| 2 | ZLS905E22-3L | 2CCA183102R0001 | 4 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 2 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E22-3LN* | 2CCA183103R0001 | 6 / 8* | - | ZLS201E22 (Cu bus bar) | 2CCF800165R0001 |
| 3 | ZLS905E22-3L | 2CCA183102R0001 | 6 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 3 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 3 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 3 | ZLS905E22-3LN* | 2CCA183103R0001 | 9 / 12* | - | ZLS201E22 (Cu bus bar) | 2CCF800165R0001 |
| 4 | ZLS905E22-3L | 2CCA183102R0001 | 8 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 4 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 4 | | ZLS920 (End part) | 2CCA183017R0001 |
| 4 | ZLS905E22-3LN* | 2CCA183103R0001 | 12 / 16* | | ZLS201E22 (Cu bus bar) | 2CCF800165R0001 |
| 5 | ZLS905E22-3L | 2CCA183102R0001 | 10 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 5 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 5 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 5 | ZLS905E22-3LN* | 2CCA183103R0001 | 15 / 20* | - | ZLS201E22 (Cu bus bar) | 2CCF800165R0001 |
| 2 | ZLS905E36-3L | 2CCA183116R0001 | 6 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 4 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 2 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 2 | ZLS905E36-3LN* | 2CCA183117R0001 | 6 / 8* | - | ZLS201E36 (Cu bus bar) | 2CCF800172R0001 |
| 3 | ZLS905E36-3L | 2CCA183116R000 | 9 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 6 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 3 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 3 | ZLS905E36-3LN* | 2CCA183117R0001 | 9 / 12* | - | ZLS201E36 (Cu bus bar) | 2CCF800172R0001 |
| 4 | ZLS905E36-3L | 2CCA183116R000 | 12 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 8 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 4 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 4 | ZLS905E36-3LN* | 2CCA183117R0001 | 12 / 16* | - | ZLS201E36 (Cu bus bar) | 2CCF800172R0001 |
| 5 | ZLS905E36-3L | 2CCA183116R000 | 15 | 8 | ZLS908 | 2CCA183030R0001 |
| | | | 10 | 6 | ZLS906 | 2CCA183035R0001 |
| | | | 5 | - | ZLS920 (End part) | 2CCA183017R0001 |
| 5 | ZLS905E36-3LN* | 2CCA183117R0001 | 15 / 20* | - | ZLS201E36 (Cu bus bar) | 2CCF800172R0001 |

* For version with N (4-pole)

### Planning note
Additional starter kit with AB-bus bar on demand.

# SMISSLINE TP plug-in system
## Vertical installation on ArTu K switchboards



ArTu K

**Kit for ArTu K switchboard, heigth 1800 mm and specular switch rows**

| Description | EAN | Order details | Price 1 piece | Pack unit | Weight 1 piece |
|---|---|---|---|---|---|
| | 8015649 | Type | | pc. | kg |
| Width 600 mm, right hand opening | 631695 | PM1636 | | 1 | 17,84 |
| Width 600 mm, left hand opening | 728517 | PM1646 | | 1 | 18,20 |
| Width 800 mm, right hand opening | 632777 | PM1637 | | 1 | 23,78 |
| Width 800 mm, left hand opening | 728524 | PM1647 | | 1 | 24,27 |

**Kit for ArTu K switchboard, heigth 2000 mm and specular switch rows**

| Description | EAN | Order details | Price 1 piece | Pack unit | Weight 1 piece |
|---|---|---|---|---|---|
| | 8015649 | Type | | pc. | kg |
| Width 600 mm, right hand opening | 631695 | PM1636 | | 1 | 17,84 |
| Width 600 mm, left hand opening | 728517 | PM1646 | | 1 | 18,20 |
| Width 800 mm, right hand opening | 632777 | PM1637 | | 1 | 23,78 |
| Width 800 mm, left hand opening | 728524 | PM1647 | | 1 | 24,27 |

**Kit for ArTu K switchboard, heigth 2000 mm and switch rows with same orientation**

| Description | EAN | Order details | Price 1 piece | Pack unit | Weight 1 piece |
|---|---|---|---|---|---|
| | 8015649 | Type | | pc. | kg |
| Width 800 mm, right hand opening | 632791 | PM1639 | | 1 | 23,78 |
| Width 800 mm, left hand opening | 728548 | PM1649 | | 1 | 24,27 |



Right hand opening Left hand opening

# Solutions for electrical distribution in buildings
## Industrial plugs and sockets

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# Industrial plugs and sockets
## Reliable, durable and safe. Perfect for your application.

These products are used for connection of equipment in all kind of applications where it needs to be possible to connect and disconnect. ABB industrial plugs and sockets are chosen when safety, reliability and durability is requested.

Durable equipment prevents time and cost lost due to maintenance.



Reliable contacts prevent stops and power breaks, which leads to increased productivity.

Safe connections prevent accidents.

# Industrial plugs and sockets
## Sockets



416RS6



463MHS6



CUE 416-6+R/UJP

It is all about service and simplicity, availability and efficiency, plug and play. Some things should just be there when you need them. Like when you can not find the charger for your phone while the battery is low and you have to make an important call, the same feeling of crisis appears when you do not have the correct plug and socket for the equipment you need to use to do your job.

### Surface socket outlets 16 A, IP44 Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 2P+E | 200-250 | 50 and 60 | | 216RS6 | 2CMA193098R1000 | | 0.22 | 1 |
| 3P+E | 380-415 | | | 316RS6 | 2CMA193106R1000 | | 0.24 | 1 |
| 3P+N+E | 346-415 | | | 416RS6 | 2CMA193115R1000 | | 0.26 | 1 |

### Surface socket outlets 32 A, IP44 Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 2P+E | 200-250 | 50 and 60 | | 232RS6 | 2CMA193122R1000 | | 0.30 | 1 |
| 3P+E | 380-415 | | | 332RS6 | 2CMA193130R1000 | | 0.32 | 1 |
| 3P+N+E | 346-415 | | | 432RS6 | 2CMA193139R1000 | | 0.34 | 1 |

### Surface socket outlet 63 A, IP44 Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 3P+N+E | 346-415 | 50 and 60 | | 463RS6 | 2CMA167484R1000 | | 1.05 | 1 |

### Switched interlocked sockter outlets 16 A, IP44, Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 2P+E | 200-250 | 50 and 60 | | 216MHS6 | 2CMA167623R1000 | | 0.55 | 1 |
| 3P+N+E | 346-415 | | | 416MHS6 | 2CMA167640R1000 | | 0.61 | 1 |

### Switched interlocked sockter outlet 32 A, IP44, Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 3P+N+E | 346-415 | 50 and 60 | | 432MHS6 | 2CMA167686R1000 | | 0.66 | 1 |

### Switched interlocked sockter outlet 63 A, IP44, Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 3P+N+E | 346-415 | 50 and 60 | | 463MHS6 | 2CMA167727R1000 | | 2.10 | 1 |

### Surface socket outlet with schuko, 16 A, IP44, Splashproof

| Terminals/ Poles | Voltage | Frequency | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|---|---|
| | V | Hz | EAN | Type code | Order code | | kg | pc. |
| 3P+N+E | 400/230 | 50 and 60 | | CUE 416-6+R/UJP | 2C2CMA178301R1000 | | 0.34 | 1 |

# Industrial plugs and sockets
## Modular Combi

Modular Combi is a system consisting of compact units replacing outlets, that traditionally has been scattered around the walls. Modular Combi is a cost effective system with different types of outlets, RCDs and MCBs in one location. Modular Combi is very easy to install and, thanks to the solutions and design, it saves time and money.
Easy to modify in the future for additional needs. Modular Combi can easily be customized for special applications.

| Technical features | |
|---|---|
| Operating voltage | 230/400 V ~ |
| Enclosure | Plastic (PBT) |
| Dimensions | According to table or customer order |
| Outlets | Combi Plastic is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A. With or without mechanical interlocked IEC outlets. |
| Cable entry | 4 knock-outs at the top, suitable for 2xØ 40 mm and 2xØ 25 mm |
| | At the bottom 3xØ 47 mm |
| Cable area | 2x16 $mm^2$ Cu. Designed for looping |
| Covers | For MCB/RCD, maximum 13 modules, 2 opened and knock-outs for the rest of the modules row. DIN-rail in bottom for terminals and MCB/RCDs. |
| | With a distance at the bottom to allow wiring behind the rail. The lid is pad lockable. |



## For 16 A, IP44 Splashproof

Box size WxHxD: 250x300x160

| Socket outlet | RCD 30 mA | MCB | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 2x10/16 A | yes | - | | MPR16 * | 2CMA168997R1000 | | 2.3 | |
| IEC 60309, 1x16 A, 3P+N+E | yes | 3P | | | | | | |

*) Indicates standard product.



## For 32 A, IP44 Splashproof

Box size WxHxD: 250x300x160

| Socket outlet | RCD 30 mA | MCB | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 4x10/16 A | yes | 2x1P | | MPR32 * | 2CMA168991R1000 | | 4.0 | |
| IEC 60309, 1x16 A, 3P+N+E | yes | 3P | | | | | | |
| IEC 60309, 1x32 A, 3P+N+E | - | 3P | | | | | | |

*) Indicates standard product.



## For 63 A, IP44 Splashproof

Box size WxHxD: 250x430x160

| Socket outlet | RCD 30 mA | MCB | Bbn<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|---|---|
| 3x10/16 A | - | 2x1P | | MP63 * | 2CMA168990R1000 | | 4.0 | |
| IEC 60309, 1x16 A, 3P+N+E | - | 3P | | | | | | |
| IEC 60309, 1x32 A, 3P+N+E | - | 3P | | | | | | |
| IEC 60309, 1x63 A, 3P+N+E | - | - | | | | | | |

*) Indicates standard product.



See full offer of industrial plugs and sockets in specialized Industrial plugs and sockets catalogue or at http://new.abb.com/low-voltage/products/industrial-plugs-and-sockets.

# Solutions for electrical distribution in buildings
## Intelligent Building Solutions


**ABB i-bus® KNX**

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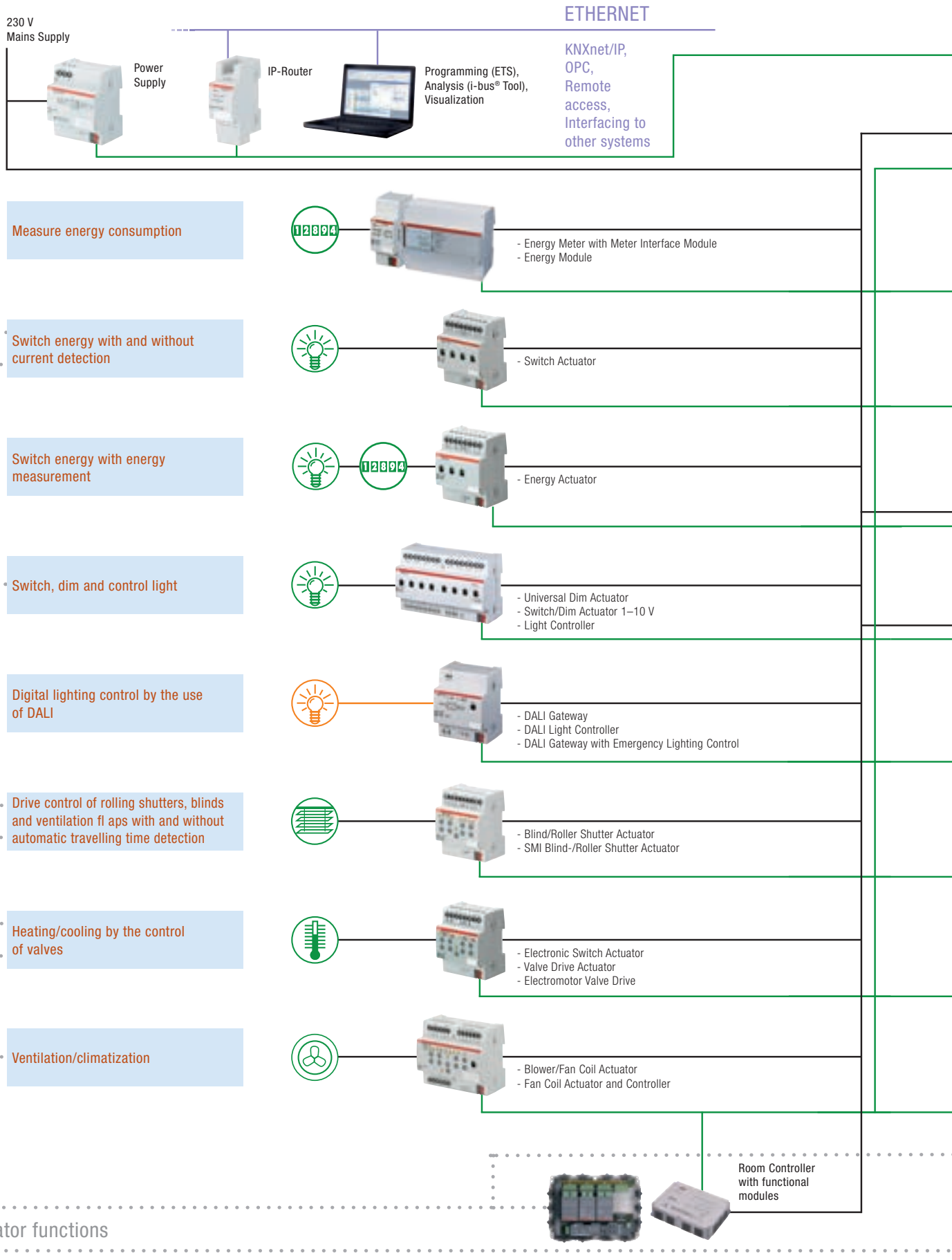
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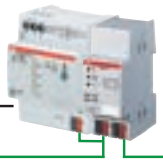
# Intelligent Building Solutions
## ABB i-bus® KNX – Overview



## KNX-Main Line/TP

Line 1 2 3 4 … … 13 14 15

Power Supply



Line Coupler

- 64 devices/line
- 15 lines/area with superordinated main line
- max. 15 areas with superordinated area line

- Binary Input



Detect and evaluate switching commands

- Analogue Input



Capture, evaluate and monitor physical values

- Weather Station and Weather Sensor



Evaluate and monitor meteorological data (wind, temperature, rain, etc.)



Display operating conditions and control functions

- Presence Detector
- Movement Sensor
- Light Sensor



Detect presence and movement

Measure brightness level

Lighting Control

- Logic Module
- Application Unit Logic
- Application Unit Time
- Time Switch





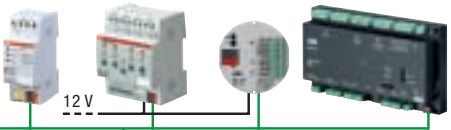
Perform logical operations and trigger timer-controlled functions

- Room Thermostat
- Air Quality Sensor



Capture, evaluate, monitor and control room conditions, temperature, air quality, etc.

- Security Terminal
- Security Module
- KNX Security Panel
- Fault Monitoring Unit
- Monitoring Unit
- Data Logging Unit



12 V

Monitor operating conditions, signal technical faults, recognize hazards and trigger alarms

Security System

Room Master devices with different coMWinations of inputs and outputs and internal logical interconnection



Sensor functions

Solutions for rooms with sensor and actuator functions

11



SV/S 30.160.1.1

## Power Supply, 160 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status. With two-coloured status indicator and wide range input from 85…265 V AC, 50/60 Hz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SV/S 30.160.1.1 | 2CDG110144R0011 | | 1 | 0.30 |



SV/S 30.320.1.1

## Power Supply, 320 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status.
With two-coloured status indicator and wide range input from 85…265 V AC, 50/60 Hz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SV/S 30.320.1.1 | 2CDG110166R0011 | | 1 | 0.30 |



SV/S 30.640.3.1

## Power Supply, 640 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status.
Device type SV/S 30.640.3.1 has an additional 30 V DC short-circuit and overload protected voltage output that can be used to power an additional bus line (in combination with a separate choke).
With two-coloured status indicator and wide range input from 85…265 V AC, 50/60 Hz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SV/S 30.640.3.1 | 2CDG110167R0011 | | 1 | 0.30 |



SV/S 30.320.2.1

### Power Supply with diagnostics, 320 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SV/S 30.320.2.1 | 2CDG110145R0011 | | 1 | 0.26 |



SV/S 30.640.5.1

### Power Supply with diagnostics, 640 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool. Additional voltage output to supply an additional line in conjunction with an additional choke.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SV/S 30.640.5.1 | 2CDG110146R0011 | | 1 | 0.26 |



SU/S 30.640.1

### Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 8 | SU/S 30.640.1 | GHQ6310049R0111 | | 1 | 0.55 |



AM/S 12.1

### Battery Module, 12 V DC, MDRC

With lead-gel battery for use in uninterruptible power supply SU/S 30.640.1 and for maintaining the bus voltage during a mains failure for 10 minutes (at full load). Connection is made via 4-core standard cable.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 8 | AM/S 12.1 | GHQ6310062R0111 | | 1 | 0.81 |


KS/K 4.1


KS/K 2.1

## Cable Sets

For connection of sealed lead gel batteries SAK7, SAK12 and SAK17 to the uninterruptible KNX power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. If only one battery is connected, the basic cable set KS/K 4.1 with integrated temperature sensor is to be used. In case two batteries are connected in parallel, the basic cable set KS/K 4.1 is to be used for the first battery and the extension cable set KS/K 2.1 is to used for the second battery. It is not permitted to connect more than two batteries in parallel.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Basic | – | KS/K 4.1 | GHQ6301910R0001 | | 1 | 0.18 |
| Extension | – | KS/K 2.1 | GHQ6301910R0011 | | 1 | 0.12 |


SAK17, SAK12, SAK7

## Sealed Lead Acid Batteries, 12 V DC

For maintaining the bus voltage during a mains failure. For connection to the uninterruptible power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. A maximum of two batteries of the same type can be connected in parallel. For connection, the cable sets KS/K 4.1 and KS/K 2.1 are to be used.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 7 Ah | – | SAK7 | GHV9240001V0011 | | 1 | 2.98 |
| 12 Ah | – | SAK12 | GHV9240001V0012 | | 1 | 4.66 |
| 17 Ah | – | SAK17 | GHV9240001V0013 | | 1 | 7.15 |


DR/S 4.1

## Choke, MDRC

The device can be used together with the SV/S 30.640.5 to supply a second line. Integrated reset button for resetting the bus devices. Connection via connection terminals.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | DR/S 4.1 | 2CDG110029R0011 | | 1 | 0.16 |


NTI/Z 28.30.1

## Commissioning Power Supply, 28 V DC, 30 mA

For temporary power supply of KNX devices during commissioning. The Euroconnector and plug-in terminal provide faster connection and supply of devices with manual operation (e.g. FCA/S).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | NTI/Z 28.30.1 | 2CDG110096R0011 | | 1 | 0.14 |

# Intelligent Building Solutions
# ABB i-bus® KNX – Power Supplies



NT/S 12.1600

## Power Supply Units, MDRC

The supply units that can be used universally as the auxiliary power supply in KNX installations or other SELV applications. The devices supply a regulated output voltage of 12 V DC or 24 V DC with a maximum output current of 1.6 A or 0.8 A. The units are protected against overload, the output being able to sustain a continuous short circuit. LED indication of the status of the supply and output voltage.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 12 V DC, 1,6 A | 4 | NT/S 12.1600 | GHQ6050056R0002 | | 1 | 0.26 |
| 24 V DC, 1,6 A | 4 | NT/S 24.800 | GHQ6050057R0002 | | 1 | 0.26 |



NTU/S 12.2000.1

## Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 12 V DC, 2 A | 8 | NTU/S 12.2000.1 | 2CDG110070R0011 | | 1 | 0.43 |



LK/S 4.2

## Line Coupler, MDRC

The line coupler is used in larger installations to connect KNX lines or areas. The lines or areas are galvanically isolated from one another. Telegrams can be filtered to simultaneously reduce the telegram traffic between lines or areas. With ETS 4 (V4.1.2 and higher) the complete group address range of the main groups 0...31 can be filtered. Within a line, the LK/S 4.2 can also be used as a line amplifier (repeater).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | LK/S 4.2 | 2CDG110171R0011 | | 1 | 0.1 |



IPR/S 3.1.1

## IP Router, MDRC NEW

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Routing and Tunneling). It can be used as a fast line and area coupler. The full filter table for main groups 0-31 is supported. KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12..30 V DC or PoE.
The KNX Standard Communication (Multicast) can be switched off. In this case, up to 10 IPR/S 3.1.1 can communicate using unicast communication.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | IPR/S 3.1.1 | 2CDG110175R0011 | | 1 | 0.11 |



IPR/S 2.1

## IP Router, MDRC

The IP Router is the interface between the KNX installations and the IP networks. It can be used as a quick line or area coupler or utilise the local network (LAN) for quick exchange of telegrams between the lines/areas. With ETS 3.0, KNX devices can be programmed via LAN. The device uses the KNXnet/IP protocol of the KNX Association (Routing and Tunnelling). The IP address can be fixed or received from a DHCP server.
The device requires a 10 to 30 V DC power supply.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | IPR/S 2.1 | 2CDG110061R0011 | | 1 | 0.11 |



IPS/S 3.1.1

## IP Interface, MDRC NEW

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Tunneling). KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available.
The IP address can be fixed or can be received from a DHCP server. Power supply via 12..30 V DC or PoE.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | IPS/S 3.1.1 | 2CDG110177R0011 | | 1 | 0.11 |



ISM/S 5.1

## IP Switch, Master, MDRC

IP Switch Master for MDRC installation. For networking of up to 5 end devices. Can be extended to 10 end devices by side connection of the IP Switch Slave (ISS/S). One of the ports is a Gigabit Ethernet enabled and can serve as an uplink port.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | ISM/S 5.1 | 2CDG120034R0011 | | 1 | 0.35 |



ISS/S 5.1

## IP Switch, Slave, MDRC

IP Switch Slave for MDRC installation. For networking of up to 5 end devices.
Can be side connected to the IP Switch Master (ISM/S), accordingly can be extended to 10 end devices. The slave is only functional together with the master.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | ISS/S 5.1 | 2CDG120035R0011 | | 1 | 0.23 |



8186/03-500

## Patch Panel PoE 3gang, MDRC

For the setup of small and medium-sized network installations. For the power supply of up to 3 terminal devices such as IP telephone or IP webcams direct via the network cable. For all PoE applications of class 0 to 3, such as IP telephone, IP cameras, WLAN access points or PoE switches. External power supply via 8186/04 necessary.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | 8186/03-500 | 8100-0-0344 | | 1 | |



8186/04-500

## Power supply PoE 48 V, DRA

For the setup of small and medium-sized network installations. For the power supply of patch panel PoE 3gang 8186/03. Nominal voltage: 100 – 240 V.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | 8186/04-500 | 8100-0-0346 | | 1 | |



IPM/S 1.1

## IP Patch Module, MDRC

The IP Patch Module consists of an RJ-45 module and a mounting adapter for rail mounting.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 1 | IPM/S 1.1 | 2CDG120036R0011 | | 1 | 0.1 |



USB/S 1.1

## USB Interface, MDRC

For connection of a PC via the USB port for programming and diagnostics from ETS3. Display of connection and data transfer via LED.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | USB/S 1.1 | 2CDG110008R0011 | | 1 | 0.12 |



LL/S 1.1

## Optical Fibre Interface, MDRC

The device is used to couple two sections of an bus line using an optical fibre link. Ideal for bridging longer distances or to avoid having to implement lightning and overvoltage protection when laying cables between buildings. Two devices are needed to complete a transmission link.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | LL/S 1.1 | GHQ6050053R0001 | | 1 | 0.28 |



EG/A 32.2.1

## KNX/EnOcean Gateway, SM

To connect and integrate EnOcean devices into KNX networks with bidirectional data exchange. The KNX/EnOcean Gateway sends its data within the 868.3 MHz frequency band which is only approved for EnOcean in the European Union incl. Switzerland, Turkey & Norway. Please ensure that the product is suitable for application in the intended country of final installation and use before purchase. Dimensions: (L x W x H) 100 x 70 x 28.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | EG/A 32.2.1 | 2CDG120047R0011 | | 1 | 0.1 |



MKE/A1.868.1

## Magnetic Contact EnOcean NEW

The Magnetic Contact EnOcean is a surface mounted device for windows or doors recognizing opening or closing. The magnetic contact EnOcean communicates on this with a gateway via radio.
The frequency is 868.3 MHz. The interior range is up to 30 m, typically 5 – 10 m, depending on the structural conditions. When using the ABB i-bus® KNX/EnOcean Gateway EG/A 32.2.1, to link to the KNX-Bus, the signal strength can be measured with the ABB i-bus® Tool.
The magnetic contact supplies itself with power via a solar cell and does not require a battery or other supply voltage.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | MKE/A 1.868.1 | 2CDG120048R0011 | | 1 | 0.1 |



SE/K 1.868.1

## Valve Drive EnOcean NEW

The Valve Drive EnOcean is used for efficient room temperature control. It communicates via the wireless, bidirectional EnOcean protocol. The Valve Drive has a large display for showing the current room temperature setpoint and a setting dial for manual setpoint adjustment. Via the ABB i-bus KNX/EnOcean Gateway (EG/A 32.2.1) the Valve Drive EnOcean can easily be included in every KNX system.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SE/K 1.868.1 | 2CDG120051R0011 | | 1 | 0.28 |



6770-500

## KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6770-500 | 6770-0-0002 | | 1 | |

WaveLINE components are available in chapter WaveLINE wireless control.



DSM/S 1.1

## Diagnosis and Protection Module, MDRC

Enables quick diagnosis of the bus state and indicates telegram traffic via an LED. A bus fault is indicated by contacts. The DSM also suppresses transient overvoltages and interference voltage spikes on the bus and thus protects the connected devices.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | DSM/S 1.1 | 2CDG110060R0011 | | 1 | 0.11 |



VB/K ...

## Wiring Jumpers

For the interconnection of devices with a bus connection terminal. The vertical and horizontal versions are matched to typical wiring applications.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| horizontal, 100 mm | – | VB/K 100.1 | GHQ6301908R0003 | | 10 | 0.06 |
| horizontal, 200 mm | – | VB/K 200.1 | GHQ6301908R0001 | | 10 | 0.07 |
| vertical, 270 mm | – | VB/K 270.1 | GHQ6301908R0002 | | 10 | 0.11 |
| vertical, 360 mm | – | VB/K 360.1 | GHQ6301908R0004 | | 10 | 0.16 |



PS 1/4/6-KNX



PS-END 1-S

## Busbars

For interconnection of the phase supply to multiple input terminals on devices such as SD/S, SA/S, 6197, … . They reduce the wiring effort and ensure safe interconnection. The PS 1/4/6 is prefabricated and can be used immediately. The PS 1/60/6 is cut to the desired length and sealed with end caps.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1 phase, 4 contacts | – | PS 1/4/6-KNX | 2CDG924003R0011 | | 10 | 0.012 |
| 1 phase, 60 contacts | – | PS 1/60/6-KNX | 2CDG924004R0011 | | 1 | 0.11 |
| End cap | – | PS-END 1-S | 2CDL000001R0001 | | 25 | 0.001 |



US/E 1

## Connection Terminals

For connecting bus devices as well as for looping through or branching the bus cable. Available in black/red for use as bus connecting terminal, in blue as bus connecting terminal with surge protector and in white/yellow for use as a connecting terminal.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| black/red | – | BUSKLEMME | GHQ6301901R0001 | | 50 | 0.1 |
| white/yellow | – | KLEMME | GHQ6301902R0001 | | 50 | 0.1 |
| with surge protector | – | US/E 1 | GHQ6310009R0001 | | 1 | 0.01 |

## Label Carrier

Snap-on label carrier consisting of transparent carrier plate and insertable blank paper labels.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Label Carrier, 50 pcs. | – | STR/Z 1.50.1 | 2CDG110149R0011 | | 1 | 0.04 |

# S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.

Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. **www.abb.com/lowvoltage**





# Intelligent Building Solutions
## ABB i-bus® KNX – Room Automation – Room Controller



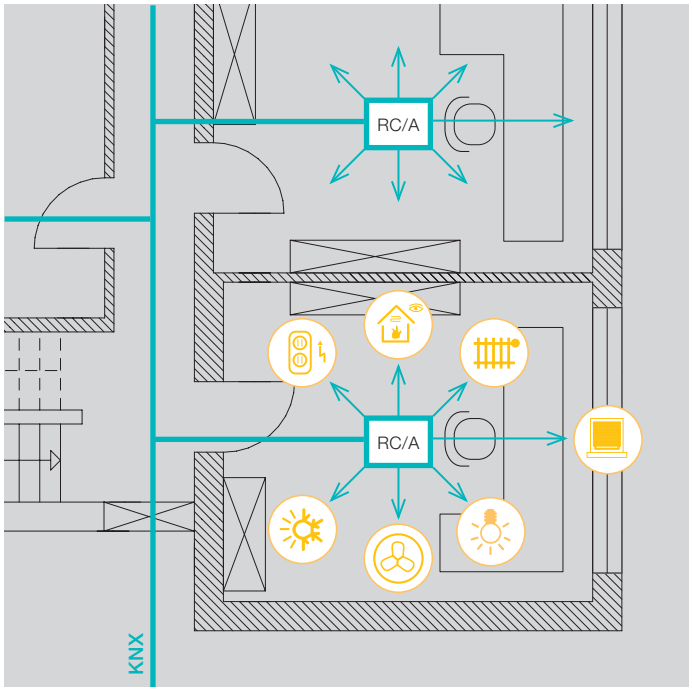
## The fundamental principle: One device per room

A single Room Controller controls all the room functions.
This “one device per room” principle economically and flexibly provides KNX functionality: With 4 or 8 modules, which are simply inserted into the basis device, all loads in this room (lights, blinds, heating, etc.) can be controlled.

## Economic security from the outset

The installation concept of the Room Controller, particularly the simple plug-in module concept, provides security and reliability.

- **When planning the infrastructure of a building:**
  It can be undertaken without exact knowledge of the subsequent user demands.
- **During commissioning:**
  When user demands have been determined, they are implemented by simple insertion of modules.
- **In operation in a building:**
  Modifications to the room utilisation are easy to implement.
  The changes to the cable routing are limited to the room concerned.




## Improved fire protection included

The significant reduction in the wiring also considerably reduces the fire load and thus improves safety for persons and assets.

## Save on energy and not on comfort

Each room is used differently. The different module assignments of the Room Controller can be configured accordingly.
Just three examples of special building functions that can be implemented with the device.

## In the lighting sector

Constant lighting control is not the only conceivable solution.
A high level of comfort can be assured by the control of different light scenes.

## Blinds and roller shutters

Not only do they provide pleasant shading, they also assist in responsible use of energy. Intelligent facade controls move the blinds to suit the position of the sun.

## Heating/Ventilation/Air conditioning

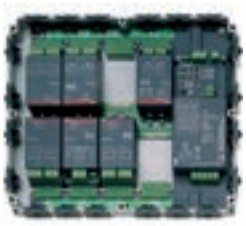
The control of electrothermal valves on radiators is no problem for the “electronic switch actuator” module of the Room Controller. The ventilation can also be integrated into this automatic control.

## Overview of switching performance

| | SA/M 2.6.1 | SA/M 2.16.1 | SD/M 2.6.2 | LR/M 1.6.2 | UD/M 1.300.1 | ES/M 2.230.1 | ES/M 2.24.1 |
|---|---|---|---|---|---|---|---|
| **Outputs** | | | | | | | |
| Load circuits | 2 relay outputs | 2 relay outputs, floating | 2 relay outputs | 1 relay output | Semiconductor output, dimmed via phase interval or phase control | 2 semiconductor outputs for resistive loads, inrush current: max. 1 A, continuous current: max. 700 mA | |
| $U_n$ rated voltage | 250/440 V AC | 250/440 V AC | 250/440 V AC | 250/440 V AC | | | |
| $I_n$ rated current | 6 AX | 16 A | 6 AX | 6 AX | | | |
| Control outputs | | | 2 x 1…10 V DC (passive) | 1 x 1…10 V DC (passive) | | | |
| Max. control current | | | 30 mA | 30 mA | Max. output power 300 VA at 230 V AC 150 VA at 127 V AC Min. output power: 2 VA | | |
| Max. cable length | | | 100 m | 100 m | | | |
| **Switching current per output** | | | | | | | |
| AC3 operation (cos φ = 0.45) EN 60 947-4-1 | 6 A / 230 V | 8 A / 230 V | 6 A / 230 V | 6 A / 230 V | | | |
| AC1 operation (cos φ = 0.45) EN 60 947-4-1 | 6 A / 230 V | 16 A / 230 V | 6 A / 230 V | 6 A / 230 V | | | |
| Fluorescent lighting load AX to EN 60 669 | 6 A / 250 V (70 µF) | 16 A / 250 V (70 µF) | 6 A / 250 V (70 µF) | 6 A / 250 V (70 µF) | | | |
| Minimum switching capacity | 100 mA / 12 V 100 mA / 24 V | 100 mA / 12 V 100 mA / 24 V | 100 mA / 12 V 100 mA / 24 V | 100 mA / 12 V 100 mA / 24 V | | | |
| DC current switching capacity (resistive load) | 6 A / 24 V= | 16 A / 24 V= | 6 A / 24 V= | 6 A / 24 V= | | | |
| **Lamp loads at 230 V AC** | | | | | | | |
| – Incandescent lamp load | 1380 W | 2300 W | 1380 W | 1380 W | | | |
| Fluorescent lamps T5 / T8 | | | | | | | |
| – Uncompensated | 1380 W | 2300 W | 1380 W | 1380 W | | | |
| – Parallel compensated | 1380 W | 1500 W | 1380 W | 1380 W | | | |
| – DUO connection | 1380 W | 1500 W | 1380 W | 1380 W | | | |
| Low-volt halogen lamps | | | | | | | |
| – Inductive transformer | 1200 W | 1200 W | 1200 W | 1200 W | | | |
| – Electronic transformer | 1380 W | 1500 W | 1380 W | 1380 W | | | |
| – Halogen lamp 230 V | 1380 W | 2300 W | 1380 W | 1380 W | | | |
| Dulux lamp | | | | | | | |
| – Uncompensated | 1100 W | 1100 W | 1100 W | 1100 W | | | |
| – Parallel compensated | 1100 W | 1100 W | 1100 W | 1100 W | | | |
| Mercury-vapour lamp | | | | | | | |
| – Uncompensated | 1380 W | 2000 W | 1380 W | 1380 W | | | |
| – Parallel compensated | 1380 W | 2000 W | 1380 W | 1380 W | | | |
| Switching capacity | | | | | | | |
| – Max. peak inrush-current Ip (150 µs) | 400 A | 400 A | 400 A | 400 A | | | |
| – Max. peak inrush-current Ip (250 µs) | 320 A | 320 A | 320 A | 320 A | | | |
| – Max. peak inrush-current Ip (600 µs) | 200 A | 200 A | 200 A | 200 A | | | |
| Number of electronic ballasts (T5/T8, single element) | | | | | | | |
| – 18 W (ABB EVG 1x18 CF) | 23 | 23 | 23 | 23 | | | |
| – 24 W (ABB EVG-T5 1x24 CY) | 23 | 23 | 23 | 23 | | | |
| – 36 W (ABB EVG 1x36 CF) | 14 | 14 | 14 | 14 | | | |
| – 58 W (ABB EVG 1x58 CF) | 11 | 11 | 11 | 11 | | | |
| – 80 W (Helvar EL 1x80 SC) | 10 | 10 | 10 | 10 | | | |

Further technical specifications can be found in the corresponding product manuals at www.abb.com/knx

# Intelligent Building Solutions
# ABB i-bus® KNX – Room Automation – Room Controller Basis Devices



Configuration example
RC/A 8.1

## Room Controller

The Room Controller controls all the functions in the room as a central device. Due to its modular design, it can be adapted flexibly to the required functionality.
On-site installation enables short assembly and commissioning times. A structured cable entry creates clarity and flexibility for changes in function – both during planning and operation.

## Special features

- Height 50 mm: optimised for underfloor installation or suspended ceilings
- Room Controller counts as just one bus device
- Robust housing, IP 54 degree of protection
- Manual operation for immediate testing – even without bus voltage
- Comprehensive software functionality

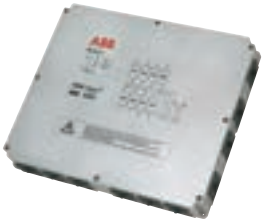


RC/A 4.2

## Room Controller, Basis Device for 4 Modules, SM

It accommodates up to 4 plug-in modules and controls their functions. The RC/A 4.2 communicates as a bus device. Any module type can be plugged into each module slot. A manual control for module function test is integrated. Dimensions: (H x W x D) 200 x 275 x 50.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | RC/A 4.2 | 2CDG110104R0011 | | 1 | 0.98 |



RC/A 8.2

## Room Controller, Basis Device for 8 Modules, SM

It accommodates up to 8 plug-in modules and controls their functions. Any module type can be plugged into each module slot. The inserted module is automatically detected. The manual operation facility enables an immediate function test even when bus voltage is not applied. Dimensions: (H x W x D) 270 x 316 x 50.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | RC/A 8.2 | 2CDG110106R0011 | | 1 | 1.695 |

Please note: With the new DALI Light Controller 4-fold, SM DLR/A 4.8.1.1 the DALI Lighting Control can be integrated in a decentralised KNX installation too!

# ABB i-bus® KNX – Room Automation – Room Controller Function Modules



BE/M 4.230.1

## Binary Input Modules, 4-fold

Each of the modules provides 4 inputs. There are 3 module types available for the connection of 115/230 V, 12/24 V (AC or DC) or floating contacts to cover all demands.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 230 V | – | BE/M 4.230.1 | 2CDG110005R0011 | | 1 | 0.13 |
| 12/24 V | – | BE/M 4.24.1 | 2CDG110006R0011 | | 1 | 0.13 |
| Contact scanning | – | BE/M 4.12.1 | 2CDG110007R0011 | | 1 | 0.13 |



SA/M 2.6.1

## Switch Actuator Module, 2-fold, 6 A

For switching loads up to 16 A at a maximum continuous current of 6 A.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SA/M 2.6.1 | 2CDG110002R0011 | | 1 | 0.17 |



SA/M 2.16.1

## Switch Actuator Module, 2-fold, 16 A, floating contacts

For switching two loads up to 16 A. The switched voltage is independent of the basic device and is connected directly to the module.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SA/M 2.16.1 | 2CDG110100R0011 | | 1 | 0.16 |



JA/M 2.230.1

## Shutter Actuator Modules, 2-fold

For controlling two independent blind or shutter drives. There are two module types available for 115/230 V AC or 24 V DC drives.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 230 V AC | – | JA/M 2.230.1 | 2CDG110003R0011 | | 1 | 0.17 |
| 24 V DC | – | JA/M 2.24.1 | 2CDG110004R0011 | | 1 | 0.17 |



SD/M 2.6.2

## Switch/Dim Actuator Module, 2-fold, 6 AX

It enables the switching and dimming of two groups of luminaries in conjunction with electronic ballasts via a 1…10 V control voltage. Enhanced swiching capacity.
(Replaces the SD/M 2.6.1).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SD/M 2.6.2 | 2CDG110107R0011 | | 1 | 0.17 |



LR/M 1.6.2

### Light Controller Module, 1-fold, 6 AX

Enables switching and dimming of a lighting group via 1…10 V control voltage. The device can be used for constant lighting control in conjunction with Light Sensor LF/U 2.1.
(Replaces the LR/M 1.6.1).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | LR/M 1.6.2 | 2CDG110108R0011 | | 1 | 0.13 |



UD/M 1.300.1

### Universal Dim Actuator Module, 1-fold, 300 VA

For dimming incandescent lamps, 230 V or low-voltage halogen lamps up to 300 W/VA. The automatic load detection detects the connected load and optimises the control. The minimum load is just 2 W.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | UD/M 1.300.1 | 2CDG110012R0011 | | 1 | 0.18 |



ES/M 2.230.1

### Electronic Switch Actuator Module, 2-fold

With 2 overload-proof outputs for noiseless control of heating systems and chilled ceilings via thermoelectric valve drives. Two module types for voltages from 115/230 V or 24 V (AC or DC) are available.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 115/230 V | – | ES/M 2.230.1 | 2CDG110013R0011 | | 1 | 0.15 |
| 24 V | – | ES/M 2.24.1 | 2CDG110014R0011 | | 1 | 0.15 |

# Intelligent Building Solutions
## ABB i-bus® KNX – Room Automation – Room Master



RM/S 1.1



RM/S 2.1



RM/S 3.1



RM/S 4.1

### Room Master

The Room Master is a KNX device with a combination of inputs and outputs. The quantities, technical data and the functions of these inputs and outputs are compiled, so that overall control of all the functions in rooms of a live-in character or apartments, are implemented via a device. Typical areas of application of the Room Master are hotel rooms, hospital rooms as well as apartments in institutions for residential care or in student residential homes. The Room Master with its compact design covers all the basic requirements for

- Lighting control
- Heating/Air conditioning
- Shading control (shutters, blinds or curtains - with the RM/S 2.1)
- Control of further loads via switched electrical sockets

Function extensions are possible at any time, e.g. devices for dimming via ABB i-bus® KNX.

### Overview of the inputs and outputs

| | RM/S 1.1 | RM/S 2.1 | RM/S 3.1 | RM/S 4.1 | Application possibilities |
|---|---|---|---|---|---|
| Binary inputs via contact scanning | 8 | 18 | 12 | 8 | For connection of switches or push-buttons (light on/off, shutter up/down,etc.) or sensors (window contacts, door contacts, water sensors, condensation water sensors, hotel acrd readers, etc.) |
| Outputs 20 A (16 AX) | 1 | 3 | 4 | – | Bathroom fan, switching of electrical sockets |
| Outputs 16 A (10 AX) | 2 | 1 | – | – | Auxiliary electrical heating of fan-coil units (at RM/S 1.1 and 2.1), lighting |
| Outputs 6 A | 3 | 12 | – | 8 | 3-speed fan control (at RM/S 1.1 and 2.1), lighting |
| Outputs 0.5 A electronic | 4 | 4 | – | – | Valve control (heating, cooling) |
| Outputs 6 A changeover contact | – | 1 | 4 (configurable as switch outputs too) | – | Blind or roller blind control |

- RM/S 1.1 and RM/S 2.1 are preprogrammed ex factory
- RM/S 3.1 and RM/S 4.1 are programmable with predefined and tested example projects (ETS 4) for different fields of application (office, schools, hotel rooms, ...)
- Commissioning of the preprogrammed devices on the construction site without notebook and ETS programming. With the electrical connection all room functions are available.
- Optional functional extensions via integration into KNX networks with ETS software.

**Further information about Room Master on www.abb.com/knx**

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Inputs, Outputs, Fan Coil | 8 | RM/S 1.1 | 2CDG110094R0011 | | 1 | 0.45 |
| Inputs, Outputs, Blind Control, Fan Coil | 12 | RM/S 2.1 | 2CDG110095R0011 | | 1 | 0.76 |
| Inputs, Outputs, Blind Control or Outputs | 12 | RM/S 3.1 | 2CDG110165R0011 | | 1 | 0.55 |
| Inputs, Outputs | 8 | RM/S 4.1 | 2CDG110170R0011 | | 1 | 0.3 |

# Intelligent Building Solutions
# ABB i-bus® KNX – Room Automation – Flush-mounted Combined Devices

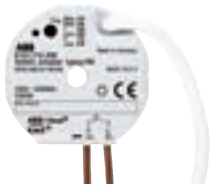


6173/11 U-500

## Flush-mounted combined actuator

For controlling blind or awning motors. For connecting thermoelectric actuating drives. With 3 inputs and 2 outputs. A first output (O1) allows the control of electrically-operated Venetian blinds, roller shutters, awnings, venting louvers or similar blinds for 230 V AC mains voltage. One additional electronic switching output (O2) allows silent control of electrothermal valve drives for heating or cooling systems. The bus can be connected via enclosed terminal block. Rated voltage: 230 V~, +10% / –10%, 50 Hz – 60 Hz. Input polling voltage 5V. O1 Rated current 3 A, cos φ 0.8; Output voltage: 250 V~. O2: Rated current: 25 mA, cos φ 1, Output voltage: 250 V~.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6173/11 U-500 | 6151-0-0249 | | 1 | 0.11 |



6151/11 U-500

## Switch actuator, 16 A

For switching 230 V~ consumers. Equipped with two extension inputs which depending on parameterization can act directly on the switching output or alternatively as binary inputs on the KNX bus. One Normally open contact, potential free; switching voltage: 230 V AC; 50/60 Hz; max. switching current: 16 A; switching capacity: up to 2.500 W depending on the consumer. Rated voltage: 230 V~, +10% / –10%, 50 Hz – 60 Hz. The bus can be connected via enclosed terminal block.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6151/11 U-500 | 6151-0-0245 | | 1 | 0.11 |



6152/11 U-500

## Blind actuator

For controlling blind or awning motors. With 3 inputs and 1 change-over output – normally open contact, potential-bound –. Rated voltage: 230 V~, +10% / – 10%, 50 Hz – 60 Hz. Input polling voltage: 5 V. Output rated current: 3 A, cos φ 0.8, Output voltage: 250 V~.
The bus can be connected via enclosed terminal block.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6152/11 U-500 | 6152-0-0040 | | 1 | 0.11 |



6164/11 U-500

## Heating actuator

1 electronic output (noiseless) For connecting thermoelectric actuating drives. The device possesses three additional input. Rated voltage: 230 V~, +10% /–10%, 50 Hz – 60 Hz. Input polling voltage 5 V. OutputRated current: 25 mA, cos φ 1. Output voltage: 250 V~. The bus can be connected via enclosed terminal block.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6164/11 U-500 | 6151-0-0247 | | 1 | 0.09 |

# Intelligent Building Solutions
## ABB i-bus® KNX – Inputs



## Wide-range inputs and a streamlined range – The new ABB i-bus® KNX Binary Inputs.

ABB i-bus® KNX Binary Inputs serve as an interface for operation of KNX systems via conventional push buttons and switches as well as for processing binary signals (signalling contacts).

In contrast to the existing solutions, where the input voltages of 24 V and 230 V required separate devices, the new Binary Inputs now feature **wide-range inputs**, which can process voltage signals ranging from 10 to 230 V AC/DC.
This offers the **installer significantly greater flexibility.**

In addition to two devices with 4 and 8 wide-range inputs, the new ABB i-bus® KNX Binary Input product range is rounded off by two devices with 4 and 8 inputs with scanning voltage. On these types, a pulsed scanning voltage is provided for connection of floating contacts from the device.

With an identical range of applications, the number of ABB i-bus® KNX Binary Inputs is now reduced from 6 types to 4.

All Binary Inputs feature **a high-quality membrane keypad for comfortable manual operation and display of the device functions.** Input states can be simulated at the device, so that the conventional push buttons, switches or floating contacts do not need to be connected for commissioning purposes. The device functions can be easily tested during commissioning in this way.

The Binary Inputs are powered via the KNX and do not require an additional power supply.

The software functionality of the Binary Inputs has also been extended. It is now possible to send **several switching telegrams with just a single push of a button.**
Especially useful, just as in the case of the Switch Actuators, it is also possible **to copy the channels of the device in the ETS**. The parameters and group addresses of a channel can be simply transferred to other channels in this way. This simplifies project engineering and helps reduce sources of error.





### Application
- Operation of KNX systems via conventional push buttons and switches
- Processing of binary signals (signalling contacts)

### Benefits
- Flexible application due to wide-range inputs
- Reduced stock requirement due to streamlined product range
- Simplified commissioning using the copy function

### Product
- BE/S 4.20.2.1 with 4 inputs for contact scanning and manual operation
- BE/S 4.230.2.1 with 4 wide-range inputs and manual operation
- BE/S 8.20.2.1 with 8 inputs for contact scanning and manual operation
- BE/S 8.230.2.1 with 8 wide-range inputs and manual operation

# Intelligent Building Solutions
# ABB i-bus® KNX – Inputs

## Binary Inputs Selection Table

| | BE/S 4.20.2.1 | BE/S 4.230.2.1 | BE/S 8.20.2.1 | BE/S 8.230.2.1 | US/U 2.2 | US/U 4.2 | US/U 12.2 |
|---|---|---|---|---|---|---|---|
| **General** | | | | | | | |
| Voltage range | – | 10…230 V | – | 10…230 V | – | – | – |
| Voltage type | – | AC/DC | – | AC/DC | – | – | – |
| Contact scanning | ■ | – | ■ | – | ■ | ■ | ■ |
| Inputs | 4 | 4 | 8 | 8 | 2 | 4 | 12 |
| Type of installation | MDRC | MDRC | MDRC | MDRC | FM | FM | FM |
| Module width (space unit) | 2 | 2 | 4 | 4 | – | – | – |
| **Switch sensor** | | | | | | | |
| Send switch value after any edge | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Send switch value after signal length and/or cyclically | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Send switch value 1 cyclically | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Send switch value 2 | ■ | ■ | ■ | ■ | | | |
| Send switch value 3 | ■ | ■ | ■ | ■ | | | |
| Difference between short and long operation | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Dim sensor** | | | | | | | |
| Start-stop dimming, step-by-step dimming | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| One-touch dimming | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Shutter Sensor** | | | | | | | |
| Shutter operation via a push button/switch | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Shutter operation via two push buttons/switches | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Value/Forced operation** | | | | | | | |
| 1 bit [0/1], 2 bit forced operation | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 1/2/4 bytes | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Signed | ■ | ■ | ■ | ■ | | | |
| 3 byte, time, weekday | ■ | ■ | ■ | ■ | | | |
| **Control scene** | | | | | | | |
| 8 bit scene | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Store scene | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Switching sequence** | | | | | | | |
| Several preset sequences can be set | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Link several push buttons in a switching sequence (actuating number) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Multiple operation** | | | | | | | |
| Telegram for long operation | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Multiple operation can be set | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| **Pulse counter** | | | | | | | |
| Adjustable data type and threshold values | ■ | ■ | ■ | ■ | ■ | ■ | |
| Temporary counter activation | ■ | ■ | ■ | ■ | ■ | ■ | |
| Send counter level cyclically | ■ | ■ | ■ | ■ | ■ | ■ | |
| **Manual operation** | | | | | | | |
| Energy-saving mode | ■ | ■ | ■ | ■ | | | |
| Enable/release manual operation | ■ | ■ | ■ | ■ | | | |
| Manual operating status | ■ | ■ | ■ | ■ | | | |
| Enable/release manual operation button per input | ■ | ■ | ■ | ■ | | | |
| Input LED can be inverted | ■ | ■ | ■ | ■ | | | |
| **Special functions** | | | | | | | |
| Copying and exchanging parameter settings | ■ | ■ | ■ | ■ | | | |
| Enable/disable input | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Adjustable debounce time and minimum signal time | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Limit the number of telegrams | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Device sends an “In operation” telegram” | ■ | ■ | ■ | ■ | | | |
| Heating valve control (electric relay) | | | | | ■ | ■ | ■ |
| Switch LEDs | | | | | ■ | ■ | ■ |

■ = Function is supported



BE/S 8.230.2.1

## Binary Inputs, 10 – 230 V AC/DC, MDRC

Detects AC/DC signals in the voltage range from 12...230 V. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold | 2 | BE/S 4.230.2.1 | 2CDG110091R0011 | | 1 | 0.12 |
| 8-fold | 4 | BE/S 8.230.2.1 | 2CDG110093R0011 | | 1 | 0.23 |



BE/S 4.20.2.1

## Binary Inputs, Contact Scanning, MDRC

Scans floating contacts with internally generated scanning voltage. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold | 2 | BE/S 4.20.2.1 | 2CDG110090R0011 | | 1 | 0.12 |
| 8-fold | 4 | BE/S 8.20.2.1 | 2CDG110092R0011 | | 1 | 0.23 |



US/U 4.2

## Universal Interface, FM

The universal interface has 2, 4 or 12 channels which can be parametrised as inputs or outputs with the ETS software. Conventional push-buttons, auxiliary contacts, LEDs and the electronic relay ER/U can be connected. The connecting cables can be extended up to 10 m. The contact scanning voltage and the supply voltage for the LEDs are made available by the device, the series resistors for the LEDs are integrated.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | – | US/U 2.2 | GHQ6310074R0111 | | 1 | 0.06 |
| 4-fold | – | US/U 4.2 | GHQ6310070R0111 | | 1 | 0.06 |
| 12-fold | – | US/U 12.2 | 2CDG110065R0011 | | 1 | 0.08 |



AE/S 4.1.1.3



AE/A 2.1

## Analogue Input, 4-fold, MDRC
## Analogue Input, 2-fold, SM

Used wherever analogue variables should be detected. The sophisticated housing concept of the surface mounted device and the new screw terminals of the MDRC device enable quick and clear wiring and improve the speed of connection of the sensors.
Comprehensive range of adjustment for many typical sensors (1 – 10 V, 0(4) – 20 mA, 0 – 1 V, PT 100, PT 1000,...) for detection of temperature, brightness, fill levels, etc.
For active sensors the auxiliary voltage is supplied by AE/S 4.1.1.3; in case of AE/A 2.1 a separate auxiliary voltage supply is required.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold, MDRC | 4 | AE/S 4.1.1.3 | 2CDG110190R0011 | | 1 | 0.27 |
| 2-fold, SM | – | AE/A 2.1 | 2CDG110086R0011 | | 1 | 0.30 |



WZ/S 1.3.1.2

## Weather Unit, MDRC and Weather Sensor, SM

It is used to detect and process weather data from weather sensor. It supplies data for twilight and brightness levels in 3 directions, rain, temperature, information on day/night, wind speed, date and time. An additional input for the connection of a PT - 1000 sensor is provided.
Four value memories which can store up to 24 values each are available. The Weather Unit WZ/S 1.3.1.2 can be operated either with the new Weather Sensor WES/A 3.1 or with the former sensor WES/A 2.1. The Weather Unit also provides the supply voltage for the connected sensor. The Weather Unit has to be supplied with a operating voltage of 85 to 265 V AC.
The Weather Unit supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.



WES/A 3.1

The Weather Sensor WES/A 3.1 detects twilight, brightness in three directions, rain, temperature, day/night, wind speed and the date and time using a GPS module. An additional heating transformer is not required. The new Weather Sensor WES/A 3.1 can be connected to the new Weather Unit WZ/S 1.3.1.2 or to the former Weather Unit WZ/S 1.1.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Weather Unit | 4 | WZ/S 1.3.1.2 | 2CDG110184R0011 | | | 0.20 |
| Weather Sensor | – | WES/A 3.1 | 2CDG120046R0011 | | | 0.17 |



WS/S 4.1.1.2

## Weather Station, 4-fold, MDRC

All common weather sensors for wind speed, wind direction, rain, amount of rain, brightness, light intensity, pyranometers, twilight, air pressure, humidity or temperature can be connected to the device. The power supply generates the 24 V DC voltage for external sensors (max. 300 mA). The device can be operated with 85 to 265 V AC, 50/60 Hz. The application software is configured for the detection of weather based data and enables quick sensor programming.  The Weather Station supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | WS/S 4.1.1.2 | 2CDG110191R0011 | | | 0.27 |

# Intelligent Building Solutions
# ABB i-bus® KNX – Outputs – A Complete Switch Actuator Range



Switch Actuators are responsible for reliable switching of different electrical loads in the KNX system.
Many different load situations are possible. ABB offers a suitable Switch Actuator for all application areas. The range has been rounded off with a new series. Now 16/20 AX C-Load Switch Actuators with and without a current detection feature are available; each featuring 2, 4, 8 or 12 outputs.

**In the following table, you will find an overview of the ABB i-bus® Switch Actuators and their type designations:**

| – | SA/S 2.6.2.1 | SA/S 2.10.2.1 | SA/S 2.16.2.1 | SA/S 2.16.5.1 | SA/S 2.16.6.1 |
|---|---|---|---|---|---|
| SA/S 4.6.1.1 | SA/S 4.6.2.1 | SA/S 4.10.2.1 | SA/S 4.16.2.1 | SA/S 4.16.5.1 | SA/S 4.16.6.1 |
| SA/S 8.6.1.1 | SA/S 8.6.2.1 | SA/S 8.10.2.1 | SA/S 8.16.2.1 | SA/S 8.16.5.1 | SA/S 8.16.6.1 |
| SA/S 12.6.1.1 | SA/S 12.6.2.1 | SA/S 12.10.2.1 | SA/S 12.16.2.1 | SA/S 12.16.5.1 | SA/S 12.16.6.1 |

**Note:**
The codes represent the following:

| | | |
|---|---|---|
| SA/S | | = **S**witch **A**ctuator, DIN Rail mounting |
| SA/S **x.** | x | = Number of outputs |
| SA/S 8.**y.** | y | = Rated current in Ampere A |
| SA/S 8.16.**1** | 1 | = Standard without manual operation |
| SA/S 8.16.**2** | 2 | = With manual operation |
| SA/S 8.16.**5** | 5 | = C-Load (200 µF) |
| SA/S 8.16.**6** | 6 | = C-Load with current detection |
| SA/S 8.16.6.**z** | z | = Version |

# Intelligent Building Solutions
## ABB i-bus® KNX – Outputs – Switching Capacity Overview

The following table provides and overview of the rated values, switching performance, lamp loads or the number of lamps, which can be connected to a contact:

| | SA/S 4.6.1.1<br>SA/S 8.6.1.1<br>SA/S 12.6.1.1 | SA/S 2.6.2.1<br>SA/S 4.6.2.1<br>SA/S 8.6.2.1<br>SA/S 12.6.2.1 | SA/S 2.10.2.1<br>SA/S 4.10.2.1<br>SA/S 8.10.2.1<br>SA/S 12.10.2.1 | SA/S 2.16.2.1<br>SA/S 4.16.2.1<br>SA/S 8.16.2.1<br>SA/S 12.16.2.1 | SA/S 2.16.5.1<br>SA/S 4.16.5.1<br>SA/S 8.16.5.1<br>SA/S 12.16.5.1 | SA/S 2.16.6.1<br>SA/S 4.16.6.1<br>SA/S 8.16.6.1<br>SA/S 12.16.6.1 |
|---|---|---|---|---|---|---|
| **$I_n$ rated current (A)** | 6 A | 6 AX | 10 AX | 16 A | 16/20 AX C-Load | 16/20 AX C-Load |
| **$U_n$ rated voltage (V)** | 250/440 V AC | 250/440 V AC | 250/440 V AC | 250/440 V AC | 250/440 V AC | 250/440 V AC |
| **AC1 operation (cos φ = 0.8) DIN EN 60947-4-1** | 6 A | 6 A | 10 A | 16 A | 20 A | 20 A |
| **AC3 operation (cos φ = 0.45) DIN EN 60947-4-1** | 6 A | 6 A | 8 A | –[4] | 16 A | 16 A |
| **C-Load switching capacity** | – | – | – | – | 20 A | 20 A |
| **Fluorescent lighting load AX to EN 60669-1** | 6 A (35 µF) [3] | 6 AX (140 µF) [3] | 10 AX (140 µF) [3] | 16 A (70 µF) [3] | 20 AX (200 µF) [3] | 20 AX (200 µF) [3] |
| **Minimum switching capacity** | 10 mA/12 V | 100 mA/12 V | 100 mA/12 V | 100 mA/12 V | 100 mA/12 V | 100 mA/12 V |
| **DC current switching capacity (resistive load)** | 6 A/24 V = | 6 A/24 V = | 10 A/24 V = | 16 A/24 V = | 20 A/24 V = | 20 A/24 V = |
| **Mechanical service life** | > $10^7$ | > 3 x $10^6$ | > 3 x $10^6$ | > 3 x $10^6$ | > $10^6$ | > $10^6$ |
| **Electronic endurance to IEC 60947-4-1:** | | | | | | |
| – Rated current AC1 (240 V/0.8) | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| – Rated current AC3 (240 V/0.45) | 15,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| – Rated current AC5a (240 V/0.45) | 15,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| **Incandescent lamp load at 230 V AC** | 1,200 W | 1,380 W | 2,500 W | 2,500 W | 3,680 W | 3,680 W |
| **Fluorescent lamp T5 / T8:** | | | | | | |
| – Uncorrected | 800 W | 1,380 W | 2,500 W | 2,500 W | 3,680 W | 3,680 W |
| – Parallel compensated | 300 W | 1,380 W | 1,500 W | 1,500 W | 2,500 W | 2,500 W |
| – DUO circuit | 350 W | 1,380 W | 1,500 W | 1,500 W | 3,680 W | 3,680 W |
| **Low-voltage halogen lamps:** | | | | | | |
| – Inductive transformer | 800 W | 1,200 W | 1,200 W | 1,200 W | 2,000 W | 2,000 W |
| – Electronic transformer | 1,000 W | 1,380 W | 1,500 W | 1,500 W | 2,500 W | 2,500 W |
| **Halogen lamp 230 V** | 1,000 W | 1,380 W | 2,500 W | 2,500 W | 3,680 W | 3,680 W |
| **Dulux lamps:** | | | | | | |
| – Uncorrected | 800 W | 1,100 W | 1,100 W | 1,100 W | 3,680 W | 3,680 W |
| – Parallel compensated | 800 W | 1,100 W | 1,100 W | 1,100 W | 3,000 W | 3,000 W |
| **Mercury-vapour lamps:** | | | | | | |
| – Uncorrected | 1,000 W | 1,380 W | 2,000 W | 2,000 W | 3,680 W | 3,680 W |
| – Parallel compensated | 800 W | 1,380 W | 2,000 W | 2,000 W | 3,000 W | 3,000 W |
| **Sodium-vapour lamps:** | | | | | | |
| – Uncorrected | 1,000 W | 1,380 W | 2,000 W | 2,000 W | 3,680 W | 3,680 W |
| – Parallel compensated | 800 W | 1,380 W | 2,000 W | 2,000 W | 3,000 W | 3,000 W |
| **Max. peak inrush-current Ip (150 µs)** | 200 A | 400 A | 400 A | 400 A | 600 A | 600 A |
| **Max. peak inrush-current Ip (250 µs)** | 160 A | 320 A | 320 A | 320 A | 480 A | 480 A |
| **Max. peak inrush-current Ip (600 µs)** | 100 A | 200 A | 200 A | 200 A | 300 A | 300 A |
| **Number of electronic ballasts (T5/T8, single element):** [2] | | | | | | |
| **18 W (ABB ballasts 1 x 18 SF)** | 10 ballasts | 23 ballasts | 23 ballasts | 23 ballasts | 26[1] ballasts | 26[1] ballasts |
| **24 W (ABB ballasts 1 x 24 CY)** | 10 ballasts | 23 ballasts | 23 ballasts | 23 ballasts | 26[1] ballasts | 26[1] ballasts |
| **36 W (ABB ballasts 1 x 36 CF)** | 7 ballasts | 14 ballasts | 14 ballasts | 14 ballasts | 22 ballasts | 22 ballasts |
| **58 W (ABB ballasts 1 x 58 CF)** | 5 ballasts | 11 ballasts | 11 ballasts | 11 ballasts | 12[1] ballasts | 12[1] ballasts |
| **80 W (Helvar EL 1 x 80 SC)** | 3 ballasts | 10 ballasts | 10 ballasts | 10 ballasts | 12[1] ballasts | 12[1] ballasts |

[1] The number of ballasts is limited by the protection with B16/B20 circuit-breakers.

[2] For multiple element lamps or other types, the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

[3] The maximum peak inrush current may not be exceeded.

[4] Not intended for AC3 operation, see Technical Data for maximum AC3 current.

# Intelligent Building Solutions
## ABB i-bus® KNX – Outputs – An Overview of all Software Functions

The following table provides an overview of the functions possible with the Switch Actuators and their application programs:

| | SA/S 4.6.1.1<br>SA/S 8.6.1.1<br>SA/S 12.6.1.1 | SA/S 2.6.2.1<br>SA/S 4.6.2.1<br>SA/S 8.6.2.1<br>SA/S 12.6.2.1 | SA/S 2.10.2.1<br>SA/S 4.10.2.1<br>SA/S 8.10.2.1<br>SA/S 12.10.2.1 | SA/S 2.16.2.1<br>SA/S 4.16.2.1<br>SA/S 8.16.2.1<br>SA/S 12.16.2.1 | SA/S 2.16.5.1<br>SA/S 4.16.5.1<br>SA/S 8.16.5.1<br>SA/S 12.16.5.1 | SA/S 2.16.6.1<br>SA/S 4.16.6.1<br>SA/S 8.16.6.1<br>SA/S 12.16.6.1 |
|---|---|---|---|---|---|---|
| Type of installation | MDRC | MDRC | MDRC | MDRC | MDRC | MDRC |
| Number of outputs | 4/8/12 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 |
| Module width (space unit) | 4/6/8 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 | 2/4/8/12 |
| Manual operation | – | ■ | ■ | ■ | ■ | ■ |
| Contact position display | – | ■ | ■ | ■ | ■ | ■ |
| $I_n$ rated current (A) | 6 A | 6 AX | 10 AX | 16 A | 16/20 AX C-Load | 16/20 AX C-Load |
| Current detection | – | – | – | – | – | ■ |
| **Switch function** | | | | | | |
| – ON/OFF delay | ■ | ■ | ■ | ■ | ■ | ■ |
| – Staircase light | ■ | ■ | ■ | ■ | ■ | ■ |
| – Warning before end of staircase lighting | ■ | ■ | ■ | ■ | ■ | ■ |
| – Staircase lighting time set via object | ■ | ■ | ■ | ■ | ■ | ■ |
| – Flashing | ■ | ■ | ■ | ■ | ■ | ■ |
| – Switch response can be set (N.O./N.C.) | ■ | ■ | ■ | ■ | ■ | ■ |
| – Thresholds | ■ | ■ | ■ | ■ | ■ | ■ |
| **Current detection** | – | – | – | – | – | ■ |
| – Threshold value monitoring | – | – | – | – | – | ■ |
| – Measured value detection | – | – | – | – | – | ■ |
| **Function Scene** | ■ | ■ | ■ | ■ | ■ | ■ |
| **Function Logic** | | | | | | |
| – Logic AND function | ■ | ■ | ■ | ■ | ■ | ■ |
| – Logic OR function | ■ | ■ | ■ | ■ | ■ | ■ |
| – Logic XOR function | ■ | ■ | ■ | ■ | ■ | ■ |
| – Gate function | ■ | ■ | ■ | ■ | ■ | ■ |
| **Priority object/forced operation** | ■ | ■ | ■ | ■ | ■ | ■ |
| **Heating/fan control** | | | | | | |
| – Switch ON/OFF (2 point control) | ■ | ■ | ■ | ■ | ■ | ■ |
| – Cyclical fault monitoring | ■ | ■ | ■ | ■ | ■ | ■ |
| – Automatic purging | ■ | ■ | ■ | ■ | ■ | ■ |
| Fan Coil control [1] | ■ | ■ | ■ | ■ | ■ | ■ |
| **Special functions** | | | | | | |
| – Default position on bus voltage failure/recovery | ■ | ■ | ■ | ■ | ■ | ■ |
| – Status messages | ■ | ■ | ■ | ■ | ■ | ■ |

[1] See special ABB i-bus® KNX devices of the HVAC area, e.g. Fan/Fan Coil actuator LFA/S or Fan Coil actuator FCA/S.
■ = possible functions



SA/S 8.6.1.1

## Switch Actuators, 6 A, MDRC

Using floating contacts it switches 4, 8 or 12 independent electrical loads. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads. Please note: Increased module width compared to previous generation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold | 4 | SA/S 4.6.1.1 | 2CDG110152R0011 | | 1 | 0.18 |
| 8-fold | 6 | SA/S 8.6.1.1 | 2CDG110153R0011 | | 1 | 0.27 |
| 12-fold | 8 | SA/S 12.6.1.1 | 2CDG110154R0011 | | 1 | 0.35 |



SA/S 8.6.2.1

## Switch Actuators, 6 A, MDRC, Manual Operation

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 2 | SA/S 2.6.2.1 | 2CDG110180R0011 | | 1 | 0.18 |
| 4-fold | 4 | SA/S 4.6.2.1 | 2CDG110181R0011 | | 1 | 0.29 |
| 8-fold | 8 | SA/S 8.6.2.1 | 2CDG110182R0011 | | 1 | 0.51 |
| 12-fold | 12 | SA/S 12.6.2.1 | 2CDG110183R0011 | | 1 | 0.74 |



SA/S 4.10.2.1

## Switch Actuators, 10 AX, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts.
Every output can be operated manually and features display of the switching state.
The 10AX-AC1 devices are especially suited for switching resistive, inductive and capacitive loads such as fluorescent lighting (AX) compliant to EN 60669.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 2 | SA/S 2.10.2.1 | 2CDG110155R0011 | | 1 | 0.18 |
| 4-fold | 4 | SA/S 4.10.2.1 | 2CDG110156R0011 | | 1 | 0.29 |
| 8-fold | 8 | SA/S 8.10.2.1 | 2CDG110157R0011 | | 1 | 0.51 |
| 12-fold | 12 | SA/S 12.10.2.1 | 2CDG110158R0011 | | 1 | 0.74 |



SA/S 8.16.2.1

## Switch Actuators, 16 AC1, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts.
Every output can be operated manually and features display of the switching state.
The 16A-AC1 devices are suited for switching resistive, inductive and capacitive loads.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 2 | SA/S 2.16.2.1 | 2CDG110159R0011 | | 1 | 0.18 |
| 4-fold | 4 | SA/S 4.16.2.1 | 2CDG110160R0011 | | 1 | 0.29 |
| 8-fold | 8 | SA/S 8.16.2.1 | 2CDG110161R0011 | | 1 | 0.51 |
| 12-fold | 12 | SA/S 12.16.2.1 | 2CDG110162R0011 | | 1 | 0.74 |



SA/S 12.16.5.1

## Switch Actuator, 16/20 AX, C-Load, MDRC

Uses floating contacts to switch independent electrical loads via ABB i-bus® KNX. Every output can be operated manually and features display of the switching state. The 16AX-AC3, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 2 | SA/S 2.16.5.1 | 2CDG110132R0011 | | 1 | 0.19 |
| 4-fold | 4 | SA/S 4.16.5.1 | 2CDG110133R0011 | | 1 | 0.31 |
| 8-fold | 8 | SA/S 8.16.5.1 | 2CDG110134R0011 | | 1 | 0.59 |
| 12-fold | 12 | SA/S 12.16.5.1 | 2CDG110137R0011 | | 1 | 0.85 |



SA/S 8.16.6.1

## Switch Actuator with Current Detection, 16/20 AX, C-Load

Switches with floating contacts, 2, 4, 8 or 12 independent electrical loads with high surge currents. The Switch Actuators feature a circuit for high precision current detection for each output that is used to monitor the connected circuits. Every output can be operated manually and features display of the switching state. The 16/20A, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 2 | SA/S 2.16.6.1 | 2CDG110112R0011 | | 1 | 0.21 |
| 4-fold | 4 | SA/S 4.16.6.1 | 2CDG110113R0011 | | 1 | 0.38 |
| 8-fold | 8 | SA/S 8.16.6.1 | 2CDG110114R0011 | | 1 | 0.69 |
| 12-fold | 12 | SA/S 12.16.6.1 | 2CDG110138R0011 | | 1 | 0.90 |



IO/S 4.6.1.1

## I/O Actuator, 6 A, MDRC

For the control of loads in residential areas, typically in hotel rooms and apartments. The I/O Actuators provide binary inputs for the connection of conventional push-buttons and outputs for switching loads. Inputs and outputs can be internally connected by ETS. By integrating the devices into KNX networks further functions can be realised: e.g. central control or room based emergency calls to a control centre.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold | 4 | IO/S 4.6.1.1 | 2CDG110168R0011 | | 1 | 0.17 |
| 8-fold | 8 | IO/S 8.6.1.1 | 2CDG110169R0011 | | 1 | 0.3 |



AA/S 4.1.2

## Analogue Actuator, 4-fold, MDRC
## Analogue Actuator, 2-fold, SM

NEW

The Analogue Actuators convert KNX telegrams in voltage or current signals. These analogue output signals are used to influence regulatory processes. For example, devices for heating, air conditioning or ventilation applications can be adjusted in their operation depending on the information, which are transmitted via the bus system. The Analogue Actuators are available in a 4-fold DIN rail version and a 2-fold device with surface mounting housing. The ABB i-bus Tool is supported for advanced diagnosis and improved commissioning.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold, MDRC | 4 | AA/S 4.1.2 | 2CDG110202R0011 | | 1 | 0,19 |
| 2-fold, SM | 4 | AA/A 2.1.2 | 2CDG110203R0011 | | 1 | 0,30 |





AA/S 4.1

## Analogue Actuator, 4-fold and
## Analogue Actuator Module, 4-fold, MDRC

To be discontinued

The device outputs receives telegrams as analogue signals via four analogue outputs, which can be used independently from one another as current or voltage outputs. With the analogue actuator module AAM/S, the number of analogue outputs can be increased to 8 outputs.
The devices requires an external 24 V power supply for operation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | AA/S 4.1 | 2CDG120005R0011 | | 1 | 0.21 |
| | 4 | AAM/S 4.1 | 2CDG120006R0011 | | 1 | 0.18 |

# Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL.
OVR SL is a very compact SPD, equipped with a patented thermal disconnector and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.
**www.abb.com/lowvoltage**





# Intelligent Building Solutions
## ABB i-bus® KNX – Shutters and Sun Protection

**Modern building installation enables a high degree of functionality and simultaneously complies with increased security requirements. Due to the structured installation of the electrical components, it is possible to carry out rapid planning, installation and setup as well as achieve cost benefits during operation.**

**Modern sun protection devices have a significant role, as they must fulfil many demands:**

- Anti-glare protection (e.g. PC workstations)
- Utilization of daylight by tracking the sun‘s position and directing available daylight
- Protecting furniture and carpets from fading
- Regulating the room temperature (overheating protection in summer; harvesting the available energy on cold days)
- Providing protection from people looking in from the outside
- Protection against intruders.

With the new Blind/Roller Shutter Actuators JRA/S, the complex requirements on a sustainable and energy efficient automatic sun protection control can be implemented in offices, residential and functional buildings via ABB i-bus® KNX.

**The Blind/Roller Shutter Actuators are ideal for the control of drives in the area of sun protection:**

- Blinds, exterior blinds, slat blinds and panel curtains
- Roller shutters, roller blinds, screens, vertical blinds
- Awnings, pleated blinds, pleated curtains, etc.

**Optimum room air quality via automatic ventilation**

The demands for the reduction of energy consumption often results in poor ventilation in today‘s heavily insulated buildings. The quality of the room air does not comply with the desired and required level.
Natural ventilation is often an effective and efficient method for exchanging the “used” room air and improving the air quality in the room. If the air quality in the room is monitored with sensors (temperature, humidity, $CO_2$ concentration), the ventilation flaps can be opened automatically and in good time ensuring that the air quality is kept in a comfortable range.

**Blind/Roller Shutter Actuators are ideal for control of ventilation elements such as**

- Ventilation flaps
- Roof hatches, skylights
- Windows, doors and gates











### Automatic travel detection

Travel times for the connected drives can be easily determined during operation with the automatic travel detection feature. It saves time during setup. Furthermore, compensation of age and weather-related length changes to blinds or roller shutters is assured. It facilitates precise positioning of the blinds/shutter when using sun position-dependent control.

### Diagnostics

Enhanced diagnostic messages can be issued with the new Blind/Roller Shutter Actuators. They are particularly useful during setup or in the event of faults. It is possible, for example, to detect and signal if the power supply to a drive is interrupted.

### Copy and exchange

This function allows parameter settings of an output to be copied or exchanged with other freely selectable outputs. This is possible within a device or in conjunction with several devices. Copy and exchange is useful particularly on projects, where all drives of a facade are controlled identically.
It shortens the setup process and reduces the possible sources of error with parameterization.

### Integration in the room temperature control

The intelligent and networked blind and roller shutter control plays an important role in the energy efficient usage of a building. The level of sunlight in the room and heating up due to the sun‘s energy can be controlled in conjunction with the room climate control. The new software function “overheat control” prevents unintentional overheating of a room. The blinds are closed in good time. The shutter control can be actively involved in the room temperature control – a requirement for implementing high-efficient buildings compliant to EN 15232.

The following table provides an overview of technical data and software functions for the shutter actuator range:

| | STANDARD | | | | SMI | |
|---|---|---|---|---|---|---|
| | JRA/S X.230.5.1 | JRA/S 4.24.5.1 | JRA/S X.230.2.1 | JRA/S X.230.1.1 | SJR/S 4.24.2.1 | JA/S 4.SMI.1M |
| **General** | | | | | | |
| Number of outputs | X = 2, 4, 8 | 4 | X = 2, 4, 8 | X = 2, 4, 8 | 4 x 4 SMI LoVo (broadcast) | 4 x 4 SMI (broadcast) |
| Nominal voltage | 230 V AC | 24 V DC | 230 V AC | 230 V AC | LoVo 24 V | 230 V |
| Auxiliary voltage 230 V | – | – | – | – | ■ | ■ |
| Type of installation | MDRC | MDRC | MDRC | MDRC | MDRC | MDRC |
| Module width (space unit) | 2-fold: 4<br>4-fold: 4<br>8-fold: 8 | 4 | 2-fold: 4<br>4-fold: 4<br>8-fold: 8 | 2-fold: 4<br>4-fold: 4<br>8-fold: 8 | 4 | 4 |
| **Manual functions** | | | | | | |
| Disable/enable man. operation and status man. operation | ■ | ■ | ■ | – | ■ | ■ |
| **Operating modes** | | | | | | |
| Control with slat adjustment (blinds, etc.) | ■ | ■ | ■ | ■ | ■ | ■ |
| Control without slat adjustment (roller shutters, awnings, etc.) | ■ | ■ | ■ | ■ | ■ | ■ |
| Ventilation flaps, switch mode including stair case lighting function | ■ | ■ | ■ | ■ | – | – |
| **General device functions** | | | | | | |
| Automatic travel detection | ■ | ■ | – | – | – | – |
| Time-delayed switching of drives | ■ | ■ | ■ | ■ | ■ | ■ |
| Sending and switching delay time | ■ | ■ | ■ | ■ | – | – |
| In operation function | ■ | ■ | ■ | ■ | – | – |
| Request status values | ■ | ■ | ■ | ■ | – | – |
| Extended setting options for drives and blind/shutter | ■ | ■ | ■ | ■ | ■ | ■ |
| **Direct functions** | | | | | | |
| UP/DOWN, STOP/Slat adjustment | ■ | ■ | ■ | ■ | ■ | ■ |
| Position height/slat 0…255 | ■ | ■ | ■ | ■ | ■ | ■ |
| Preset Move to position/Set position | ■ | ■ | ■ | ■ | ■ | ■ |
| Enable limitation | ■ | ■ | ■ | ■ | ■ | ■ |
| Trigger travel detection | ■ | ■ | – | – | – | – |
| Trigger reference movement | ■ | ■ | ■ | ■ | – | – |
| 8 bit scene | ■ | ■ | ■ | ■ | ■ | ■ |
| **Safety functions** | | | | | | |
| Wind, Rain, Frost alarm | ■ | ■ | ■ | ■ | ■ | ■ |
| Block | ■ | ■ | ■ | ■ | ■ | ■ |
| Forced operation (1-Bit and 2-Bit) | ■ | ■ | ■ | ■ | ■ | ■ |
| **Automatic functions** | | | | | | |
| Activation of automatic control | ■ | ■ | ■ | ■ | ■ | ■ |
| Position height/slat on sun | ■ | ■ | ■ | ■ | ■ | ■ |
| Presence | ■ | ■ | ■ | ■ | ■ | ■ |
| Heating/Cooling | ■ | ■ | ■ | ■ | ■ | ■ |
| Overheat control | ■ | ■ | ■ | ■ | – | – |
| Enable/block automatic | ■ | ■ | ■ | ■ | ■ | ■ |
| Enable/block direct control | ■ | ■ | ■ | ■ | ■ | ■ |
| **Status messages** | | | | | | |
| Status height/slat 0…255 | ■ | ■ | ■ | ■ | ■ | ■ |
| Status upper/lower end position | ■ | ■ | ■ | ■ | ■ | ■ |
| Status of operation | ■ | ■ | ■ | ■ | ■ | ■ |
| Status automatic control | ■ | ■ | ■ | ■ | ■ | ■ |
| Status information (2 byte) | ■ | ■ | ■ | ■ | – | – |
| Status SMI | – | – | – | – | ■ | ■ |
| Status of positions/limit position | – | – | – | – | ■ | ■ |
| Status auxiliary voltage | – | – | – | – | ■ | ■ |
| SMI diagnostic byte | – | – | – | – | ■ | ■ |
| **Sonstiges** | | | | | | |
| Extended settings for drives and blinds/shutters | ■ | ■ | ■ | ■ | – | – |
| Total turning of slats after move down command | ■ | ■ | ■ | ■ | – | – |
| Position of slat after arriving on lower end position | ■ | ■ | ■ | ■ | ■ | ■ |
| Control and diagnosis via i-bus Tool | ■ | ■ | ■ | ■ | – | – |



JRA/S 8.230.5.1

## Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 4 | JRA/S 2.230.5.1 | 2CDG110124R0011 | | 1 | 0.21 |
| 4-fold | 4 | JRA/S 4.230.5.1 | 2CDG110125R0011 | | 1 | 0.25 |
| 8-fold | 8 | JRA/S 8.230.5.1 | 2CDG110126R0011 | | 1 | 0.46 |



JRA/S 4.24.5.1

## Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 4-fold, 24 V DC, MDRC

For the control of up to 4 independent 24 V DC drives via ABB i-bus® KNX. The device is designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | JRA/S 4.24.5.1 | 2CDG110128R0011 | | 1 | 0.21 |



JRA/S 2.230.2.1

## Blind/Roller Shutter Actuator with Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 4 | JRA/S 2.230.2.1 | 2CDG110120R0011 | | 1 | 0.21 |
| 4-fold | 4 | JRA/S 4.230.2.1 | 2CDG110121R0011 | | 1 | 0.25 |
| 8-fold | 8 | JRA/S 8.230.2.1 | 2CDG110122R0011 | | 1 | 0.46 |



JRA/S 2.230.1.1

## Blind/Roller Shutter Actuator, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 4 | JRA/S 2.230.1.1 | 2CDG110129R0011 | | 1 | 0.21 |
| 4-fold | 4 | JRA/S 4.230.1.1 | 2CDG110130R0011 | | 1 | 0.25 |
| 8-fold | 8 | JRA/S 8.230.1.1 | 2CDG110131R0011 | | 1 | 0.46 |



JA/S 4.SMI.1M

## SMI Shutter Actuator with Manual Operation, 4-fold, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) drives (230 V) for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | JA/S 4.SMI.1M | 2CDG110028R0011 | | 1 | 0.25 |



SJR/S 4.24.2.1

## SMI Blind/Roller Shutter Actuator, 4-fold, LoVo, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) LoVo drives for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SJR/S4.24.2.1 | 2CDG110143R0011 | | 1 | 0.25 |



JSB/S 1.1

## Shutter Control Unit, MDRC

Controls shutter and blind actuators according to the position of the sun. The shutter control unit contains the functions of anti-glare protection and daylight redirection for up to 4 facades. Automatic shading can be implemented for every building and climatic control can be supported by the comprehensive range of parameter settings in the ETS.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | JSB/S 1.1 | GHQ6310084R0111 | | 1 | 0.12 |

# Intelligent Building Solutions
## ABB i-bus® KNX Illumination and Light Sensors – DALI

The new ABB i-bus® KNX DALI Gateway with emergency lighting function combines modern flexible lighting control in intelligent building control systems with DALI emergency lighting.

Up to 64 DALI devices can be flexibly installed via 16 lighting groups and controlled and monitored by KNX.

Normal DALI lighting and DALI emergency lighting can be combined as required.

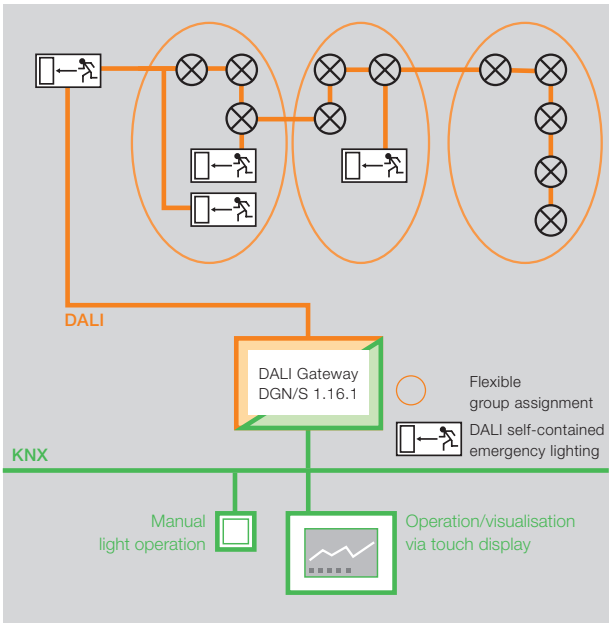
Furthermore, the DALI gateway with emergency lighting function supports the DALI standard EN 62386-202 that specifies DALI emergency lighting with individual batteries.

### DALI Gateway DGN/S 1.16.1

**Lighting control and emergency lighting functions combined**



Control via 16 lighting groups
Conventional lighting and individual emergency lighting battery combined

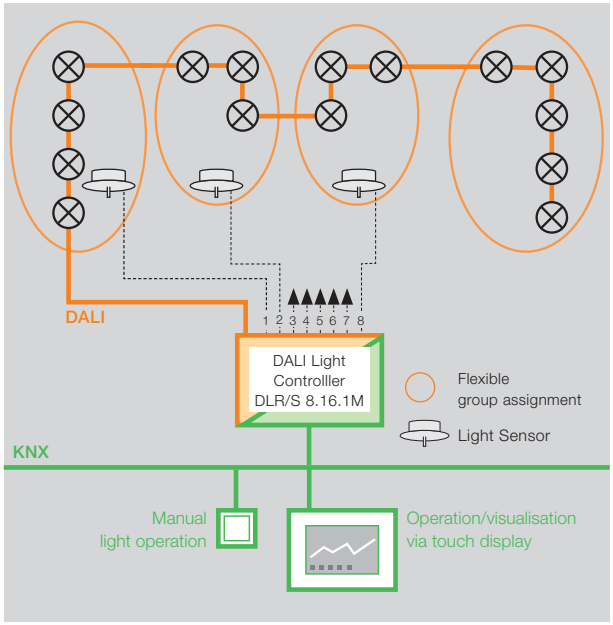



### DALI Light Controller DLR/S 8.16.1M

**Energy through constant lighting control**



Control via 16 lighting groups. Up to 8 lighting groups can be controlled with 8 light sensors. Master-slave, staircase light and Scene mode round off the functions.



### DALI Light Controller DLR/A 4.8.1.1
**Decentralized Constant Lighting Control**

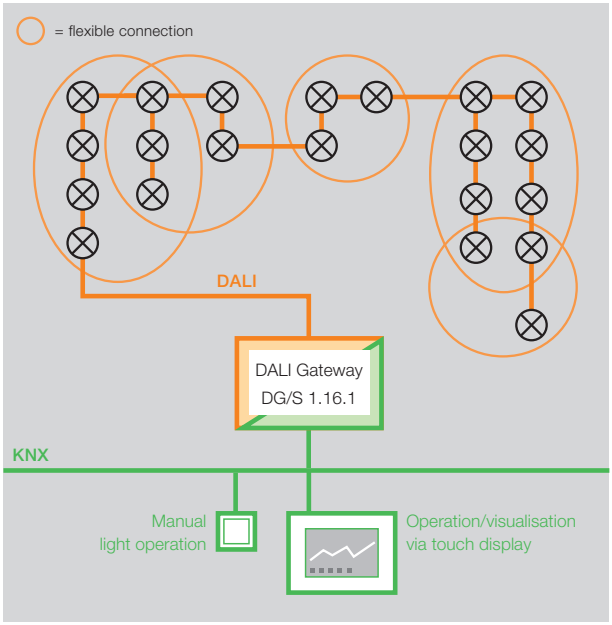


The new DALI Light Controller DLR/A 4.8.1.1 is a surface mounting device for switching and dimming of 8 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 4 - fold constant lighting control in connection with 4 Light Sensors LF/U 2.1. Furthermore staircase lighting and master / slave functions are provided. Fault feedback messages, e.g. concerning ballast or lamp failures, can be programmed and activated via KNX. The compact surface-mounted housing allows the decentralized installation in the underfloor or in false ceilings – optimal for the use with Room Controller RC/A.

### DALI Gateway DG/S 1.16.1
**Flexibility in a good light**



Large lighting groups can be controlled via flexible DALI groups. 1 x 64 DALI devices in 16 lighting groups. Overlapping groups are possible.

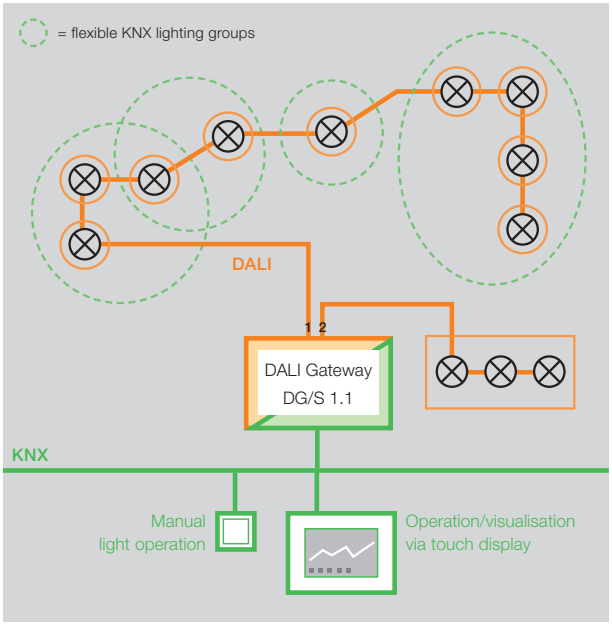


## DALI Gateway DG/S 1.1

**Individual lighting control**



Lighting groups are formed in KNX. Individual lamps are indicated on the KNX. 1 x 64 DALI devices in unlimited lighting groups.

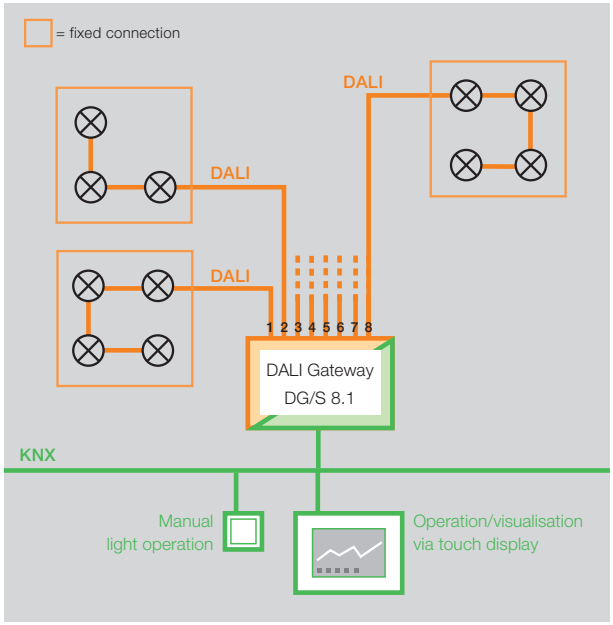



## DALI Gateway DG/S 8.1

**The proven technology**



Lighting groups are formed via “rigid” hardware wiring. Fast commissioning as no addressing is necessary. No readdressing when a ballast is exchanged. 8 x 16 DALI devices.





DG/S 8.1

## DALI Gateway, 8-fold, MDRC

For controlling up to 128 DALI devices. There are 8 separate, independent DALI outputs/channels available. Up to 16 DALI devices can be connected per channel. The DALI power supply is integrated in the gateway. The functions of switching, dimming, set values and fault indication for lamps and electronic ballasts are available for each output. It is possible to set the lamp burn-in time and 16 light scenes. Commissioning is simplified as no addressing or commissioning of the DALI devices is necessary.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | DG/S 8.1 | 2CDG110025R0011 | | 1 | 0.31 |



DG/S 1.1

## DALI Gateway, 1-fold, MDRC

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 2 x 64 DALI devices can be connected. 64 devices can be individually switched, dimmed and controlled with a brightness value. The second 64 devices operate in broadcast mode. The DALI functions such as scene control or fault indication can be programmed and activated via the KNX.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | DG/S 1.1 | 2CDG110026R0011 | | 1 | 0.22 |



DG/S 1.16.1

## DALI Gateway, 1-fold, Group Control, MDRC

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 16 DALI devices can be assigned to 16 lighting groups. Each group can be switched, dimmed and controlled with a brightness value. Scenes and sequencer functions are available for lighting effects. Fault feedback messages can be programmed and activated via KNX.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | DG/S 1.16.1 | 2CDG110103R0011 | | 1 | 0.22 |



DGN/S 1.16.1

## DALI-Gateway with Emergency Lighting Control, 1-fold, Group Control, MDRC

For controlling DALI devices via the ABB i-bus®. Up to 64 DALI Slaves can be connected. Self contained emergency converter acc. EN 62386-202 will be supported. Control and status feedback is carried out via KNX with 16 lighting groups. By means of KNX and emergency converter different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase- and sequencer- function are integrated. For an individual change of the DALI address or group assignment a separate DGS-Software-Tool is available.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | DGN/S 1.16.1 | 2CDG110142R0011 | | 1 | 0.22 |



DLR/S 8.16.1M

## DALI Light Controller, 8-fold, MDRC

For switching and dimming of 16 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 8-fold constant lighting control in connection with eight Light Sensors LF/U 2.1. Fault feedback messages can be programmed and activated via KNX. With comfortable manual operation and status display.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | DLR/S 8.16.1M | 2CDG110101R0011 | | 1 | 0.26 |



DLR/A 4.8.1.1

## DALI Light Controller, 4-fold, SM

Surface mounting device for switching and dimming of 16 independent groups of luminaries. Up to 64 DALI participants can be connected to one DALI control line. When combined with the light sensor LF/U 2.1 the device can be used as a 8-fold light controller for constant light control. Additionally a staircase and master/slave function is integrated. A great number of status feedback e.g. lamp and ballast fault can be transferred from DALI to KNX. With this functions the DALI light controller is a key factor in every energy efficient building automation. With his surface mounting housing it is possible to insert the device central in false ceiling or underfloor installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DLR/A 4.8.1.1 | 2CDG110172R0011 | | 1 | 0.66 |



LR/S 4.16.1

## Light Controller, 16 A, MDRC

The device enables the switching and dimming of 2 or 4 independent lighting circuits in conjunction with electronic ballasts. In combination with the Light Sensor LF/U 2.1, the device can be used for constant lighting control. 2 or 4 light sensors can be connected to the controller for precise detection of the lighting conditions.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 4 | LR/S 2.16.1 | 2CDG110087R0011 | | 1 | 0.25 |
| 4-fold | 6 | LR/S 4.16.1 | 2CDG110088R0011 | | 1 | 0.40 |



LF/U 2.1

## Light Sensor, FM

Used for implementing constant lighting control applications in conjunction with light controllers LR/S, LR/M, DLR/S 8.16.1M or DLR/A 4.8.1.1. The scope of delivery includes different optical rods, the connection terminals and the cover for discrete fitting in a room.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | LF/U 2.1 | 2CDG110089R0011 | | 1 | 0.07 |



SD/S 8.16.1

## Switch/Dim Actuator, 16 A, MDRC

Used for switching and dimming of 2, 4 or 8 independent groups of luminaries with electronic ballasts with 1 – 10 V control interfaces. On each channel the power supply of the ballasts is switched by a floating load relay (16 A – AC1). Every output can be operated manually and features display of the switching state. The device can assume a range of applications thanks to the programming options. The switching load is identical to the SA/S x.16.2.1 range (see capital 6).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 2-fold | 4 | SD/S 2.16.1 | 2CDG110079R0011 | | 1 | 0.21 |
| 4-fold | 6 | SD/S 4.16.1 | 2CDG110080R0011 | | 1 | 0.32 |
| 8-fold | 8 | SD/S 8.16.1 | 2CDG110081R0011 | | 1 | 0.56 |



UD/S 2.300.2

## Universal Dim Actuator, 2-fold, 300 VA, MDRC

For switching and dimming of incandescent lamps, 230 V halogen lamps or low-voltage halogen lamps which are powered by wound or electronic transformers (automatic load detection). Output power 2 x 300 VA or 1 x 500 VA up to 45 °C ambient temperature at a minimum load of just 2 W. Both outputs are independent of one another and can be supplied by different phases. Comprehensive application program with scene and time functions.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | UD/S 2.300.2 | 2CDG110074R0011 | | 1 | 0.24 |



6197/13-101-500

## Universal Dim Actuator, MDRC

Multi-channel universal dimming actuator for control of incandescent lamps, 230 V halogen lamps, lowvoltage halogen lamps with conventional or electronic transformers and dimmable energy-efficient lamps. Optimized for dimming of Philips retrofit LEDs (LEDi). Parallel connection of channels to increase load capacity via wire jumpers possible. Status/state indication of the outputs via LED. Local operation even without bus voltage or in non-programmed state possible.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold, 210 VA | 8 | 6197/12-101-500 | 6197-0-0036 | | 1 | 0.42 |
| 4-fold, 315 VA | 8 | 6197/13-101-500 | 6197-0-0037 | | 1 | 0.42 |
| 6-fold, 315 VA | 12 | 6197/14-101-500 | 6197-0-0038 | | 1 | 0.91 |
| 4-fold, 600 VA | 12 | 6197/15-101-500 | 6197-0-0039 | | 1 | 0.91 |
| 1-fold, 1.260 VA | 12 | 6197/52-101-500 | 6197-0-0040 | | 1 | |
| 1-fold, 2.400 VA | 12 | 6197/53-101-500 | 6197-0-0041 | | 1 | |



6155/30-500

## LED-Dimmer with constant curve, 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. Grouping of channels possible. With Master/Slave-function.
Connections: KNX-line: Bus connection terminal. Rated voltage: 12 - 24 V. Output voltage: 12 V. Secondary: 24 V. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC. Rated current: 10 A. Rated power: 240 W. Protection class (Device): IP 20.
Temperature range (Device): -5 °C to 45 °C.
Dimensions: (L x W x D): 33 mm x 53 mm x 95 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6155/30-500 | 6151-0-0254 | | 1 | |



6155/40-500

## LED-Dimmer with constant curve, with power supply. 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. With integrated power adapter. Grouping of channels possible. With Master/Slave-function.
Connections: KNX-line: Bus connection terminal. Rated voltage: 230 V~. Output voltage: 24 V~. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC.
Rated current: 4 A. Rated power: 100 W. Protection class (Device): IP 20.
Temperature range (Device): -5 °C to 45 °C.
Dimensions: (L x W x D): 45 mm x 53 mm x 226 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6155/40-500 | 6151-0-0256 | | 1 | |



HS/S 4.2.1

### Interface for Outside Light Sensor, MDRC

The device is used for the connection and evaluation of up to 3 Outside Light Sensors LFO/A 1.1. The Outside Light Sensors can be analysed individually or combined. Amongst others 10 logical switching channels for the evaluation of threshold values are provided. Threshold values can be adjusted directly on the device. The device can be used as a twilight switch (1 ... 100 lux) or as a light value switch (100 ... 20.000 lux). One Outside Light Sensor LFO/A 1.1 is supplied with the device.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | HS/S 4.2.1 | 2CDG120044R0011 | | 1 | 0.24 |



LFO/A 1.1

### Outside Light Sensor

Outside Light Sensor for the connection with the Interface HS/S 4.2.1.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | LFO/A 1.1 | 2CDG120045R0011 | | 1 | |



6131/20-24-500

## Busch-Presence detector mini KNX
## 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.
Seated persons Ø: 5 m, 6,5 m and 9 m.
Walking persons Ø: 6,5 m, 8 m and 10,5 m.
Visible height 16 mm. With 2 channels.
Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/20-24-500 | 6132-0-0342 | | 1 | 0.13 |
| aluminium silver | – | 6131/20-183-500 | 6132-0-0343 | | 1 | 0.13 |



6131/21-24-500

## Busch-Presence detector mini premium KNX
## 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.
Seated persons Ø: 5 m, 6,5 m and 9 m.
Walking persons Ø: 6,5 m, 8 m and 10,5 m.
Visible height 16 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections:
KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/21-24-500 | 6132-0-0344 | | 1 | 0.13 |
| aluminium silver | – | 6131/21-183-500 | 6132-0-0345 | | 1 | 0.13 |



6131/30-24-500

## Busch-Presence detector KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.
Seated persons Ø: 8 m, 10 m and 14 m.
Walking persons Ø: 10 m, 12 m and 16 m.
Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for bright-nessdependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/30-24-500 | 6132-0-0346 | | 1 | 0.15 |
| aluminium silver | – | 6131/30-183-500 | 6132-0-0347 | | 1 | 0.15 |



6131/31-24-500

## Busch-Presence detector premium KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.
Seated persons Ø: 8 m, 10 m and 14 m.
Walking persons Ø: 10 m, 12 m and 16 m.
Visible height 23 mm.With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dim-ming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal.
Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/31-24-500 | 6132-0-0348 | | 1 | 0.15 |
| aluminium silver | – | 6131/31-183-500 | 6132-0-0349 | | 1 | 0.15 |



6131/40-24-500

## Busch-Watchdog Sky KNX 24 meter

Detection range (for mounting height 6 m and 12 m): circular.
Walking persons Ø: 18 m, 24 m.
Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Use of the device as a movement detector. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. The programming button can be activated with the IR transmitter 6010-25 (-500). Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 4 m – 12 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/40-24-500 | 6132-0-0350 | | 1 | 0.15 |



6131/29-24-500

## Surface-mounting box

For Busch-Presence detector mini KNX. For installing a Busch-Presence detector mini KNX 6131/20-xxx(-500) or a Busch-Presence detector mini premium KNX 6131/21-xxx(-500).
Protection class (Device): IP 20. Dimensions: (L x W x D): 80 mm x 80 mm x 35 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/29-24-500 | 6132-0-0351 | | 1 | 0.08 |
| aluminium silver | – | 6131/29-183-500 | 6132-0-0352 | | 1 | 0.08 |



6131/39-24-500

## Surface-mounting box

For Busch-Presence detector KNX and Busch-Watchdog Sky KNX. For installing a Busch-Presence detector KNX 6131/30-xxx(-500) or a Busch-Presence detector premium KNX 6131/31-xxx(-500) or a Busch-Watchdog Sky KNX 6131/40-24(-500).
Protection class (Device): IP 20. Dimensions: (L x W x D): 91 mm x 91 mm x 33 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6131/39-24-500 | 6132-0-0353 | | 1 | 0.10 |
| aluminium silver | – | 6131/39-183-500 | 6132-0-0354 | | 1 | 0.10 |



6179/01-204-500

### Busch-Watchdog 220 MasterLINE KNX

Sensor angle: 220° Range: approx. 16 m. With 2 movement channels. With 1 twilight channel with 3 switching thresholds. No remote control possible via IR remote control KNX. With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1 – 1000 lux. Switch-off delay: approx. 10 sec to 1092 min.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | 6179/01-204-500 | 6132-0-0313 | | 1 | 0.56 |
| silver metallic | – | 6179/01-208-500 | 6132-0-0314 | | 1 | 0.56 |



6179/02-204-500

### Busch-Watchdog 220 MasterLINE KNX premium

Sensor angle: 220° Range: approx. 16 m. With 4 movement channels. With 1 twilight / brightness channel with 3 switching thresholds. With 1 temperature channel with three switching thresholds. With 7-channel IR remote control. Remote control possible via IR remote control KNX 6179 (included in scope of delivery). With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1 –1000 lux; Brightness sensor: approx. 1 – 80 klux; Temperature sensor: approx. – 25 to + 55 °C; Switch-off delay: approx. 10 sec to 1092 min.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | 6179/02-204-500 | 6132-0-0317 | | 1 | 0.56 |
| silver metallic | – | 6179/02-208-500 | 6132-0-0318 | | 1 | 0.56 |



6179-500

### IR Remote Control KNX

For Busch-Watchdog 220 MasterLINE KNX premium. The functions can be freely assigned. With coded transmission signal. Power supply: lithium button cell battery. Type CR2025 (included in delivery). Battery life: typically 2 years. Rated voltage: 3 V, Protection class (Device): IP 40, Temperature range (Device): 0 °C – 45 °C, Dimensions: (L x W x D): 86 mm x 40 mm x 7 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| grey / anthracite | – | 6179-500 | 6132-0-0320 | | 1 | 0.58 |

# Intelligent Building Solutions
## ABB i-bus® KNX – Heating and Cooling – Influencing Variables on Room Climate

### Influencing Variables on Room Temperature

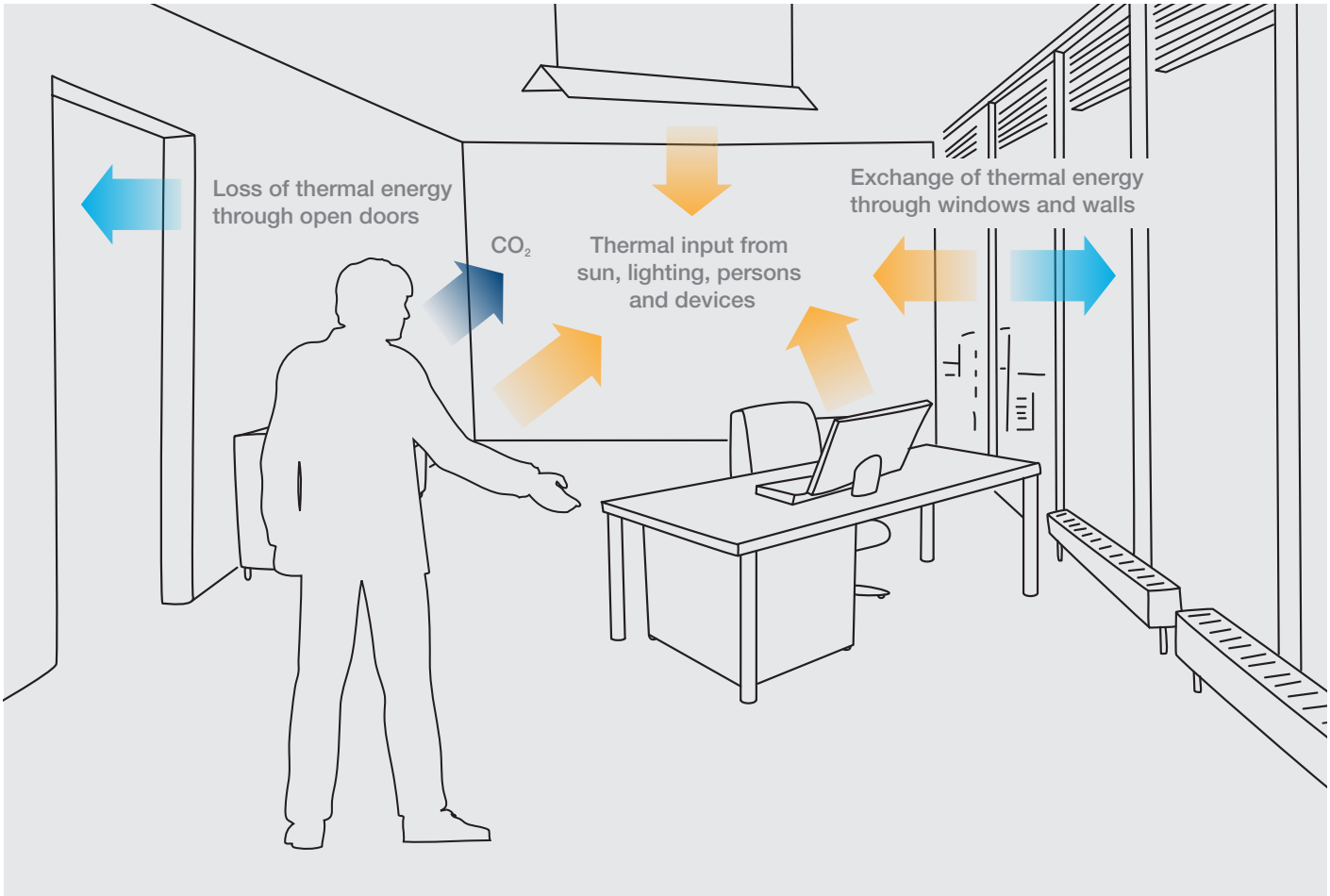
Internal and external factors have an effect on the thermal conditions in a room or a building. As an external factor the solar radiation is important for the indoor temperature – particularly with regard to modern architecture with glass fronts. Besides this, the room temperature is strongly affected by the exchange of thermal energy through windows and walls as well as the loss of thermal energy through open doors and windows.

Depending on the intensity, all this interactions influence also the energy efficiency of a building and have therefore to be optimised.
Internal thermal inputs from lighting, devices or persons have also an influence on the room climate. By planning a heating, ventilation or air conditioning system all this internal and external factors have to be considered.

### Influencing Variables on Air Quality

The indoor climate in living and working areas has a scientifically proven impact on health, job performance and well-being of people. A suitable indicator for determination of the room air quality is the $CO_2$ concentration. In addition the values for room temperature and air humidity must be controlled to meet the requirements for a comfortable room climate.

Studies have shown, that high $CO_2$ concentration in the air influences the well-being as well as the performance and learning ability of people. Besides the normal $CO_2$ concentration in the air, human respiration is an important factor increasing the $CO_2$ concentration in a room. Therefore it is important to measure the $CO_2$ concentration in rooms where many persons are present (schools, conference rooms, open-plan offices). Monitoring of thresholds enables fans to be switched via ABB i-bus KNX allowing automatic control of the $CO_2$ concentration and sufficient supply of fresh air.



# Intelligent Building Solutions
## ABB i-bus® KNX – Heating and Cooling – Room Thermostat FanCoil



## Living and working with a feeling of well-being.

And here the air in the room is one of the most important factors. Because the body takes an ideal temperature for granted and therefore easily reacts to changes. Heated or air-conditioned rooms can be optimally adjusted – to a consistently pleasant ambience.

## The KNX Fan Coil room temperature controller for stand-alone applications.

The Fan Coil room temperature controller with display is a room temperature controller for ventilator convectors or conventional systems for heating and cooling. This option offers complete air-conditioning for rooms. The temperature can be adjusted precisely for personal comfort. The fan speeds can be selected by push buttons. Even very large rooms can be heated or cooled to a comfortable temperature quickly – with additional air-conditioning units. The KNX Fan Coil room temperature controller can be operated individually. The bus coupler is integrated into the control element.

### Function

- Temperature sensor
- RTC setting
- Illuminated display
- Fan Coil operation for heating and cooling

### Features

- Very easy to operate with large, clear display
- Complete air conditioning
- Fan speeds can be manually selected
- Integrated bus coupler
- Surface-mounted, independent switching program
- Colours: studio white, aluminium silver



ES/S 4.1.2.1

## Electronic Switch Actuator, 4-fold, 1 A, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating and cooling systems. Each output (24...230 V AC/DC) is protected against short-circuit and overload. With manual operation and status display for each output.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold | 4 | ES/S 4.1.2.1 | 2CDG110058R0011 | | 1 | 0.25 |
| 8-fold | 8 | ES/S 8.1.2.1 | 2CDG110059R0011 | | 1 | 0.38 |



ER/U 1.1

## Electronic Relay, 1-fold, FM

The device combination with the Universal Interface US/U and a room thermostat noiselessly controls the heating system and chilled ceiling temperature via thermo-electric valve drives e.g. TSA/K, 24 V...230 V AC/DC).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | ER/U 1.1 | GHQ6310044R0111 | | 1 | 0.08 |
| 2-fold | – | US/U 2.2 | GHQ6310074R0111 | | 1 | 0.06 |
| 4-fold | – | US/U 4.2 | GHQ6310070R0111 | | 1 | 0.06 |



VAA/S 6.230.2.1

## Valve Drive Actuator, 230 V, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating or cooling systems. Each three outputs are protected against short-circuit and overload. With manual operation and status display.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 6-fold | 4 | VAA/S 6.230.2.1 | 2CDG110116R0011 | | 1 | 0.17 |
| 12-fold | 8 | VAA/S 12.230.2.1 | 2CDG110117R0011 | | 1 | 0.3 |



VAA/A 6.24.1

## Valve Drive Actuator, 6-fold, 24 V, SM

In conjunction with the thermostat it controls up to 13 thermoelectric valve drives (24 V), max. 4 per channel. The device is suitable for the installation in heating circuit distribution systems where the application of a triac ensures noiseless switching of the drives. Mains plug on the transformer (230 V) for ease of installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | VAA/A 6.24.1 | 2CDG120032R0011 | | 1 | 1.8 |



FCL/S 2.6.1.1

## Blower Actuator, 6 A, MDRC

to control blowers or fans with up to three fan speeds via step or changeover control. The FCL/S 1.6.1.1 have one fan output and one additional floating switch output. The FCL/S 2.6.1.1 feature two fan outputs plus two floating switch outputs. Alternatively the second fan output can be used as three switch outputs.
The fan speed can be directly choosen, increased and decreased as well as controlled by the control value of a closed-loop controller.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold | 4 | FCL/S 1.6.1.1 | 2CDG110163R0011 | | 1 | 0.18 |
| 2-fold | 6 | FCL/S 2.6.1.1 | 2CDG110164R0011 | | 1 | 0.26 |



FCA/S 1.1.2.2

## Fan Coil Actuator, PWM, MDRC

NEW

For the control of typical blower convectors via four electronic outputs for thermoelectric or motor-driven valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.1.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Without manual operation | 6 | FCA/S 1.1.1.2 | 2CDG110195R0011 | | 1 | 0.34 |
| With manual operation | 6 | FCA/S 1.1.2.2 | 2CDG110194R0011 | | 1 | 0.34 |



FCA/S 1.2.2.2

## Fan Coil Actuator, 0-10V, MDRC

NEW

For the control of typical blower convectors via two analogue outputs for 0...10V valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.2.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Without manual operation | 6 | FCA/S 1.2.1.2 | 2CDG110196R0011 | | 1 | 0.34 |
| With manual operation | 6 | FCA/S 1.2.2.2 | 2CDG110193R0011 | | 1 | 0.34 |



6138/11-84-500

## Room Thermostat Fan Coil with Display, SM

Sends control values for the room to the Fan Coil Actuators or devices with the respective outputs (e.g. Room Master). The intuitive control operation allows each user to individually set the room temperature and the fan speed. The large LC display can display the actual and target temperatures, the current operating mode as well as the fan speeds. **With integrated Bus Coupler.**

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpine white | – | 6138/11-84-500 | 6138-0-0003 | | 1 | 0.092 |
| aluminium silver | – | 6138/11-83-500 | 6138-0-0005 | | 1 | 0.092 |



FC/S 1.1

## Fan Coil Controller, MDRC

It controls motor-driven and thermoelectric valve drives as well as multi-speed fans. Control without further additional components can be undertaken in combination with the optional Temperature Sensor TS/K. There are two binary inputs available for 24 V AC signal contacts for window contact or dew point signals. A 230 V power supply is required.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 6 | FC/S 1.1 | 2CDG120001R0011 | | 1 | 0.5 |
| Temperature Sensor for FC/S 1.1 | – | TS/K 1.1 | 2CDG120002R0011 | | 1 | 0.055 |



LGS/A 1.1

## Air Quality Sensor, SM

Accurately measures the $CO_2$ concentration, humidity and temperature in a room.
Three independent thresholds can be set for the $CO_2$ concentration and the relative humidity in addition to a threshold for the temperature. Exceeding or underrunning the thresholds can trigger a response. Disable object for every threshold. Measured variables can be transmitted directly on the bus. Communication object “Ventilation” is used for RPM control or as a position indicatior for the ventilation flaps. Maintenance free sensor. The sensor is powered via the bus. **With integrated Bus Coupler.**

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | LGS/A 1.1 | 2CDG120038R0011 | | 1 | 0.136 |



ST/K 1.1

## Electromotor Valve Drive

The drive is a proportional valve drive for controlling heating valves and is mounted on thermostat valve bases. Valve Adapters VA10, VA78 for conventional valves are supplied. The control is carried out via a continuous KNX room thermostat. The actual valve position is indicated by 5 LEDs. The valve drive has two binary inputs for a presence contact and/or window contact and for further signal indication. **With integrated Bus Coupler.**

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | ST/K 1.1 | 2CDG120004R0011 | | 1 | 0.32 |



TSA/K 230.2

## Thermoelectric Valve Drives

For opening and closing valves in heating, ventilation and air-conditioning systems. Both variants (230 V and 24 V) feature a plug-in connection cable (1 m) and a splash-proof housing. The mounting on the valve is easily implemented using the Valve Adapter VA/Z xx.1.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 230 V | – | TSA/K 230.2 NEW | 2CDG120049R0011 | | 1 | 0.16 |
| 24 V | – | TSA/K 24.2 NEW | 2CDG120050R0011 | | 1 | 0.16 |
| Valve Adapter for valves from Dumser, Chronatherm, Vescal, KaMo | – | VA/Z 10.1 | 2CDG120009R0011 | | 1 | 0.06 |
| Valve Adapter for valves from Honeywell, Reich, Cazzaniga, Landis & Gyr. MNG | – | VA/Z 50.1 | 2CDG120010R0011 | | 1 | 0.05 |
| Valve Adapter for valves from Danfoss RA | – | VA/Z 78.1 | 2CDG120011R0011 | | 1 | 0.03 |
| Valve Adapter for valves from Heimeier, Herb, Onda, Schlösser (ab 93), Oventrop | – | VA/Z 80.1 | 2CDG120012R0011 | | 1 | 0.06 |



LM/S 1.1

## Logic Module, MDRC

Used to solve a varied range of project-specific control tasks and can implement 3 functions simultaneously. The following functions are available for selection: logic gate, filter, time delay, multiplier, min/max value detector, temperature comparator, toggle values, threshold detection, format converter, scenes, increment/decrement values, staircase lighting.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | LM/S 1.1 | GHQ6310080R0111 | | 1 | 0.1 |



ABL/S 2.1

## Application Unit, Logic, MDRC

Allows the compilation of complex logical functions by simply combining different logic elements and gates using a graphical user interface as an ETS plug-in and does not require additional software. 50 logical elements, 50 gates, 30 timer modules and 10 comparators are available.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | ABL/S 2.1 | 2CDG110073R0011 | | 1 | 0.12 |



ABZ/S 2.1

## Application Unit, Time, MDRC

It provides a yearly time clock program with 15 daily routines (800 switching events), a weekly schedule and allowance for 100 special days. Additionally, the unit can control up to 300 participants in 30 macro groups, that can be triggered using a single command. In this way, each time controlled switching event can cause a series of actions. The switching times can be modified with the free PZM software without using ETS. PZM Software and additional information on www.abb.com/knx.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | ABZ/S 2.1 | 2CDG110072R0011 | | 1 | 0.12 |





ABA/S 1.2.1

## Logic Controller

NEW

The device provides extensive logic functions. The logic is defined via a graphic editor integrated in the ETS. Up to 3000 logic gates are possible.
The generated logic can be tested by a simulation function. User-defined function blocks can be created and saved for taking them over into other projects.
The device requires an auxiliary voltage, either 24 V DC or Power over Ethernet (PoE). If timer functions are used the date and time has to be provided via KNX/TP.
Availability October 2016.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | ABA/S 1.2.1 | 2CDG110192R0011 | | 1 | |



FW/S 8.2.1

## Radio Time Switch , 8-channel, MDRC

The Radio Time Switch sends current time and date on the bus. The time can be optionally received via a DCF or GPS antenna. Furthermore the device can be used to easily adjust the time programs.
The device provides 8 channels. Every channel supplies an independent daily, time and/or yearly program. Additionally, special programs (e.g. for vacation or public holiday days) are possible.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 3 | FW/S 8.2.1 | 2CDG120039R0011 | | 1 | 0.33 |



FAD/A 1.1

## DCF Antenna for Radio Time Switch

For the connection to the Radio Tme Switch FW/S 8.2.1. The time signal from the DCF 77 transmitter can be received within a radius of approx. 1000 km around Frankfurt.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FAD/A 1.1 | 2CDG120040R0011 | | 1 | 0.17 |



FAG/A 1.1

## GPS Antenna for Radio Time Switch

For the connection to the Radio Time Switch FW/S 8.2.1. The device receives time and date via GPS signal which is available worldwide.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FAG/A 1.1 | 2CDG120041R0011 | | 1 | 0.21 |



PS/E 2.1

## Programming Set OBELISK top2 for Radio Time Switch

The programming set contains a CD ROM with the Obelisk top2 for the creation of switching programs for the Radio Time Switch FW/S 8.2.1, a memory card PK/E 2.1 for transferring switching programs to the Radio Time Switch and a USB programming adapter for the memory card.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | PS/E 2.1 | 2CDG120042R0011 | | 1 | 0.20 |



PK/E 2.1

## Memory Card OBELISK top2

The memory card can be used for transferring switching programs to Radio Time Switch.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | PK/E 2.1 | 2CDG120043R0011 | | 1 | 0.02 |



UK/S 32.2

## Universal I/O Concentrator, 32-fold, MDRC

Used to connect push buttons or signal lamps, e.g. to an operating/display tableau. It has 32 channels which can be freely parameterised as inputs/outputs using the ETS software. The device requires an external 12 or 24 V DC auxiliary power supply, (e. g. NT/S 24.800).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | UK/S 32.2 | 2CDG110071R0011 | | 1 | 0.18 |



MT 701.2, WS
with T-RAHM, WS

## Control and Display Tableau, LCD

For indication of switching status, fault reports and measurement values. Using the robust push buttons, electrical consumers can be manually switched, values can be set in addition to timer programs and light scenes. The alarms can also issue an acoustic warning. The FM wall box simplifies mounting.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | MT 701.2, WS | GHQ6050059R0005 | | 1 | 1.16 |
| silver | – | MT 701.2, SR | GHQ6050059R0006 | | 1 | 1.24 |
| Coverframe, white | – | T-RAHM, WS | GHQ6050059R0011 | | 1 | 0.16 |
| Coverframe, silver | – | T-RAHM, SR | GHQ6050059R0012 | | 1 | 0.17 |
| Wall box | – | UP-KAST 2 | GHQ6050059R0014 | | 1 | 0.44 |

# New DS202C.
# Protection with unrivalled compactness.

With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50% of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro *M* compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.
**www.abb.com**

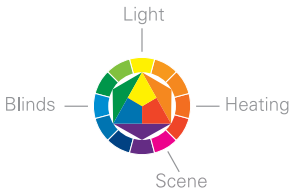




# Intelligent Building Solutions
## ABB i-bus® KNX – Visualisation, Display and Signalling – Busch-*ComfortTouch*®

The Busch-*ComfortTouch*® offers not only an extremely versatile range of switching and control functions for KNX systems, but also satisfies the highest design requirements. Its unique colour coding concept makes for particularly easy operation.

Busch-*ComfortTouch*® unites the functions of a home control system, an information and entertainment centre with the highest design requirements. You can use Busch-*ComfortTouch*® to switch lamps on and off, dim them, control blinds, room temperature or select scenes comprising a combination of the above-named functions – even via remote control. There is also an integrated audio and video player. These functions are not only of interest for private households – the system is often used in doctor's surgeries, offices, restaurants or stores to provide attractive lighting, soft background music or comfortable room climates. A presence simulation function and alarm message display provide added security. It is also possible to display images from surveillance cameras. The system can be connected to the Internet, enabling you to call up e-mails, the latest stock market news, the weather forecast or traffic information. Operation is simple and easy via touch screen. A menu created individually for the user with clearly assigned buttons and a unique colour coding concept allow simple and intuitive operation.

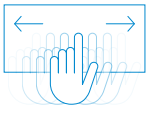



Simplicity and user-friendliness are always the top priorities for operation. Busch-Jaeger has developed a unique colour coding concept for the user interface of its intelligent home control system. Each comfort area is assigned a specific colour. Yellow stands for lighting, blue for the blind control unit, magenta for light scenes and orange for the heating control unit. These colours are also used in the menus on the display.

01



reddot design award
winner 2013



01 Busch-*ComfortTouch*® 12.1 Glass black

02 Busch-*ComfortTouch*® 9 Glass black

03 Busch-*ComfortTouch*® 9 White glass

04 Busch-*ComfortTouch*® 12.1 Glass black

05 Busch-*ComfortTouch*® 12.1 White glass

02



03



04



05



The system is controlled via the Busch-*ComfortTouch*® – it couldn't be easier. Buttons with text and symbols allow intuitive operation. Just a touch of the finger, and you can call up the MP3-player and play individual titles or playlists. And the volume is regulated via the panel, too. The ideal solution, not only for homes – the system is, for example, popular in restaurants. No more CDs lying around, no more finding space for a conventional hifi centre. The system can also be used to call up light scenes for various situations, from a cosy dinner at home to night-time lighting for store windows, at the press of a button or via a time-controlled function. Another useful feature is the handy memo field allowing you to write text by hand - use it, for example to write a shopping list or for leaving messages for others. Colour pictures from surveillance cameras on stairways or outside the building can be called up on the display, offering added security. This allows you to keep an eye on the building at all times – handy, for example, for checking the surrounding area before opening the door for customers in the morning or when the doorbell rings.



Media player



Video surveillance



Door communication



Dashboard



Remote control by tablets (APP)

reddot design award
winner 2013

iOS

Busch-ComfortTouch®
controllable via app

11



8136/09-811-500

### Busch-ComfortTouch® 9"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house With a closed capacitative glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 23 cm (9“) Touch-display with 800 x 480 pixel Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white glass | – | 8136/09-811-500 | 8136-0-0024 | | 1 | |
| black | – | 8136/09-825-500 | 8136-0-0026 | | 1 | |



8136/12-811-500

### Busch-ComfortTouch® 12.1"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house With a closed capacitative glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 31 cm (12.1“) touchdisplay with 1280 x 800 pixel. Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white glass | – | 8136/12-811-500 | 8136-0-0028 | | 1 | |
| black | – | 8136/12-825-500 | 8136-0-0030 | | 1 | |





6186/01 UP-500

### Power adapter module ABB i-bus® KNX

Power adapter for the power supply of Comfort-Touch 8136/09-… and 8136/12-…. With integrated KNX bus coupler for the establishment of the local bus connection to the ABB i-bus® KNX. With integrated audio outputs (LineOut). Rated voltage: 110 V~ – 230 V~, +10% / –10%. Rated frequency: 50 Hz – 60 Hz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6186/01 UP-500 | 6186-0-0023 | | 1 | |



8136/01 UP-500

## Flush-mounted installation box

For flush-mounted und hollow-wall installation of the Busch-ComfortTouch® 8136/09-..., 8136/12-... or the SMARTtouch. Windproof.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 8136/01 UP-500 | 8136-0-0032 | | 1 | |



6136/100 C-102-500

## Controlpanel SMARTtouch

The SMARTtouch (210 functions) offers a colour touch display. The panels clearly display switch states, error messages and measured values, and allow comfortable operation and setting of timing programs and light scenes. Acoustic warnings or alarm functions can be programmed. The integrated room thermostat can be integrated into room climate control. Commissioning is via the bus or multimedia card/SD card. For flush mounting in walls and hollow panels the wall box 6136/UP can be used.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| SMARTtouch, colour (210 functions) | – | 6136/100 C-102-500 | 6136-0-0185 | | 1 | |
| Bang & Olufsen, colour (210 functions) | – | 6136/100 CB-102 | 6136-0-0186 | | 1 | |



6136/15-500

## Design Frame for SMARTtouch

Design frame made of real metal for 6136/100C xxx, 6136/100CB xxx, 6936/100C xxx, 6936/100CB xxx. Real metals: Dark glass with flap in chrome, dark glass with flap in aluminium, white glass satin finish with flap in aluminium.
Dimensions (H x W x D): 184.6 mm x 218 mm x 9 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Dark glass with flap in chrome | – | 6136/10-500 | 6136-0-0139 | | 1 | |
| Dark glass with flap in aluminium | – | 6136/11-500 | 6136-0-0141 | | 1 | |
| White glass, satin finish with flap in aluminium | – | 6136/15-500 | 6136-0-0196 | | 1 | |



6136/UP

## Flush Mounted Wall Box for Busch-Controlpanel

To be discontinued

For flush mounting and hollow panel mounting of the Room and Control Panels.
Dimensions (H x W x D): 163.5 mm x 199 mm x 60 mm. Mounting depth: 60 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6136/UP | 6136-0-0124 | | 1 | |

# Intelligent Building Solutions
## ABB i-bus® KNX – The Busch-ControlTouch®



6136/APP-500

Freely programmable IP-/KNX gateway as multi-room app control for the KNX system.
MDRC devices with associated IOS and Android apps.
Easy control using intuitive navigation concept.
Representation of individual operating pages with list view.
Complete web-based commissioning.
Home automation, switching, dimming, blind, RTC control, scene/sequences, timing, Philips Hue.
Entertainment: multimedia integration via UPnP.
Infotainment: monitoring of usage data for up to 3 years.
Safety: video surveillance with IP cameras, message function via push messages or e-mail.
Time programs and scenes can be created by the end customer.
Access via KNXnet/IP tunnelling.
Script editor for logic functions.
Compatible with ABB i-bus® KNX
Control with smartphones and tablets via the ControlTouch app (Apple iOS /Google Android).
External power supply: 5-36 VDC (SELV).
Control element: freely programmable touch surfaces,
Rated voltage: 5 V- - 36 V-, Bus voltage: 24 V-,
Protection class (Device): IP 20, Temperature range (Device): 0 °C to 70 °C,
Dimensions: (L x W x D): 90 mm x 72 mm x 60 mm, Module width: 4 MW, Position for installation: Horizontal

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Busch-ControlTouch® KNX IP gateway | 4 | 6136/APP-500 | 6136-0-0202 | | 1 | |

# Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL.
OVR SL is a very compact SPD, equipped with a patented thermal disconnector and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.
**www.abb.com/lowvoltage**





# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Unique diversity of the range

01



02



03



04



05



06



# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Unique diversity of the range

07



08



09



10



11



| | |
|---|---|
| 01 | **carat®** |
| 02 | ***pure stainless steel*** |
| 03 | **solo®** |
| 04 | **Busch-*axcent*®** |
| 05 | **future® linear** |
| 06 | **Millenium*** |
| 07 | **Zenit for VDE markets** |
| 08 | **Zenit for NEMA markets** |
| 09 | **Busch-triton®** |
| 10 | **Busch-*priOn*®** |
| 11 | **Bus Coupling Unit – for conventional Busch-Jaeger series**** |

Further information regarding the ABB switch ranges are available on http://new.abb.com/low-voltage/products/residential-products/switch-ranges

* Millenium and Zenit series are only available in selected markets.

** Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Functional Overview

| Program | Standard control elements, bus coupler included with package | Multifunction control elements, suitable for KNX bus coupler | | | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | 6125/01 1gang<br>6126/01 2gang<br>6127/01 4gang | 6125/02 1/2gang<br>6126/02 2/4gang<br>6127/02 4/8gang | 6129/01 3/6gang with IR | 6108/18 | 6128/28 |
| **KNX function** | | | | | |
| Switching, rocker switch total | ● | ● | ● | – | ● |
| Switching, rocker switch left/right | – | ● | ● | – | ● |
| Dimming, rocker switch total | ● | ● | ● | – | ● |
| Dimming, switch rocker left/right | – | ● | ● | – | ● |
| Blind switch rocker total | ● | ● | ● | – | ● |
| Venetian blind switch rocker total left/right | – | ● | ● | – | ● |
| Short-long operation, switch rocker left/right | – | ● | ● | – | ● |
| Value sender rocker switch total | ● | ● | ● | – | ● |
| Value sender switch rocker left/right | – | ● | ● | – | ● |
| Value dimming sensor, switch rocker total | – | ● | ● | – | ● |
| Red/green LED status illumination (red/green/off) | Two LEDs per switch rocker | – | – | – | – |
| RGB LED function illumination + status illumination | – | Two LEDs per switch rocker | Two LEDs per switch rocker | – | Two LEDs per switch rocker |
| Setting the RTC operating mode | – | ● | ● | – | ● |
| Value sender, 2 objects, switch rocker left/right | ● | ● | ● | – | ● |
| Light scene extension unit with light scene memory function | ● | ● | ● | – | ● |
| Level switch, switch rocker total | – | ● | ● | – | ● |
| Level switch, switch rocker total left/right | – | ● | ● | – | ● |
| Multiple operation, rocker switch left/right | – | ● | ● | – | ● |
| IR remote control channels (up to 5 channels) | – | – | ● | – | – |
| | | | | | |
| **Room temperature controller only** | | | | | |
| Temperature reading | – | – | – | ● | ● |
| Master/Slave configuration | | – | – | ● | ● |
| RTC settings | – | – | – | ● | ● |
| Base-load operation | | – | – | ● | ● |
| Illuminated display | – | – | – | ● | ● |
| Fan Coil operation for heating and cooling | – | – | – | ● | ● |
| | | | | | |
| Logic function (including light scenes) | – | ● | ● | – | ● |
| | | | | | |
| Busch-Watchdog 4 channels | – | – | – | – | – |
| | | | | | |
| **Design series** | | | | | |
| Reflex SI | – | – | – | ● | – |
| Busch Duro 2000® SI | – | – | – | ● | – |
| future®linear | ● | ● | ● | ● | ● |
| alpha exclusive / nea | – | – | – | – | – |
| Busch-axcent® | ● | ● | ● | ● | ● |
| solo® | ● | ● | ● | ● | ● |
| impuls | – | – | – | – | – |
| pure stainless steel | ● | ● | ● | ● | ● |
| carat® | ● | ● | ● | ● | ● |
| ocean® | – | – | – | – | – |
| All Weather 44® | – | – | – | – | – |
| Busch-priOn® | – | – | – | – | – |
| Busch-triton® | – | – | – | – | – |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Functional Overview

| | 6120/12-101 and 6120/13 | | FM push-button coupling unit with integrated bus coupler | | | |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | 6122/10 Standard | 6122/02 Comfort | 6108/06 2gang | 6108/07 4gang | 6108/06-AP 2gang | 6108/07-AP 4gang |
| | | | | | | |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | – | – | 1 LED | – |
| | – | – | One LED per switch rocker | One LED per switch rocker | – | – |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | – | – |
| | – | – | – | – | – | – |
| | | | | | | |
| | – | – | ● | ● | – | – |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |
| | | | | | | |
| | ● | ● | – | – | – | – |
| | | | | | | |
| | ● | ● | – | – | – | – |
| | | | | | | |
| | | | | | | |
| | – | – | ● | ● | ● | ● |
| | – | – | ● | ● | ● | ● |
| | ● | ● | – | – | ● | ● |
| | – | – | – | – | ● | ● |
| | ● | ● | ● | ● | ● | ● |
| | ● | ● | ● | ● | ● | ● |
| | – | – | – | – | – | – |
| | ● | ● | ● | ● | ● | ● |
| | ● | ● | ● | ● | ● | ● |
| | – | – | – | – | ● | ● |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |
| | – | – | – | – | – | – |

11

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Functional Overview

| Program | Busch-triton® (next generation) Monoblock | | Busch-priOn® suitable for KNX bus coupler | |
|---|---|---|---|---|
| |  |  |  |  |
| | 6320/10 1/2gang<br>6320/30 3/6gang<br>6320/50 5/10gang | 6320/38 3/6gang with RTC<br>6320/58 5/10gang with RTC | 6340-xx-101 1/2gang | 6341-xx-101 rotary-control element |
| **KNX function** | | | | |
| Switching, rocker switch total | ● | ● | ● | – |
| Switching, rocker switch left/right | ● | ● | ● | ● |
| Dimming, rocker switch total | ● | ● | ● | – |
| Dimming, rocker switch left/right | ● | ● | ● | – |
| Blind switch rocker total | ● | ● | ● | – |
| Blind switch rocker total left/right | ● | ● | ● | ● |
| Short-long operation, switch rocker left/right | ● | ● | ● | – |
| Value sender rocker switch total | ● | ● | ● | – |
| Value sender switch rocker left/right | ● | ● | ● | – |
| Value dimming sensor, switch rocker total | ● | ● | ● | ● |
| Red/green LED status illumination (red/green/off) | 1 LED per switch rocker | 1 LED per switch rocker | – | – |
| RGB LED function illumination + status illumination | – | – | 1 LED per switch rocker | 1 LED per button |
| Setting the RTC operating mode | ● | ● | ● | – |
| Value sender, 2 objects, rocker switch left/right | ● | ● | ● | – |
| Light scene extension unit with light scene memory function | ● | ● | ● | – |
| Level switch, switch rocker total | ● | ● | ● | – |
| Level switch, switch rocker total left/right | ● | ● | ● | – |
| Multiple operation, rocker switch left/right | - | – | ● | – |
| IR remote control channels (up to 13 channels) | ● | ● | – | – |
| Light scene unit (8 scenes for up to 8 actuators) | ● | ● | – | – |
| Light scene unit (10 scenes for up to 10 actuators) | - | – | – | – |
| Programmable shift key | ● | ● | – | – |
| Proximity function | – | – | – | – |
| | | | | |
| **Room temperature controller only** | | | | |
| Temperature reading | – | ● | – | – |
| Master/Slave configuration | – | – | – | – |
| RTC settings | – | ● | – | – |
| Base-load operation | – | – | – | – |
| Illuminated display | – | ● | – | – |
| Fan Coil operation for heating and cooling | – | ● | – | – |
| | | | | |
| Media box/CD/DVD/Radio | – | – | – | – |
| Short-time timer | – | – | – | – |
| Weekly timer | – | – | – | – |
| Alarm clock | – | – | – | – |
| Messages | – | – | – | – |
| Screen saver | – | – | – | – |
| Display text/value | – | – | – | – |
| Device lock | – | – | – | – |
| | | | | |
| Logic function (including light scenes) | – | – | ● | ● |
| | | | | |
| Busch-Watchdog 4 channels | – | – | – | – |

# Intelligent Building Solutions
# ABB i-bus® KNX – Operation – Functional Overview

## 6120/12-101 or 6120/13 (depending on the specific combination)

| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| | 6342-xx-101 3/6gang | 6344-xx-101 8.89 cm (3.5") TFT colour display with rotary control element | 6344-xx-101 | 6351/08-825-500 end strip top with information display, room temperature controller, IR receiver and proximity sensor + 6342-xx-101 3/6gang + optionally 6341-xx-101 rotary control element | 6350-825-101 end strip top with IR receiver and proximity sensor | 6352-xx-101 end strip bottom with temperature sensor |
| | ● | – | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | – | – | – | – | – | – |
| | 1 LED per switch rocker | – | – | 1 LED per switch rocker | – | – |
| | ● | ● | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | ● | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | ● | – | – | ● | – | – |
| | – | – | – | ● | ● | – |
| | – | – | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | – | – | – | – | – |
| | – | – | – | ● | ● | – |
| | – | – | – | – | – | ● |
| | – | ● | – | ● | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | – | – | – |
| | – | ● | – | ● | – | – |
| | – | ● | – | – | – | – |
| | ● | ● | ● | ● | – | – |
| | – | – | ● | – | – | – |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Functional Overview

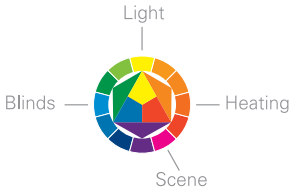
| Program | Millenium | | | | | |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | 6125/20-500<br>1/2gang | 6126/20-500<br>2/4gang | 6129/20-500<br>3/6gang | 6129/21-500<br>3/6gang with IR | 6122/20-500 | 6124/08-981-500 |
| **KNX function** | | | | | | |
| Switching, button pair | ● | ● | ● | ● | – | – |
| Switching, button upper/lower | ● | ● | ● | ● | – | – |
| Dimming, button pair | ● | ● | ● | ● | – | – |
| Dimming, button upper/lower | ● | ● | ● | ● | – | – |
| Blind, button pair | ● | ● | ● | ● | – | – |
| Blind, button upper/lower | ● | ● | ● | ● | – | – |
| Short-long operation,button upper/lower | ● | ● | ● | ● | – | – |
| Value transmitter, button pair | ● | ● | ● | ● | – | – |
| Value transmitter, button upper/lower | ● | ● | ● | ● | – | – |
| Value dimming sensor, button pair | ● | ● | ● | ● | – | – |
| Value dimming sensor, upper/lower | ● | ● | ● | ● | – | – |
| RGB LED function illumination + status illumination | ● | ● | ● | ● | – | – |
| Setting the RTC operating mode | ● | ● | ● | ● | – | – |
| Value transmitter, 2 objects, button upper/lower | ● | ● | ● | ● | – | – |
| Light scene extension unit with light scene memory function | ● | ● | ● | ● | – | – |
| Step switch, button pair | ● | ● | ● | ● | – | – |
| Step switch, button upper/lower | ● | ● | ● | ● | – | – |
| Multiple operation, botton upper/lower | ● | ● | ● | ● | – | – |
| IR remote control channels (up to 5 channels) | – | – | – | ● | – | – |
| | | | | | | |
| **Room temperature controller only** | | | | | | |
| Temperature reading | – | – | – | – | – | ● |
| Master/Slave configuration | – | – | – | – | – | ● |
| RTC settings | – | – | – | – | – | ● |
| Base-load operation | – | – | – | – | – | ● |
| Illuminated display | – | – | – | – | – | ● |
| Fan Coil operation for heating and cooling | – | – | – | – | – | ● |
| | | | | | | |
| 10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.) | ● | ● | ● | ● | – | ● |
| | | | | | | |
| Busch-Watchdog 4 channels | – | – | – | – | ● | – |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Functional Overview

| Program | Zenit (VDE and NEMA) | | | | | |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | 6125/98-509<br>1/2gang | 6126/98-509<br>2/4gang | 6129/96-509<br>3/6gang | 6129/98-509<br>3/6gang with IR | 6122/98-509 | 6124/88-509 |
| **KNX function** | | | | | | |
| Switching, button pair | ● | ● | ● | ● | – | – |
| Switching, button upper/lower | ● | ● | ● | ● | – | – |
| Dimming, button pair | ● | ● | ● | ● | – | – |
| Dimming, button upper/lower | ● | ● | ● | ● | – | – |
| Blind, button pair | ● | ● | ● | ● | – | – |
| Blind, button upper/lower | ● | ● | ● | ● | – | – |
| Short-long operation,button upper/lower | ● | ● | ● | ● | – | – |
| Value transmitter, button pair | ● | ● | ● | ● | – | – |
| Value transmitter, button upper/lower | ● | ● | ● | ● | – | – |
| Value dimming sensor, button pair | ● | ● | ● | ● | – | – |
| Value dimming sensor, upper/lower | ● | ● | ● | ● | – | – |
| RGB LED function illumination + status illumination | ● | ● | ● | ● | – | – |
| Setting the RTC operating mode | ● | ● | ● | ● | – | – |
| Value transmitter, 2 objects, button upper/lower | ● | ● | ● | ● | – | – |
| Light scene extension unit with light scene memory function | ● | ● | ● | ● | – | – |
| Step switch, button pair | ● | ● | ● | ● | – | – |
| Step switch, button upper/lower | ● | ● | ● | ● | – | – |
| Multiple operation, botton upper/lower | ● | ● | ● | ● | – | – |
| IR remote control channels (up to 5 channels) | – | – | – | ● | – | – |
| | | | | | | |
| **Room temperature controller only** | | | | | | |
| Temperature reading | – | – | – | – | – | ● |
| Master/Slave configuration | – | – | – | – | – | |
| RTC settings | – | – | – | – | – | ● |
| Base-load operation | – | – | – | – | – | |
| Illuminated display | – | – | – | – | – | ● |
| Fan Coil operation for heating and cooling | – | – | – | – | – | ● |
| | | | | | | |
| 10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.) | ● | ● | ● | ● | – | ● |
| | | | | | | |
| Busch-Watchdog 4 channels | – | – | – | – | ● | – |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Busch-*priOn*®

Busch-priOn® allows you to control and monitor functions for the entire room. Light, scenes, timer, blind control unit, heating control unit – all functions are controlled simply and intuitively via a rotary dial, and freely programmable functions can be called up via the rocker switches. Busch-priOn® is a non-fixed, modular concept.




### Colours that make life easier.

A consistent colour coding concept and durable LED technology make Busch-priOn® extremely easy to operate. The dial lights up in the colours of the coding system, thus providing feedback on the function currently selected. Yellow stands for lighting, blue for the blind control unit, magenta for light scenes and orange for the heating control unit. These colours are also found on the rocker switches of the control element panels.

01



The rotary control element is equipped with a freely programmable button which can be pressed and turned. It can be used to switch and dim individual lamps, but also to switch on whole groups of lamps with one press of a button and vary their brightness continuously via the dial.

**Function**
Dimming | Blinds | Value | Light scenes | Logic functions | Time functions

**Features**
Illuminated dial | Colour coding concept | Anti-theft protection | Day/night operation

02



The single control element is equipped with a freely programmable „large“ operating button. It can be assigned to one topic and can carry out a maximum of two commands.

**Function**
Switching | Dimming | Blinds | Value | Buttons | Light scenes | Logic functions | Time functions

**Features**
Illuminated rocker switch | Colour coding concept | Freely programmable control button | Anti-theft protection | Replaceable labelling symbol (Fig. shows Lighting labelling symbol)

03



The triple control element is equipped with 3 freely programmable control buttons. Each can be assigned to one topic and can carry out a maximum of two commands.

**Function**
Switching | Dimming | Blinds | Value | Buttons | Light scenes | Logic functions | Time functions

**Features**
Illuminated rocker switches | Colour coding concept | Freely programmable control buttons | Anti-theft protection | Replaceable labelling symbol (Fig. shows labelling symbols Lighting, Blinds and Scene)

| | |
|---|---|
| 01 | Rotary control element |
| 02 | 1gang control element |
| 03 | 3gang control element |
| 04 | Glass black |
| 05 | Studiowhite, glossy |
| 06 | Stainless steel |
| 07 | White glass |

04 05 06 07




reddot design award
best of the best 2008

Busch-priOn® received special commendment in the category „best of the best,“ winning the „red dot award: communication design 2008“ for its interface design.

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Busch-*priOn*®

01



A single-line display with integrated room temperature controller has been designed for the Busch-priOn® 3gang control element, technically reduced to the basics and optically elegant. It is particularly easy to read due to the monochromatic design for white on black information. The room temperature controller, information function like time and date, up to 17 freely programmable text displays, IR sensor and proximity sensor have been integrated into the display. The design of the display is available in the colour and material “glass black” only.

02



The 8.9 cm (3.5”) TFT display gives a clear overview of all information. Operation is simple intuitive, supported the colour coding concept. It is possible freely combine several Busch-priOn® elements with each other. display and a special allow simple and convenient control.

03



Busch-priOn® is a nonfixed, modular-design system. The rocker switches of the triple control element allow you to call up freely programmable functions such as light scenes, blind functions or specific lamps.

04



Busch-priOn® is ideal in combination with the carat® switch series, which has surfaces in the same design.

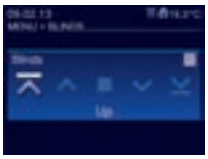
05



The Busch-priOn® flush-mounted movement sensor can be used individually or with other Busch-priOn® modules. Practical because users thus do not have to look for the light switch and are greeted with light when first entering a dark room.



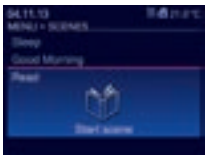
The 8.9 cm (3.5”) TFT display gives a clear overview of all information. The user can choose from 3 surface designs: black, blue and silver.



Blinds



Climate control



Scene

**Note:** We can only give you a rough idea here of the wide range of combinations offered by this modular concept. For more detailed information, see our separate product brochure / planning aid or the catalogue.

| | |
|---|---|
| 01 | 3gang control element with single-line display and temperature controller |
| 02 | 2gang combination |
| 03 | 3gang combination |
| 04 | carat® glass black |
| 05 | Flush-mounted movement sensor |

**End strips without function**

studio white,
Article-No. 6348-24G-101-500

white glass,
Article-No. 6348-811-101-500

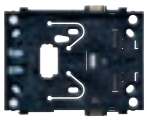
glass black,
Article-No. 6348-825-101-500

stainless steel,
Article-No. 6348-860-101-500

**Support frame, bus coupler**



Bus coupler Busch-*priOn*®,
Article-No. 6120/12-101



1gang,
Article-No.
6346/10-101-500

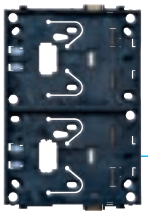
**Note:**
This power adaptor can supply up to 15 power bus couplers with current.



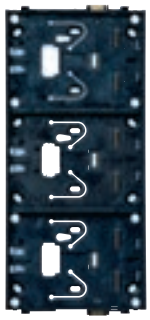
Power adaptor
REG,
Article-No.
CP-D 24/2.5



Bus coupler Busch-*priOn*®,
Article-No. 6120/13-500



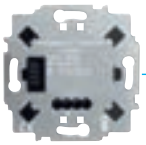
2gang,
Article-No.
6346/11-101-500



3gang,
Article-No.
6346/12-101-500

**FM actuators**

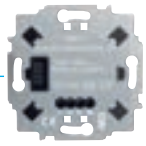
**Without end strip incl. temperature reading**



Switch actuator,
1gang, FM
2.300 w/VA,
Article-No.
6354 U-500



Universal dimming
actuator, 1gang, FM
10–450 w/VA,
Article-No.
6355 U-500



Serial/blind actuator,
2/1gang, FM
2.300 w/VA,
Article-No.
6356 U-500

**End strip**




Commissioning adaptor,
Article-No. 6149/21-500

**End strips without function**

studio white,
Article-No. 6349-24G-101-500

white glass,
Article-No. 6349-811-101-500

glass black,
Article-No. 6349-825-101-500

stainless steel,
Article-No. 6349-860-101-500

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Planning aid for Busch-*priOn*®

**End strip with IR proximity function**



glass black,
Article-No.
6350-825-101-500

**Note:**
only combinable with 3gang control element and rotary control element



Single-line display and room thermostat,
Article-No.
6351/08-825-500



Control element,
1gang,
Article-No.
6340-825-101-500



Control element,
3gang, Article-No.
6342-825-101-500



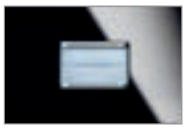
Rotary control element,
1gang,
Article-No.
6341-825-101-500



Rotary control element,
1gang,
Article-No.
6341-825-101-500



Colour display with rotary control element,
Article-No.
6344-825-101-500



Busch-Watchdog,
180 FM,
Article-No.
6345-825-101-500

**End strips with temperature sensor.**

Not combinable with FM actuators.

studio white,
Article-No. 6352-24G-101-500

white glass,
Article-No. 6352-811-101-500

glass black,
Article-No. 6352-825-101-500

stainless steel,
Article-No. 6352-860-101-500

**Colour range**



**Busch-*priOn*®**
glass black



**Busch-*priOn*®**
white glass



**Busch-*priOn*®**
stainless steel



**Busch-*priOn*®**
studio white, gloss

**Labelling symbols**



Labelling inserts for blinds, lighting, RTC and scene. The colours are repeated in the Busch-Jaeger colour concept.

11



6120/12-101-500

### Bus Coupler, FM

for Busch-priOn® support frame 1-fold 6346/10-10x and control elements 6122/0x-xxx, 6124/0x-xxx, 6125/0x-xxx, 6126/0x-xxx, 6127/0x-xxx, 6128/0x-xxx and 6129/0x-xxx.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6120/12-101-500 | 6120-0-0075 | | 1 | |
| swiss version | – | 6120/12-101-508 | 6120-0-0076 | | 1 | |



6120/13-500

### Power Bus Coupler, FM, Busch-priOn®

For Busch-priOn® base frame 1-fold, 2-fold and 3-fold.
Separate power supply required. The KNX connection is used exclusively for bus communication.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6120/13-500 | 6120-0-0072 | | 1 | |
| swiss version | – | 6120/13-508 | 6120-0-0073 | | 1 | |



6354 U-500

### Switch Actuator/Sensor, 1-fold, FM, Busch-priOn®

For switching incandescent lamps, 230 V halogen lamps, fluorescent lamps and low-voltage halogen lamps operated using transformers 3-wire technology (Neutral conductor required). Only in conjunction with a 2-fold and 3-fold base frame Cannot be combined with the lower finishing strip with temperature sensor.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6354 U-500 | 6310-0-0097 | | 1 | |





6356 U-500

### Shutter/2-fold Actuator, FM, Busch-priOn®

Only in conjunction with a 2-fold and 3-fold base frame. Not suitable for switching fluorescent lamps, HQI lamps and HQL lamps. Cannot be combined with the lower finishing strip with temperature sensor.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6356 U-500 | 6310-0-0099 | | 1 | |

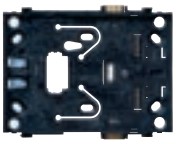


6355 U-500

### Shutter/2-fold Actuator, FM, Busch-priOn®

Only in conjunction with a 2-fold and 3-fold base frame Not suitable for switching fluorescent lamps, HQI lamps and HQL lamps. Cannot be combined with the lower finishing strip with temperature sensor.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6355 U-500 | 6310-0-0098 | | 1 | |

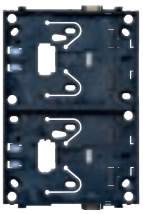


6346/10-101-500

### Base Frame, 1-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of rotary control elements, operating element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Bus Coupler priOn or Power Bus Coupler priOn.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6346/10-101-500 | 6310-0-0135 | | 1 | |

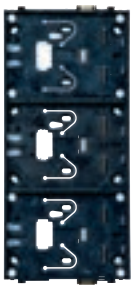


6346/11-101-500

### Base Frame, 2-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6346/11-101-500 | 6310-0-0137 | | 1 | |



6346/12-101-500

### Base Frame, 3-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6346/12-101-500 | 6310-0-0139 | | 1 | |



6340-825-101-500

### Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6340-24G-101-500 | 6310-0-0109 | | 1 | |
| white glass | – | 6340-811-101-500 | 6310-0-0168 | | 1 | |
| glass black | – | 6340-825-101-500 | 6310-0-0108 | | 1 | |
| stainless steel | – | 6340-866-101-500 | 6310-0-0106 | | 1 | |

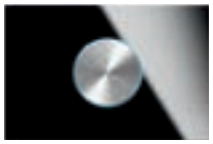


6342-825-101-500

### Control Element, 3-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6342-24G-101-500 | 6310-0-0125 | | 1 | |
| white glass | – | 6342-811-101-500 | 6310-0-0172 | | 1 | |
| glass black | – | 6342-825-101-500 | 6310-0-0124 | | 1 | |
| stainless steel | – | 6342-866-101-500 | 6310-0-0122 | | 1 | |



6341-825-101-500

### Rotary Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function rotary control element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the rotary knob or standard lighting in red/green. Rotary knob stainless steel.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6341-24G-101-500 | 6310-0-0117 | | 1 | |
| white glass | – | 6341-811-101-500 | 6310-0-0170 | | 1 | |
| glass black | – | 6341-825-101-500 | 6310-0-0116 | | 1 | |
| stainless steel | – | 6341-866-101-500 | 6310-0-0114 | | 1 | |



6344-825-101-500

### 8.89 cm (3.5") TFT Colour Display with Rotary Control Element, Busch-priOn®

Freely programmable 8.89 cm (3.5") TFT colour display with rotary control element for installation in the Base Frame, 2-fold or 3-fold. For representation of up to 120 functions.
With integrated weekly time switch, alarm, timer, with light scene function, screensaver and control of multimedia devices (in conjunction with additional device). Free function inscription with user-defined texts and symbols. Supports the KNX functions with innovative colour concept on the rotary knob. Rotary knob stainless steel.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6344-24G-101-500 | 6310-0-0133 | | 1 | |
| white glass | – | 6344-811-101-500 | 6310-0-0174 | | 1 | |
| glass black | – | 6344-825-101-500 | 6310-0-0132 | | 1 | |
| stainless steel | – | 6344-866-101-500 | 6310-0-0130 | | 1 | |



6345-825-101-500

### Busch Watchdog® 180 FM Sensor, Busch-priOn®

Sends switching commands with motion detection in combination with the bus coupler Busch-priOn®. Programmable via ETS for automatic and semi-automatic operation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6345-24G-101-500 | 6310-0-0081 | | 1 | |
| white glass | – | 6345-811-101-500 | 6310-0-0176 | | 1 | |
| glass black | – | 6345-825-101-500 | 6310-0-0080 | | 1 | |
| stainless steel | – | 6345-866-101-500 | 6310-0-0078 | | 1 | |



6348-825-101-500

### Top End Strip, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6348-24G-101-500 | 6310-0-0147 | | 1 | |
| white glass | – | 6348-811-101-500 | 6310-0-0178 | | 1 | |
| glass black | – | 6348-825-101-500 | 6310-0-0146 | | 1 | |
| stainless steel | – | 6348-866-101-500 | 6310-0-0144 | | 1 | |



6350-825-101-500

### Top End Strip with IR Receiver and Proximity Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. With integrated IR receiver for control by IR handheld control as well as integrated proximity function.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| glass black | – | 6350-825-101-500 | 6310-0-0157 | | 1 | |



6349-825-101-500

### Bottom End Strip without logo, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6349-24G-101-500 | 6310-0-0155 | | 1 | |
| white glass | – | 6349-811-101-500 | 6310-0-0180 | | 1 | |
| glass black | – | 6349-825-101-500 | 6310-0-0154 | | 1 | |
| stainless steel | – | 6349-860-101-500 | 6310-0-0152 | | 1 | |



6352-825-101-500

### Bottom End Strip with Temperature Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. Provides the value measured by the temperature sensor to the 8.89 cm (3.5") TFT colour display or the room thermostat.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white, high gloss | – | 6352-24G-101-500 | 6310-0-0165 | | 1 | |
| white glass | – | 6352-811-101-500 | 6310-0-0182 | | 1 | |
| glass black | – | 6352-825-101-500 | 6310-0-0164 | | 1 | |
| stainless steel | – | 6352-860-101-500 | 6310-0-0162 | | 1 | |



6351/08-825-500

### Top End Strip with Display, Room Thermostat, IR Receiver and Proximity Sensor, Busch-priOn®

NEW

Top end strip for installation on 1gang to 3gang support frame (6346/10-101, 6346/11-101 und 6346/12-101). With integrated IR receiver for control using the Busch remote control 6010-25 or 6020-.../6121... and integrated proximity function. For heating and cooling (PI, PWM or 2-point). For control of up to 5-level ventilation actuators. With manual adjustment of fan levels. Master/slave configuration. With base-load operation. Display of up to 17 functions as text and/or icon. Only in connection with 1-gang rotary control element (6341-xxx-101) and 3-gang control element (6342-xxx-101) possible. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Detection range: frontal: 0.5 m, lateral: 0.5 m. Detection angle: 100 °. Mounting height: 1.1 m. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C.
Dimensions: (L x W x D): 33.4 mm x 106.6 mm x 15.5 mm

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| glass black | – | 6351/08-825-500 | 6310-0-0183 | | 1 | |





6353/20-860-500

### Inscription Symbols, Busch-priOn®

For Busch-priOn® operating element 1-fold to 3-fold with different symbols.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| lighting | – | 6353/20-860-500 | 6310-0-0093 | | 10 | |
| blind | – | 6353/30-860-500 | 6310-0-0094 | | 10 | |
| Room Temperature | – | 6353/40-860-500 | 6310-0-0095 | | 10 | |
| scene | – | 6353/50-860-500 | 6310-0-0096 | | 10 | |



6149/21-500

## Commissioning Interface / Adapter

6120/12-101-500 and 6120/13-500 via USB port or via SD card slot.
With integrated battery for independent operation for up to 8 h.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6149/21-500 | 6133-0-0201 | | 1 | |



CP-D 24/2.5

## Power Supply, 24 V, 2.5 A, MDRC

For Busch-priOn® Power Bus Coupler 6120/13-500.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | CP-D 24/2.5 | 2CDG120037R0011 | | 1 | |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Standard Control Elements

The standard control elements are available as 1/2gang, 2/4gang or 4/8gang models. Every switch rocker has two LEDs, which display the status of the connected loads. The separate switch rockers are freely programmable and are suitable for switching and dimming, and also for operating blinds and as a light scene extension unit.

They can also be used in commercial applications. Anti-theft protection has also
been integrated – an important factor for installations in public areas.

**Customised text.** Pictograms can be applied to push buttons
for easier orientation. A clear text template with standard symbols is included for every sensor. The self-explanatory pictograms are available for the complete range of building control technology and if necessary can be easily replaced. If the appropriate symbol is not included, the push buttons can be labelled as desired. The related bus-coupler unit is included in delivery.

01



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

02



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

03



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)



01 Standard control element 1/2gang
02 Standard control element 2/4gang
03 Standard control element 4/8gang



6125/01



6126/01



6127/01

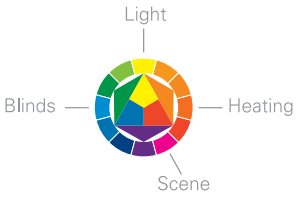
| | Standard control element, 1-fold with bus coupler enclosed | Standard control element, 2-fold with bus coupler enclosed | Standard control element, 4-fold with bus coupler enclosed |
|---|---|---|---|
| With labelling field. Transparent labelling sheet with standard symbols included in delivery. Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm | With 1 Control element: rocker switch left/right | With 2 Control elements: rocker switch left/right | With 4 Control elements: rocker switch left/right |

| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | future® linear | | | | | | | | | |
| 1 | | anthracite | 6125/01-81-500 | 6115-0-0205 | | 6126/01-81-500 | 6116-0-0195 | | 6127/01-81-500 | 6117-0-0221 | |
| 1 | | savanne/ivory | 6125/01-82-500 | 6115-0-0206 | | 6126/01-82-500 | 6116-0-0196 | | 6127/01-82-500 | 6117-0-0222 | |
| 1 | | aluminium silver [1] | 6125/01-83-500 | 6115-0-0207 | | 6126/01-83-500 | 6116-0-0197 | | 6127/01-83-500 | 6117-0-0223 | |
| 1 | | davos/studio white | 6125/01-84-500 | 6115-0-0183 | | 6126/01-84-500 | 6116-0-0174 | | 6127/01-84-500 | 6117-0-0200 | |
| 1 | | studio white, matt [1] | 6125/01-884-500 | 6115-0-0214 | | 6126/01-884-500 | 6116-0-0204 | | 6127/01-884-500 | 6117-0-0230 | |
| 1 | | black, matt [1] | 6125/01-885-500 | 6115-0-0215 | | 6126/01-885-500 | 6116-0-0205 | | 6127/01-885-500 | 6117-0-0231 | |
| | | | | | | | | | | | |
| | | solo® | | | | | | | | | |
| 1 | | savanne/ivory | 6125/01-82-500 | 6115-0-0206 | | 6126/01-82-500 | 6116-0-0196 | | 6127/01-82-500 | 6117-0-0222 | |
| 1 | | davos/studio white | 6125/01-84-500 | 6115-0-0183 | | 6126/01-84-500 | 6116-0-0174 | | 6127/01-84-500 | 6117-0-0200 | |
| 1 | | meteor/grey metallic [1] | 6125/01-803-500 | 6115-0-0212 | | 6126/01-803-500 | 6116-0-0202 | | 6127/01-803-500 | 6117-0-0228 | |
| 1 | | sahara/yellow | 6125/01-815-500 | 6115-0-0213 | | 6126/01-815-500 | 6116-0-0203 | | 6127/01-815-500 | 6117-0-0229 | |
| | | | | | | | | | | | |
| | | carat® | | | | | | | | | |
| 1 | | anthracite | 6125/01-81-500 | 6115-0-0205 | | 6126/01-81-500 | 6116-0-0195 | | 6127/01-81-500 | 6117-0-0221 | |
| 1 | | savanne/ivory | 6125/01-82-500 | 6115-0-0206 | | 6126/01-82-500 | 6116-0-0196 | | 6127/01-82-500 | 6117-0-0222 | |
| 1 | | davos/studio white | 6125/01-84-500 | 6115-0-0183 | | 6126/01-84-500 | 6116-0-0174 | | 6127/01-84-500 | 6117-0-0200 | |
| | | | | | | | | | | | |
| | | pure stainless steel [1] | | | | | | | | | |
| 1 | | stainless steel | 6125/01-866-500 | 6115-0-0211 | | 6126/01-866-500 | 6116-0-0201 | | 6127/01-866-500 | 6117-0-0227 | |
| | | | | | | | | | | | |
| | | Busch-axcent® | | | | | | | | | |
| 1 | | davos/studio white | 6125/01-84-500 | 6115-0-0183 | | 6126/01-84-500 | 6116-0-0174 | | 6127/01-84-500 | 6117-0-0200 | |
| 1 | | chalet-white | 6125/01-896-500 | 6115-0-0449 | | 6126/01-896-500 | 6116-0-0224 | | 6127/01-896-500 | 6117-0-0249 | |

[1] Surface painted

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Multifunction Control Elements

The multifunction control elements with LED colour code concept meet the highest demands for comfort and technology. They each come with two RGB LEDs per rocker switch, which conform to a consistent colour concept. This makes the function obvious at a glance, and the surfaces can be additionally fitted with pictograms. Each side of a rocker switch can be occupied with its own function – each for calling up one light scene, for instance. This turns a 4gang control element into an 8gang control element.








01 Multifunction control element 1/2gang

02 Multifunction control element 2/4gang

03 Multifunction control element 4/8gang

04 Room temperature controller

05 Multifunction control element 2/4gang, integrated room thermostat

06 Multifunction control element 3/6gang with IR reception

07 FM movement detector standard

08 FM movement detector comfort

01



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

02



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

03



**Function**
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Multifunction Control Elements

**Wide range.** Different shapes, colours and materials fulfil every requirement. KNX control elements are available in the carat®, pure stainless steel, solo®, Busch-axcent® and future® linear programmes. The complete range of conventional switches from these series is available, so there are no limits to the options for combining KNX components.









04




**Function**
Comfort | Stand-by | Night mode | Frost protection | Specified temperature | Time | Date | Heating | Cooling | Fan Coil operation for heating and cooling | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Display illumination | LED colour code concept

05




**Function**
Comfort | Stand-by | Night mode | Frost protection | Specified temperature | Time | Date | Heating | Cooling | Fan Coil operation for heating and cooling | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Display illumination | Colour concept

06



**Function**
10 freely programmable IR channels | Switching | Dimming | Blinds | Button | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

**Features**
Labellable switch rockers | Anti-theft protection | Display illumination | Colour concept

07



08



**Function**
4 channels | Logic function (including light scenes)

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Multifunction Control Elements



6125/02



6126/02



6127/02

For BCU 6120/12-101-500 or 6120/13-500. With labelling field. Support of KNX functions through innovative colour concept or standard illumination red/green. Push switch function: switching/dimming/blind/sending values/scenes etc. Transparent labelling sheet with standard symbols included in delivery. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light.

**Control element, 1/2-fold**
**Multi-function/colour concept**
With 1 Control element: rocker switch left/right

**Control element, 2/4-fold**
**Multi-function/colour concept**
With 2 Control elements: rocker switch left/right

**Control element, 4/8-fold**
**Multi-function/colour concept**
With 4 Control elements: rocker switch left/right

| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | future® linear | | | | | | | | | |
| 1 | | anthracite | 6125/02-81-500 | 6115-0-0216 | | 6126/02-81-500 | 6116-0-0206 | | 6127/02-81-500 | 6117-0-0232 | |
| 1 | | savanne/ivory | 6125/02-82-500 | 6115-0-0217 | | 6126/02-82-500 | 6116-0-0207 | | 6127/02-82-500 | 6117-0-0233 | |
| 1 | | aluminium silver [1] | 6125/02-83-500 | 6115-0-0218 | | 6126/02-83-500 | 6116-0-0208 | | 6127/02-83-500 | 6117-0-0234 | |
| 1 | | davos/studio white | 6125/02-84-500 | 6115-0-0219 | | 6126/02-84-500 | 6116-0-0209 | | 6127/02-84-500 | 6117-0-0235 | |
| 1 | | studio white, matt [1] | 6125/02-884-500 | 6115-0-0226 | | 6126/02-884-500 | 6116-0-0216 | | 6127/02-884-500 | 6117-0-0242 | |
| 1 | | black, matt [1] | 6125/02-885-500 | 6115-0-0227 | | 6126/02-885-500 | 6116-0-0217 | | 6127/02-885-500 | 6117-0-0243 | |
| | | | | | | | | | | | |
| | | solo® | | | | | | | | | |
| 1 | | savanne/ivory | 6125/02-82-500 | 6115-0-0217 | | 6126/02-82-500 | 6116-0-0207 | | 6127/02-82-500 | 6117-0-0233 | |
| 1 | | davos/studio white | 6125/02-84-500 | 6115-0-0219 | | 6126/02-84-500 | 6116-0-0209 | | 6127/02-84-500 | 6117-0-0235 | |
| 1 | | meteor/grey metallic [1] | 6125/02-803-500 | 6115-0-0224 | | 6126/02-803-500 | 6116-0-0214 | | 6127/02-803-500 | 6117-0-0240 | |
| 1 | | sahara/yellow [1] | 6125/02-815-500 | 6115-0-0225 | | 6126/02-815-500 | 6116-0-0215 | | 6127/02-815-500 | 6117-0-0241 | |
| | | | | | | | | | | | |
| | | carat® | | | | | | | | | |
| 1 | | anthracite | 6125/02-81-500 | 6115-0-0216 | | 6126/02-81-500 | 6116-0-0206 | | 6127/02-81-500 | 6117-0-0232 | |
| 1 | | savanne/ivory | 6125/02-82-500 | 6115-0-0217 | | 6126/02-82-500 | 6116-0-0207 | | 6127/02-82-500 | 6117-0-0233 | |
| 1 | | davos/studio white | 6125/02-84-500 | 6115-0-0219 | | 6126/02-84-500 | 6116-0-0209 | | 6127/02-84-500 | 6116-0-0209 | |
| | | | | | | | | | | | |
| | | pure stainless steel [1] | | | | | | | | | |
| 1 | | stainless steel | 6125/02-866-500 | 6115-0-0223 | | 6126/02-866-500 | 6116-0-0213 | | 6127/02-866-500 | 6117-0-0239 | |
| | | | | | | | | | | | |
| | | Busch-axcent® | | | | | | | | | |
| 1 | | davos/studio white | 6125/02-84-500 | 6115-0-0219 | | 6126/02-84-500 | 6116-0-0209 | | 6127/02-84-500 | 6117-0-0235 | |
| 1 | | chalet-white | 6125/02-896-500 | 6115-0-0451 | | 6126/02-896-500 | 6116-0-0226 | | 6127/02-896-500 | 6117-0-0251 | |
| | | | | | | | | | | | |
| | | Dynasty® | | | | | | | | | |
| 1 | | anthracite **NEW** | 6125/02-81-500 | 6115-0-0216 | | 6126/02-81-500 | 6116-0-0206 | | 6127/02-81-500 | 6117-0-0232 | |
| 1 | | savanne/ivory **NEW** | 6125/02-82-500 | 6115-0-0217 | | 6126/02-82-500 | 6116-0-0207 | | 6127/02-82-500 | 6117-0-0233 | |
| 1 | | antique brass **NEW** | 6125/02-840-500 | 6115-0-0452 | | 6126/02-840-500 | 6116-0-0227 | | 6127/02-840-500 | 6117-0-0252 | |

[1] Surface painted



6129/01

## Control Element, 3/6-fold, multifunction, with IR-Interface, FM

suitable for KNX bus coupler 6120/12-101-500 and 6120/13-500. With IR interface for Busch-remote controllers 6010-25 or 6020-…/6021-… . Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. Two freely programmable RGB LEDs per rocker. With RGB colour code concept or red/green/OFF-operation. With labeling field. Transparent labeling sheet with standard symbols included in delivery.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| future® linear | | | | | | |
| anthracite | – | 6129/01-81-500 | 6135-0-0156 | | 1 | |
| savanne/ivory | – | 6129/01-82-500 | 6135-0-0157 | | 1 | |
| aluminium silver 1) | – | 6129/01-83-500 | 6135-0-0158 | | 1 | |
| davos/studio white | – | 6129/01-84-500 | 6135-0-0146 | | 1 | |
| studio white, matt 1) | – | 6129/01-884-500 | 6135-0-0165 | | 1 | |
| black, matt 1) | – | 6129/01-885-500 | 6135-0-0166 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| savanne/ivory | – | 6129/01-82-500 | 6135-0-0157 | | 1 | |
| davos/studio white | – | 6129/01-84-500 | 6135-0-0146 | | 1 | |
| meteor/grey metallic 1) | – | 6129/01-803-500 | 6135-0-0163 | | 1 | |
| sahara/yellow | – | 6129/01-815-500 | 6135-0-0164 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | 6129/01-81-500 | 6135-0-0156 | | 1 | |
| savanne/ivory | – | 6129/01-82-500 | 6135-0-0157 | | 1 | |
| davos/studio white | – | 6129/01-84-500 | 6135-0-0146 | | 1 | |
| | | | | | | |
| pure stainless steel 1) | | | | | | |
| stainless steel | – | 6129/01-866-500 | 6135-0-0162 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| davos/studio white | – | 6129/01-84-500 | 6135-0-0146 | | 1 | |
| chalet-white | – | 6129/01-896-500 | 6135-0-0170 | | 1 | |

1) Surface painted

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Movement Detectors



6122/01



6122/02

| | Busch-Watchdog 180 flush-mounted standard sensor | Busch-Watchdog 180 flush-mounted comfort sensor II |
|---|---|---|
| Movement detector with up to 4 channels. For ABB i-bus® KNX 6120/12-101, 6120/13. | Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.) | Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.) |

| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
|---|---|---|---|---|---|---|---|---|
| | | future® linear | | | | | | |
| 1 | | anthracite | 6122/01-81-500 | 6132-0-0272 | | 6122/02-81-500 | 6132-0-0283 | |
| 1 | | savanne/ivory | 6122/01-82-500 | 6132-0-0273 | | 6122/02-82-500 | 6132-0-0284 | |
| 1 | | aluminium silver [1] | 6122/01-83-500 | 6132-0-0274 | | 6122/02-83-500 | 6132-0-0285 | |
| 1 | | davos/studio white | 6122/01-84-500 | 6132-0-0250 | | 6122/02-84-500 | 6132-0-0263 | |
| 1 | | studio white, matt [1] | 6122/01-884-500 | 6132-0-0281 | | 6122/02-884-500 | 6132-0-0292 | |
| 1 | | black, matt [1] | 6122/01-885-500 | 6132-0-0282 | | 6122/02-885-500 | 6132-0-0293 | |
| | | | | | | | | |
| | | solo® | | | | | | |
| 1 | | savanne/ivory | 6122/01-82-500 | 6132-0-0273 | | 6122/02-82-500 | 6132-0-0284 | |
| 1 | | davos/studio white | 6122/01-84-500 | 6132-0-0250 | | 6122/02-84-500 | 6132-0-0263 | |
| 1 | | meteor/grey metallic [1] | 6122/01-803-500 | 6132-0-0279 | | 6122/02-803-500 | 6132-0-0290 | |
| 1 | | sahara/yellow | 6122/01-815-500 | 6132-0-0280 | | 6122/02-815-500 | 6132-0-0291 | |
| | | | | | | | | |
| | | carat® | | | | | | |
| 1 | | anthracite | 6122/01-81-500 | 6132-0-0272 | | 6122/02-81-500 | 6132-0-0283 | |
| 1 | | savanne/ivory | 6122/01-82-500 | 6132-0-0273 | | 6122/02-82-500 | 6132-0-0284 | |
| 1 | | davos/studio white | 6122/01-84-500 | 6132-0-0250 | | 6122/02-84-500 | 6132-0-0263 | |
| | | | | | | | | |
| | | pure stainless steel [1] | | | | | | |
| 1 | | stainless steel | 6122/01-866-500 | 6132-0-0278 | | 6122/02-866-500 | 6132-0-0289 | |
| | | | | | | | | |
| | | Busch-axcent® | | | | | | |
| 1 | | davos/studio white | 6122/01-84-500 | 6132-0-0250 | | 6122/02-84-500 | 6132-0-0263 | |
| 1 | | chalet-white | 6122/01-896-500 | 6132-0-0322 | | 6122/02-896-500 | 6132-0-0324 | |
| | | | | | | | | |
| | | Dynasty® | | | | | | |
| | | anthracite **NEW** | 6122/01-81-500 | 6132-0-0272 | | | | |
| | | savanne/ivory **NEW** | 6122/01-82-500 | 6132-0-0273 | | | | |
| | | antique brass **NEW** | 6122/01-840-500 | 6132-0-0355 | | | | |

[1] Surface painted



6122/10-84-500

## Busch-Watchdog® 180 Sensor Standard, Select with integrated bus coupler, FM NEW

Movement detector with up to 4 channels. The bus can be connected via enclosed terminal block. With integrated KNX bus coupler.

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | 6122/10-212-500 | 6132-0-0373 | | 1 | |
| alpine white | – | 6122/10-214-500 | 6132-0-0374 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | 6122/10-81-500 | 6132-0-0376 | | 1 | |
| ivory | – | 6122/10-82-500 | 6132-0-0377 | | 1 | |
| aluminium silver | – | 6122/10-83-500 | 6132-0-0378 | | 1 | |
| studio white | – | 6122/10-84-500 | 6132-0-0379 | | 1 | |
| studio white matt | – | 6122/10-884-500 | 6132-0-0380 | | 1 | |
| black, matt | – | 6122/10-885-500 | 6132-0-0381 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | 6122/10-82-500 | 6132-0-0377 | | 1 | |
| studio white | – | 6122/10-84-500 | 6132-0-0379 | | 1 | |
| grey metallic | – | 6122/10-803-500 | 6132-0-0382 | | 1 | |
| yellow | – | 6122/10-815-500 | 6132-0-0383 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | 6122/10-84-500 | 6132-0-0379 | | 1 | |
| chalet white | – | 6122/10-896-500 | 6132-0-0384 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | 6122/10-866-500 | 6132-0-0385 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | 6122/10-81-500 | 6132-0-0376 | | 1 | |
| ivory | – | 6122/10-82-500 | 6132-0-0377 | | 1 | |
| studio white | – | 6122/10-84-500 | 6132-0-0379 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | 6122/10-81-500 | 6132-0-0376 | | 1 | |
| ivory | – | 6122/10-82-500 | 6132-0-0377 | | 1 | |
| antique brass | – | 6122/10-840-500 | 6132-0-0407 | | 1 | |




6128/28-884-500

## Control element, 2/4gang, with RTC multi-function/colour concept NEW

For ABB i-bus® KNX bus coupler 6120/12-101-500, 6120/13-500. Support of KNX functions through innovative colour concept (yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green.
Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function).
Master/slave configuration. With base-load operation. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Transparent labelling sheet with standard symbols included in delivery.
Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts left/right, also for selecting setpoint and mode of operation
Display elements: LCD showing operation mode and temperature. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| future® linear | | | | | | |
| anthracite | – | 6128/28-81-500 | 6134-0-0331 | | 1 | |
| savanne/ivory | – | 6128/28-82-500 | 6134-0-0332 | | 1 | |
| aluminium silver | – | 6128/28-83-500 | 6134-0-0333 | | 1 | |
| davos/studio white | – | 6128/28-84-500 | 6134-0-0334 | | 1 | |
| studio white, matt | – | 6128/28-884-500 | 6134-0-0338 | | 1 | |
| black, matt | – | 6128/28-885-500 | 6134-0-0339 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| savanne/ivory | – | 6128/28-82-500 | 6134-0-0332 | | 1 | |
| davos/studio white | – | 6128/28-84-500 | 6134-0-0334 | | 1 | |
| meteor/grey metallic | – | 6128/28-803-500 | 6134-0-0336 | | 1 | |
| sahara/yellow | – | 6128/28-815-500 | 6134-0-0337 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | 6128/28-81-500 | 6134-0-0331 | | 1 | |
| savanne/ivory | – | 6128/28-82-500 | 6134-0-0332 | | 1 | |
| davos/studio white | – | 6128/28-84-500 | 6134-0-0334 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | 6128/28-866-500 | 6134-0-0335 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| davos/studio white | – | 6128/28-84-500 | 6134-0-0334 | | 1 | |
| chalet-white | – | 6128/28-896-500 | 6134-0-0340 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | 6128/28-81-500 | 6134-0-0331 | | 1 | |
| savanne/ivory | – | 6128/28-82-500 | 6134-0-0332 | | 1 | |
| antique brass | – | 6128/28-840-500 | 6134-0-0342 | | 1 | |



1721-184K

## Frames, future® linear

For vertical and horizontal installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, anthracite | – | 1721-181K | 1754-0-4240 | | 10 | |
| 1-fold, savanna/ivory | – | 1721-182K-500 | 1754-0-4506 | | 10 | |
| 1-fold, aluminium silver 1) | – | 1721-183K-500 | 1754-0-4529 | | 10 | |
| 1-fold, davos/studio white | – | 1721-184K-500 | 1754-0-4498 | | 10 | |
| 1-fold, studio white, matt 1) | – | 1721-884K-500 | 1754-0-4531 | | 10 | |
| 1-fold, black matt 1) | – | 1721-885K-500 | 1754-0-4532 | | 10 | |
| 2-fold, anthracite | – | 1722-181K | 1754-0-4241 | | 10 | |
| 2-fold, savanna/ivory | – | 1722-182K | 1754-0-4231 | | 10 | |
| 2-fold, aluminium silver 1) | – | 1722-183K-500 | 1754-0-4530 | | 10 | |
| 2-fold, davos/studio white | – | 1722-184K-500 | 1754-0-4499 | | 10 | |
| 2-fold, studio white, matt 1) | – | 1722-884K | 1754-0-4415 | | 10 | |
| 2-fold, black matt 1) | – | 1722-885K-500 | 1754-0-4534 | | 10 | |
| 3-fold, anthracite | – | 1723-181K | 1754-0-4242 | | 10 | |
| 3-fold, savanna/ivory | – | 1723-182K | 1754-0-4232 | | 10 | |
| 3-fold, aluminium silver 1) | – | 1723-183K-500 | 1754-0-4533 | | 10 | |
| 3-fold, davos/studio white | – | 1723-184K-500 | 1754-0-4502 | | 10 | |
| 3-fold, studio white, matt 1) | – | 1723-884K | 1754-0-4416 | | 10 | |
| 3-fold, black matt 1) | – | 1723-885K | 1754-0-4421 | | 10 | |
| 4-fold, anthracite | – | 1724-181K | 1754-0-4243 | | 10 | |
| 4-fold, savanna/ivory | – | 1724-182K | 1754-0-4233 | | 10 | |
| 4-fold, aluminium silver 1) | – | 1724-183K | 1754-0-4309 | | 10 | |
| 4-fold, davos/studio white | – | 1724-184K | 1754-0-4238 | | 10 | |
| 4-fold, studio white, matt 1) | – | 1724-884K | 1754-0-4417 | | 10 | |
| 4-fold, black matt 1) | – | 1724-885K | 1754-0-4422 | | 10 | |
| 5-fold, anthracite | – | 1725-181K | 1754-0-4244 | | 1 | |
| 5-fold, savanna/ivory | – | 1725-182K | 1754-0-4234 | | 1 | |
| 5-fold, aluminium silver 1) | – | 1725-183K | 1754-0-4310 | | 1 | |
| 5-fold, davos/studio white | – | 1725-184K-500 | 1754-0-4517 | | 1 | |
| 5-fold, studio white, matt 1) | – | 1725-884K | 1754-0-4418 | | 1 | |
| 5-fold, black matt 1) | – | 1725-885K | 1754-0-4423 | | 1 | |

1) Surface painted



1721-80

## Frames, solo®

For vertical and horizontal installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, chrome, matt | – | 1721-80-500 | 1754-0-4535 | | 10 | |
| 1-fold, chrome, glossy | – | 1721-80G-500 | 1754-0-4538 | | 10 | |
| 1-fold, davos/studio white | – | 1721-84-500 | 1754-0-4536 | | 10 | |
| 2-fold, chrome, matt | – | 1722-80-500 | 1754-0-4537 | | 10 | |
| 2-fold, chrome, glossy | – | 1722-80G | 1754-0-4327 | | 10 | |
| 2-fold, davos/studio white | – | 1722-84-500 | 1754-0-4539 | | 10 | |
| 3-fold, chrome, matt | – | 1723-80-500 | 1754-0-4540 | | 10 | |
| 3-fold, chrome, glossy | – | 1723-80G | 1754-0-4328 | | 10 | |
| 3-fold, davos/studio white | – | 1723-84-500 | 1754-0-4541 | | 10 | |
| 4-fold, chrome, matt | – | 1724-80 | 1754-0-4107 | | 1 | |
| 4-fold, chrome, glossy | – | 1724-80G | 1754-0-4329 | | 1 | |
| 4-fold, davos/studio white | – | 1724-84 | 1754-0-4112 | | 1 | |
| 5-fold, chrome, matt | – | 1725-80 | 1754-0-4108 | | 1 | |
| 5-fold, chrome, glossy | – | 1725-80G | 1754-0-4330 | | 1 | |
| 5-fold, davos/studio white | – | 1725-84 | 1754-0-4113 | | 1 | |



1721-860

## Frames, carat®

For vertical and horizontal installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, white glass | – | 1721-811 | 1754-0-4442 | | 1 | |
| 1-fold, bronze | – | 1721-821 | 1754-0-4258 | | 1 | |
| 1-fold, gold 1) | – | 1721-823-101 | 1754-0-4356 | | 1 | |
| 1-fold, glass black | – | 1721-825 | 1754-0-4322 | | 1 | |
| 1-fold, chrome | – | 1721-826-101 | 1754-0-4360 | | 1 | |
| 1-fold, stainless steel | – | 1721-860 | 1754-0-4254 | | 1 | |
| 2-fold, white glass | – | 1722-811 | 1754-0-4443 | | 1 | |
| 2-fold, bronze | – | 1722-821 | 1754-0-4259 | | 1 | |
| 2-fold, gold 1) | – | 1722-823-101 | 1754-0-4357 | | 1 | |
| 2-fold, glass black | – | 1722-825 | 1754-0-4323 | | 1 | |
| 2-fold, chrome | – | 1722-826-101 | 1754-0-4361 | | 1 | |
| 2-fold, stainless steel | – | 1722-860 | 1754-0-4255 | | 1 | |
| 3-fold, white glass | – | 1723-811 | 1754-0-4444 | | 1 | |
| 3-fold, bronze | – | 1723-821 | 1754-0-4260 | | 1 | |
| 3-fold, gold 1) | – | 1723-823-101 | 1754-0-4358 | | 1 | |
| 2-fold, glass black | – | 1722-825 | 1754-0-4323 | | 1 | |
| 3-fold, chrome | – | 1723-826-101 | 1754-0-4362 | | 1 | |
| 3-fold, stainless steel | – | 1723-860 | 1754-0-4256 | | 1 | |
| 4-fold, white glass | – | 1724-811 | 1754-0-4445 | | 1 | |
| 4-fold, bronze | – | 1724-821 | 1754-0-4261 | | 1 | |
| 4-fold, gold 1) | – | 1724-823-101 | 1754-0-4359 | | 1 | |
| 4-fold, glass black | – | 1724-825 | 1754-0-4325 | | 1 | |
| 4-fold, chrome | – | 1724-826-101 | 1754-0-4363 | | 1 | |
| 4-fold, stainless steel | – | 1724-860 | 1754-0-4257 | | 1 | |

[1] Gold plated 24 carat



1721-866K

## Frames, pure stainless steel

For vertical and horizontal installation. Stainless steel material.
Anti-fingerprint (does not leave any visible fingerprints on the material).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, stainless steel | – | 1721-866K-500 | 1754-0-4500 | | 10 | |
| 2-fold, stainless steel | – | 1722-866K-500 | 1754-0-4501 | | 10 | |
| 3-fold, stainless steel | – | 1723-866K | 1754-0-4319 | | 10 | |
| 4-fold, stainless steel | – | 1724-866K | 1754-0-4320 | | 1 | |
| 5-fold, stainless steel | – | 1725-866K | 1754-0-4321 | | 1 | |



1722-283

## Frames, axcent

For vertical and horizontal installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, black | – | 1721-281 | 1754-0-4409 | | 10 | |
| 1-fold, brown glass | – | 1721-283 | 1754-0-4543 | | 1 | |
| 1-fold, davos/studio white | – | 1721-284 | 1754-0-4331 | | 10 | |
| 1-fold, yellow | – | 1721-285 | 1754-0-4334 | | 10 | |
| 1-fold, green | – | 1721-286 | 1754-0-4337 | | 10 | |
| 1-fold, red | – | 1721-287 | 1754-0-4340 | | 10 | |
| 1-fold, blue | – | 1721-288 | 1754-0-4343 | | 10 | |
| 1-fold, white glass | – | 1721-280 | 1754-0-4437 | | 1 | |
| 1-fold, entrée-grey | – | 1721-291-500 | 1754-0-4471 | | 10 | |
| 1-fold, château-black | – | 1721-295-500 | 1754-0-4491 | | 10 | |
| 1-fold, chalet-white | – | 1721-296-500 | 1754-0-4486 | | 10 | |
| 1-fold, foyer-red | – | 1721-297-500 | 1754-0-4476 | | 10 | |
| 1-fold, maison-beige | – | 1721-299-500 | 1754-0-4481 | | 10 | |
| 2-fold, black | – | 1722-281 | 1754-0-4410 | | 10 | |
| 2-fold, brown glass | – | 1722-283 | 1754-0-4544 | | 1 | |
| 2-fold, davos/studio white | – | 1722-284 | 1754-0-4332 | | 10 | |
| 2-fold, yellow | – | 1722-285 | 1754-0-4335 | | 10 | |
| 2-fold, green | – | 1722-286 | 1754-0-4338 | | 10 | |
| 2-fold, red | – | 1722-287 | 1754-0-4341 | | 10 | |
| 2-fold, blue | – | 1722-288 | 1754-0-4344 | | 10 | |
| 2-fold, white glass | – | 1722-280 | 1754-0-4438 | | 1 | |
| 2-fold, entrée-grey | – | 1722-291-500 | 1754-0-4472 | | 10 | |
| 2-fold, château-black | – | 1722-295-500 | 1754-0-4492 | | 10 | |
| 2-fold, chalet-white | – | 1722-296-500 | 1754-0-4487 | | 10 | |
| 2-fold, foyer-red | – | 1722-297-500 | 1754-0-4477 | | 10 | |
| 2-fold, maison-beige | – | 1722-299-500 | 1754-0-4482 | | 10 | |

Continuation of table „Frames, axcent“ on next page

Continuation of table „Frames, axcent“

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 3-fold, black | – | 1723-281 | 1754-0-4411 | | 10 | |
| 3-fold, brown glass | – | 1723-283 | 1754-0-4545 | | 1 | |
| 3-fold, davos/studio white | – | 1723-284 | 1754-0-4333 | | 10 | |
| 3-fold, yellow | – | 1723-285 | 1754-0-4336 | | 10 | |
| 3-fold, green | – | 1723-286 | 1754-0-4339 | | 10 | |
| 3-fold, red | – | 1723-287 | 1754-0-4342 | | 10 | |
| 3-fold, blue | – | 1723-288 | 1754-0-4345 | | 10 | |
| 3-fold, white glass | – | 1723-280 | 1754-0-4439 | | 1 | |
| 3-fold, entrée-grey | – | 1723-291-500 | 1754-0-4473 | | 10 | |
| 3-fold, château-black | – | 1723-295-500 | 1754-0-4493 | | 10 | |
| 3-fold, chalet-white | – | 1723-296-500 | 1754-0-4488 | | 10 | |
| 3-fold, foyer-red | – | 1723-297-500 | 1754-0-4478 | | 10 | |
| 3-fold, maison-beige | – | 1723-299-500 | 1754-0-4483 | | 10 | |
| 4-fold, black | – | 1724-281 | 1754-0-4412 | | 1 | |
| 4-fold, brown glass | – | 1724-283 | 1754-0-4546 | | 1 | |
| 4-fold, davos/studio white | – | 1724-284 | 1754-0-4346 | | 1 | |
| 4-fold, yellow | – | 1724-285 | 1754-0-4348 | | 1 | |
| 4-fold, green | – | 1724-286 | 1754-0-4350 | | 1 | |
| 4-fold, red | – | 1724-287 | 1754-0-4352 | | 1 | |
| 4-fold, blue | – | 1724-288 | 1754-0-4354 | | 1 | |
| 4-fold, white glass | – | 1724-280 | 1754-0-4440 | | 1 | |
| 4-fold, entrée-grey | – | 1724-291-500 | 1754-0-4474 | | 1 | |
| 4-fold, château-black | – | 1724-295-500 | 1754-0-4494 | | 1 | |
| 4-fold, chalet-white | – | 1724-296-500 | 1754-0-4489 | | 1 | |
| 4-fold, foyer-red | – | 1724-297-500 | 1754-0-4479 | | 1 | |
| 4-fold, maison-beige | – | 1724-299-500 | 1754-0-4484 | | 1 | |
| 5-fold, black | – | 1725-281 | 1754-0-4413 | | 1 | |
| 5-fold, brown glass | – | 1725-283 | 1754-0-4547 | | 1 | |
| 5-fold, davos/studio white | – | 1725-284 | 1754-0-4347 | | 1 | |
| 5-fold, yellow | – | 1725-285 | 1754-0-4349 | | 1 | |
| 5-fold, green | – | 1725-286 | 1754-0-4351 | | 1 | |
| 5-fold, red | – | 1725-287 | 1754-0-4353 | | 1 | |
| 5-fold, blue | – | 1725-288 | 1754-0-4355 | | 1 | |
| 5-fold, white glass | – | 1725-280 | 1754-0-4441 | | 1 | |
| 5-fold, entrée-grey | – | 1725-291-500 | 1754-0-4475 | | 1 | |
| 5-fold, château-black | – | 1725-295-500 | 1754-0-4495 | | 1 | |
| 5-fold, chalet-white | – | 1725-296-500 | 1754-0-4490 | | 1 | |
| 5-fold, foyer-red | – | 1725-297-500 | 1754-0-4480 | | 1 | |
| 5-fold, maison-beige | – | 1725-299-500 | 1754-0-4485 | | 1 | |


1721-838-500

## Frames, Dynasty®

NEW

For vertical and horizontal installation.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1-fold, polished brass ivory | – | 1721-838-500 | 1754-0-4560 | | 1 | |
| 1-fold, polished brass anthracite | – | 1721-835-500 | 1754-0-4565 | | 1 | |
| 1-fold, polished brass decor ivory | – | 1721-836-500 | 1754-0-4570 | | 1 | |
| 1-fold, polished brass decor anthacite | – | 1721-833-500 | 1754-0-4575 | | 1 | |
| 1-fold, antique brass ivory | – | 1721-848-500 | 1754-0-4580 | | 1 | |
| 1-fold, antique brass anthracite | – | 1721-845-500 | 1754-0-4585 | | 1 | |
| 1-fold, antique brass decor ivory | – | 1721-846-500 | 1754-0-4590 | | 1 | |
| 1-fold, antique brass decor anthacite | – | 1721-843-500 | 1754-0-4595 | | 1 | |
| 1-fold, ivory | – | 1721-832-500 | 1754-0-4600 | | 1 | |
| 1-fold, anthracite | – | 1721-831-500 | 1754-0-4605 | | 1 | |
| 2-fold, polished brass ivory | – | 1722-838-500 | 1754-0-4561 | | 1 | |
| 2-fold, polished brass anthracite | – | 1722-835-500 | 1754-0-4566 | | 1 | |
| 2-fold, polished brass decor ivory | – | 1722-836-500 | 1754-0-4571 | | 1 | |
| 2-fold, polished brass decor anthacite | – | 1722-833-500 | 1754-0-4576 | | 1 | |
| 2-fold, antique brass ivory | – | 1722-848-500 | 1754-0-4581 | | 1 | |
| 2-fold, antique brass anthracite | – | 1722-845-500 | 1754-0-4586 | | 1 | |
| 2-fold, antique brass decor ivory | – | 1722-846-500 | 1754-0-4591 | | 1 | |
| 2-fold, antique brass decor anthacite | – | 1722-843-500 | 1754-0-4596 | | 1 | |
| 2-fold, ivory | – | 1722-832-500 | 1754-0-4601 | | 1 | |
| 2-fold, anthracite | – | 1722-831-500 | 1754-0-4606 | | 1 | |
| 3-fold, polished brass ivory | – | 1723-838-500 | 1754-0-4562 | | 1 | |
| 3-fold, polished brass anthracite | – | 1723-835-500 | 1754-0-4567 | | 1 | |
| 3-fold, polished brass decor ivory | – | 1723-836-500 | 1754-0-4572 | | 1 | |
| 3-fold, polished brass decor anthacite | – | 1723-833-500 | 1754-0-4577 | | 1 | |
| 3-fold, antique brass ivory | – | 1723-848-500 | 1754-0-4582 | | 1 | |
| 3-fold, antique brass anthracite | – | 1723-845-500 | 1754-0-4587 | | 1 | |
| 3-fold, antique brass decor ivory | – | 1723-846-500 | 1754-0-4592 | | 1 | |
| 3-fold, antique brass decor anthacite | – | 1723-843-500 | 1754-0-4597 | | 1 | |
| 3-fold, ivory | – | 1723-832-500 | 1754-0-4602 | | 1 | |
| 3-fold, anthracite | – | 1723-831-500 | 1754-0-4607 | | 1 | |

Continuation of table „Frames, Dynasty®“ on next page

Continuation of table „Frames, Dynasty®“

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 4-fold, polished brass ivory | – | 1724-838-500 | 1754-0-4563 | | 1 | |
| 4-fold, polished brass anthracite | – | 1724-835-500 | 1754-0-4568 | | 1 | |
| 4-fold, polished brass decor ivory | – | 1724-836-500 | 1754-0-4573 | | 1 | |
| 4-fold, polished brass decor anthacite | – | 1724-833-500 | 1754-0-4578 | | 1 | |
| 4-fold, antique brass ivory | – | 1724-848-500 | 1754-0-4583 | | 1 | |
| 4-fold, antique brass anthracite | – | 1724-845-500 | 1754-0-4588 | | 1 | |
| 4-fold, antique brass decor ivory | – | 1724-846-500 | 1754-0-4593 | | 1 | |
| 4-fold, antique brass decor anthacite | – | 1724-843-500 | 1754-0-4598 | | 1 | |
| 4-fold, ivory | – | 1724-832-500 | 1754-0-4603 | | 1 | |
| 4-fold, anthracite | – | 1724-831-500 | 1754-0-4608 | | 1 | |
| 5-fold, polished brass ivory | – | 1725-838-500 | 1754-0-4564 | | 1 | |
| 5-fold, polished brass anthracite | – | 1725-835-500 | 1754-0-4569 | | 1 | |
| 5-fold, polished brass decor ivory | – | 1725-836-500 | 1754-0-4574 | | 1 | |
| 5-fold, polished brass decor anthacite | – | 1725-833-500 | 1754-0-4579 | | 1 | |
| 5-fold, antique brass ivory | – | 1725-848-500 | 1754-0-4584 | | 1 | |
| 5-fold, antique brass anthracite | – | 1725-845-500 | 1754-0-4589 | | 1 | |
| 5-fold, antique brass decor ivory | – | 1725-846-500 | 1754-0-4594 | | 1 | |
| 5-fold, antique brass decor anthacite | – | 1725-843-500 | 1754-0-4599 | | 1 | |
| 5-fold, ivory | – | 1725-832-500 | 1754-0-4604 | | 1 | |
| 5-fold, anthracite | – | 1725-831-500 | 1754-0-4609 | | 1 | |

# System pro E comfort MISTRAL41.
# Create your own masterpiece.

Freedom is an essential factor for innovation, modernization and unlimited possibilities. The new System pro E comfort MISTRAL41 series of consumer units offer that freedom in both flush and wall-mounted versions. These IP41-rated units have been designed from scratch to enhance the unique features you expect from ABB. Ample internal space, elegant design and a unified range of accessories give you the freedom and flexibility to create high-quality work you can be proud of. For more information visit **www.abb.com/lowvoltage**





# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Busch-triton®

With freely programmable switch rockers, backlit label fields and IR sensor Busch-triton® is ideal for any application and with its elegant design it is commonly installed in hotels and public areas. Busch-triton® is equipped with an integrated bus coupler and IR receiver. The unit composed of control element and integrated bus coupler now really has everything required to control building systems elegantly and comfortably.





01 1/2gang control element with rear-illuminated labelling area and IR reception

02 3/6gang control element with rear-illuminated labelling area and IR reception

03 5/10gang control element with rear-illuminated labelling area and IR reception

01



**Function**
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

**Features**
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

02



**Function**
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

**Features**
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable

03



**Function**
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

**Features**
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Busch-triton®

**Colour-coordinated.**
The Busch-triton® is available in five stunning colours, offering exactly the right ambience for any environment. The colours offer exactly the right accent to the carat®, impuls, alpha and future® linear ranges – such as the use of the colour-coordinated socket outlets or motion detectors.



01



**Function**
LCD display room temperature controller | Comfort | Stand-by | Night operation | Frost protection | Heating | Cooling | Fan control | Switching | Dimming | Blinds | Value | 13 freely programmable IR channels | 8 light scenes

**Features**
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

02



**Function**
LCD display room temperature controller | Comfort | Stand-by | Night operation | Frost protection | Heating | Cooling | Fan control | Switching | Dimming | Blinds | Value | 13 freely programmable IR channels | 8 light scenes

**Features**
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

01 3/6gang control element with rear-illuminated labelling field, integrated room thermostat, LCD display and IR reception

02 5/10gang control element with rear-illuminated labelling field, integrated room thermostat, LCD display and IR reception



6320/10-24G-500

## Busch-triton® Control Element, 1/2-fold, FM

With intergrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| platinum | – | 6320/10-20-500 | 6320-0-0002 | | 1 | |
| studio white,high gloss | – | 6320/10-24G-500 | 6320-0-0004 | | 1 | |
| palladium | – | 6320/10-260-500 | 6320-0-0010 | | 1 | |
| | | | | | | |
| impuls | | | | | | |
| champagne metallic | – | 6320/10-79-500 | 6320-0-0006 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| aluminium silver | – | 6320/10-83-500 | 6320-0-0008 | | 1 | |



6320/30-24G-500

## Busch-triton® Control Element, 3/6-fold, FM

With intergrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| platinum | – | 6320/30-20-500 | 6320-0-0012 | | 1 | |
| studio white,high gloss | – | 6320/30-24G-500 | 6320-0-0014 | | 1 | |
| palladium | – | 6320/30-260-500 | 6320-0-0020 | | 1 | |
| | | | | | | |
| impuls | | | | | | |
| champagne metallic | – | 6320/30-79-500 | 6320-0-0016 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| aluminium silver | – | 6320/30-83-500 | 6320-0-0018 | | 1 | |



6320/50-24G-500

## Busch-triton® Control Element, 5/10-fold, FM

With intergrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| platinum | – | 6320/50-20-500 | 6320-0-0032 | | 1 | |
| studio white,high gloss | – | 6320/50-24G-500 | 6320-0-0034 | | 1 | |
| palladium | – | 6320/50-260-500 | 6320-0-0040 | | 1 | |
| | | | | | | |
| impuls | | | | | | |
| champagne metallic | – | 6320/50-79-500 | 6320-0-0036 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| aluminium silver | – | 6320/50-83-500 | 6320-0-0038 | | 1 | |



6321/38-24G-500

## Busch-triton® Control Element with Room Thermostat and 3/6-fold Switch Sensor, FM

NEW

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control. IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| platinum | – | 6321/38-20-500 | 6320-0-0052 | | 1 | |
| studio white, high gloss | – | 6321/38-24G-500 | 6320-0-0054 | | 1 | |
| palladium | – | 6321/38-260-500 | 6320-0-0060 | | 1 | |
| | | | | | | |
| impuls | | | | | | |
| champagne metallic | – | 6321/38-83-500 | 6320-0-0056 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| aluminium silver | – | 6321/38-83-500 | 6320-0-0058 | | 1 | |



6321/58-24G-500

## Busch-triton® Control Element with Room Thermostat and 5/10-fold Switch Sensor, FM

NEW

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/ Green/ OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 159 mm x 90 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| platinum | – | 6321/58-20-500 | 6320-0-0062 | | 1 | |
| studio white, high gloss | – | 6321/58-24G-500 | 6320-0-0064 | | 1 | |
| palladium | – | 6321/58-260-500 | 6320-0-0070 | | 1 | |
| | | | | | | |
| impuls | | | | | | |
| champagne metallic | – | 6321/58-79-500 | 6320-0-0066 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| aluminium silver | – | 6321/58-83-500 | 6320-0-0068 | | 1 | |



6010-25-500

## Infra-Red Hand Held Transmitter

For infra-red receiver and KNX flush-mounted infra-red interface. Switching and dimming of up to 10 consumers in 2 groups (1-5/6-10). Programming and selection of 2 MEMO memories per group is possible. Power supply: 4 alkaline manganese batteries, IEC LR03 (microcell) not included in scope of supply Detection range: frontal 15 m.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6010-25-500 | 6020-0-1133 | | 1 | |

# Intelligent Building Solutions
# ABB i-bus® KNX – Operation – Push Button Coupling Unit

The push-button coupling unit with a centre position offers maximum flexibility. Installed in a flush-mounted wall box, it accepts switch rockers from conventional switch ranges* like a completely standard flush-mounted insert. Covers from all conventional ranges can now be used for KNX. This offers maximum freedom in the selection of the switch range and makes retrofitting easier.

01



02



03



04



**Features**

- Easy mounting and uncomplicated commissioning
- All flush-mounted switch ranges* can be used for the ABB i-bus® KNX
- Affordable solution for renovations
- Status/orientation light (red/green/OFF) (only with 1gang push-button/switches)
- Integration in surface-mounted water protected units

01 Push-button coupler 2gang with integrated bus coupler
02 Push-button coupler 4gang with integrated bus coupler
03 Push-button coupler 2gang for ocean with integrated bus coupler
04 Push-button coupler 4gang for ocean with integrated bus coupler



**Design without limits.** The push-button coupling unit includes the complete range* of switches for KNX. Switch rockers from all switch ranges can now be converted to KNX push buttons, which not only switch on and off but also dim or show the status with an LED (6108/01 and 6108/04 only). 1gang and 2gang models for single and 2gang switch rockers are available.

**KNX – water protected**
The push-button coupling unit also allows special products to be used for KNX. Special models for water-protected installation allow covers from, for example, the ocean® surface-mounted range to be used. This means that KNX sensors can also be safely installed in a cellar, outside on a patio or in commercial applications. Temperature range: -25 °C to 45 °C

*except impuls, basic55® and All Weather 44 Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.



6108/01-500

## KNX Switch Connection Unit, FM

To be discontinued

with intergrated bus coupling unit. With neutral position. Suitable for conventional switch rockers of the following Busch-Jaeger design ranges: Busch-Duro 2000® SI/SI Linear, Reflex SI/SI Linear, future® linear, alpha, solo®, Busch-axcent®, carat® and pure stainless steel*. One freely programmable red/green LED (only 6108/01-500).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1/2-fold | – | 6108/01-500 | 6133-0-0207 | | 1 | |
| 2/4-fold | – | 6108/02-500 | 6133-0-0209 | | 1 | |



6108/04-500

## KNX Switch Connection Unit for design ocean® (IP44), FM

To be discontinued

with intergrated bus coupling unit. For integration into SM-housing of ocean® range*.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1/2-fold | – | 6108/04-500 | 6133-0-0211 | | 1 | |
| 2/4-fold | – | 6108/05-500 | 6133-0-0213 | | 1 | |

*All available switch rockers and additional information about Busch-Jaeger design ranges under www.busch-jaeger.com



6108/06-AP-500

## KNX Switch Connection Unit for design ocean® (IP44), FM

NEW

For contacting conventional 1gang rocker switches. With middle position. For inserting in the ocean surface-mounted housing. The bus can be connected via enclosed terminal block.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1/2-fold | – | 6108/06-AP-500 | 6133-0-0225 | | 1 | |
| 2/4-fold | – | 6108/07-AP-500 | 6133-0-0227 | | 1 | |



6108/06-500

## Push-button coupling 2gang with integrated bus coupler

NEW

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6108/06-500 | 6133-0-0221 | | 1 | |



SR-1-84

## Rocker 1gang, without printing

NEW

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | SR-1-212 | 6220-0-0182 | | 1 | |
| alpine white | – | SR-1-214 | 6220-0-0183 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | SR-1-81 | 6220-0-0137 | | 1 | |
| ivory | – | SR-1-82 | 6220-0-0516 | | 1 | |
| aluminium silver | – | SR-1-83 | 6220-0-0138 | | 1 | |
| studio white | – | SR-1-84 | 6220-0-0139 | | 1 | |
| studio white matt | – | SR-1-884 | 6220-0-0601 | | 1 | |
| black, matt | – | SR-1-885 | 6220-0-0618 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | SR-1-82 | 6220-0-0516 | | 1 | |
| studio white | – | SR-1-84 | 6220-0-0139 | | 1 | |
| grey metallic | – | SR-1-803 | 6220-0-0550 | | 1 | |
| yellow | – | SR-1-815 | 6220-0-0567 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | SR-1-84 | 6220-0-0139 | | 1 | |
| chalet white | – | SR-1-896 | 6220-0-0584 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | SR-1-866 | 6220-0-0533 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | SR-1-81 | 6220-0-0137 | | 1 | |
| ivory | – | SR-1-82 | 6220-0-0516 | | 1 | |
| studio white | – | SR-1-84 | 6220-0-0139 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | SR-1-81 | 6220-0-0137 | | 1 | |
| ivory | – | SR-1-82 | 6220-0-0516 | | 1 | |
| antique brass | – | SR-1-840 | 6220-0-0371 | | 1 | |


SRL-1-84

## Rocker 1gang, with „Light“ icon

NEW

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | SRL-1-212 | 6220-0-0184 | | 1 | |
| alpine white | – | SRL-1-214 | 6220-0-0185 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | SRL-1-81 | 6220-0-0140 | | 1 | |
| ivory | – | SRL-1-82 | 6220-0-0517 | | 1 | |
| aluminium silver | – | SRL-1-83 | 6220-0-0141 | | 1 | |
| studio white | – | SRL-1-84 | 6220-0-0142 | | 1 | |
| studio white matt | – | SRL-1-884 | 6220-0-0602 | | 1 | |
| black, matt | – | SRL-1-885 | 6220-0-0619 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | SRL-1-82 | 6220-0-0517 | | 1 | |
| studio white | – | SRL-1-84 | 6220-0-0142 | | 1 | |
| grey metallic | – | SRL-1-803 | 6220-0-0551 | | 1 | |
| yellow | – | SRL-1-815 | 6220-0-0568 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | SRL-1-84 | 6220-0-0142 | | 1 | |
| chalet white | – | SRL-1-896 | 6220-0-0585 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | SRL-1-866 | 6220-0-0534 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | SRL-1-81 | 6220-0-0140 | | 1 | |
| ivory | – | SRL-1-82 | 6220-0-0517 | | 1 | |
| studio white | – | SRL-1-84 | 6220-0-0142 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | SRL-1-81 | 6220-0-0140 | | 1 | |
| ivory | – | SRL-1-82 | 6220-0-0517 | | 1 | |
| antique brass | – | SRL-1-840 | 6220-0-0372 | | 1 | |



SRB-1-84

## Rocker 1gang, with „Blind“ icon

NEW

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | SRB-1-212 | 6220-0-0186 | | 1 | |
| alpine white | – | SRB-1-214 | 6220-0-0187 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | SRB-1-81 | 6220-0-0143 | | 1 | |
| ivory | – | SRB-1-82 | 6220-0-0518 | | 1 | |
| aluminium silver | – | SRB-1-83 | 6220-0-0144 | | 1 | |
| studio white | – | SRB-1-84 | 6220-0-0145 | | 1 | |
| studio white matt | – | SRB-1-884 | 6220-0-0603 | | 1 | |
| black, matt | – | SRB-1-885 | 6220-0-0620 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | SRB-1-82 | 6220-0-0518 | | 1 | |
| studio white | – | SRB-1-84 | 6220-0-0145 | | 1 | |
| grey metallic | – | SRB-1-803 | 6220-0-0552 | | 1 | |
| yellow | – | SRB-1-815 | 6220-0-0569 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | SRB-1-84 | 6220-0-0145 | | 1 | |
| chalet white | – | SRB-1-896 | 6220-0-0586 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | SRB-1-866 | 6220-0-0535 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | SRB-1-81 | 6220-0-0143 | | 1 | |
| ivory | – | SRB-1-82 | 6220-0-0518 | | 1 | |
| studio white | – | SRB-1-84 | 6220-0-0145 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | SRB-1-81 | 6220-0-0143 | | 1 | |
| ivory | – | SRB-1-82 | 6220-0-0518 | | 1 | |
| antique brass | – | SRB-1-840 | 6220-0-0373 | | 1 | |


SRS-1-84

## Rocker 1gang, with „Scene“ icon

NEW

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | SRS-1-212 | 6220-0-0188 | | 1 | |
| alpine white | – | SRS-1-214 | 6220-0-0189 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | SRS-1-81 | 6220-0-0146 | | 1 | |
| ivory | – | SRS-1-82 | 6220-0-0519 | | 1 | |
| aluminium silver | – | SRS-1-83 | 6220-0-0147 | | 1 | |
| studio white | – | SRS-1-84 | 6220-0-0148 | | 1 | |
| studio white matt | – | SRS-1-884 | 6220-0-0604 | | 1 | |
| black, matt | – | SRS-1-885 | 6220-0-0621 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | SRS-1-82 | 6220-0-0519 | | 1 | |
| studio white | – | SRS-1-84 | 6220-0-0148 | | 1 | |
| grey metallic | – | SRS-1-803 | 6220-0-0553 | | 1 | |
| yellow | – | SRS-1-815 | 6220-0-0570 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | SRS-1-84 | 6220-0-0148 | | 1 | |
| chalet white | – | SRS-1-896 | 6220-0-0587 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | SRS-1-866 | 6220-0-0536 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | SRS-1-81 | 6220-0-0146 | | 1 | |
| ivory | – | SRS-1-82 | 6220-0-0519 | | 1 | |
| studio white | – | SRS-1-84 | 6220-0-0148 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | SRS-1-81 | 6220-0-0146 | | 1 | |
| ivory | – | SRS-1-82 | 6220-0-0519 | | 1 | |
| antique brass | – | SRS-1-840 | 6220-0-0374 | | 1 | |



SRD-1-84

## Rocker 1gang, with „Dimmer“ icon

NEW

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | SRD-1-212 | 6220-0-0190 | | 1 | |
| alpine white | – | SRD-1-214 | 6220-0-0191 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | SRD-1-81 | 6220-0-0149 | | 1 | |
| ivory | – | SRD-1-82 | 6220-0-0520 | | 1 | |
| aluminium silver | – | SRD-1-83 | 6220-0-0150 | | 1 | |
| studio white | – | SRD-1-84 | 6220-0-0151 | | 1 | |
| studio white matt | – | SRD-1-884 | 6220-0-0605 | | 1 | |
| black, matt | – | SRD-1-885 | 6220-0-0622 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | SRD-1-82 | 6220-0-0520 | | 1 | |
| studio white | – | SRD-1-84 | 6220-0-0151 | | 1 | |
| grey metallic | – | SRD-1-803 | 6220-0-0554 | | 1 | |
| yellow | – | SRD-1-815 | 6220-0-0571 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | SRD-1-84 | 6220-0-0151 | | 1 | |
| chalet white | – | SRD-1-896 | 6220-0-0588 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | SRD-1-866 | 6220-0-0537 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | SRD-1-81 | 6220-0-0149 | | 1 | |
| ivory | – | SRD-1-82 | 6220-0-0520 | | 1 | |
| studio white | – | SRD-1-84 | 6220-0-0151 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | SRD-1-81 | 6220-0-0149 | | 1 | |
| ivory | – | SRD-1-82 | 6220-0-0520 | | 1 | |
| antique brass | – | SRD-1-840 | 6220-0-0375 | | 1 | |



6108/07-500

## Push-button coupling 4gang with integrated bus coupler

NEW

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6108/07-500 | 6133-0-0223 | | 1 | |

# ABB i-bus® KNX – Operation – Push Button Coupling Unit



SR-2-84



SRB-2-84

| Availibility May 2016 | | | Rocker 2gang left/right, without printing NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | | Rocker 2gang left/right, with „Blind“ icon NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | |
|---|---|---|---|---|---|---|---|---|
| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
| | | Reflex SI | | | | | | |
| | | white | SR-2-212 | 6220-0-0192 | | SRB-2-212 | 6220-0-0196 | |
| | | alpine white | SR-2-214 | 6220-0-0193 | | SRB-2-214 | 6220-0-0197 | |
| | | | | | | | | |
| | | future® linear | | | | | | |
| | | anthracite | SR-2-81 | 6220-0-0152 | | SRB-2-81 | 6220-0-0158 | |
| | | ivory | SR-2-82 | 6220-0-0521 | | SRB-2-82 | 6220-0-0523 | |
| | | aluminium silver | SR-2-83 | 6220-0-0153 | | SRB-2-83 | 6220-0-0159 | |
| | | studio white | SR-2-84 | 6220-0-0154 | | SRB-2-84 | 6220-0-0160 | |
| | | studio white matt | SR-2-884 | 6220-0-0606 | | SRB-2-884 | 6220-0-0608 | |
| | | black, matt | SR-2-885 | 6220-0-0623 | | SRB-2-885 | 6220-0-0625 | |
| | | | | | | | | |
| | | solo® | | | | | | |
| | | ivory | SR-2-82 | 6220-0-0521 | | SRB-2-82 | 6220-0-0523 | |
| | | studio white | SR-2-84 | 6220-0-0154 | | SRB-2-84 | 6220-0-0160 | |
| | | grey metallic | SR-2-803 | 6220-0-0555 | | SRB-2-803 | 6220-0-0557 | |
| | | yellow | SR-2-815 | 6220-0-0572 | | SRB-2-815 | 6220-0-0574 | |
| | | | | | | | | |
| | | Busch-axcent® | | | | | | |
| | | studio white | SR-2-84 | 6220-0-0154 | | SRB-2-84 | 6220-0-0160 | |
| | | chalet white | SR-2-896 | 6220-0-0589 | | SRB-2-896 | 6220-0-0591 | |
| | | | | | | | | |
| | | pure stainless steel | | | | | | |
| | | stainless steel | SR-2-866 | 6220-0-0538 | | SRB-2-866 | 6220-0-0540 | |
| | | | | | | | | |
| | | carat® | | | | | | |
| | | anthracite | SR-2-81 | 6220-0-0152 | | SRB-2-81 | 6220-0-0158 | |
| | | ivory | SR-2-82 | 6220-0-0521 | | SRB-2-82 | 6220-0-0523 | |
| | | studio white | SR-2-84 | 6220-0-0154 | | SRB-2-84 | 6220-0-0160 | |
| | | | | | | | | |
| | | Dynasty® | | | | | | |
| | | anthracite | SR-2-81 | 6220-0-0152 | | SRB-2-81 | 6220-0-0158 | |
| | | ivory | SR-2-82 | 6220-0-0521 | | SRB-2-82 | 6220-0-0523 | |
| | | antique brass | SR-2-840 | 6220-0-0376 | | SRB-2-840 | 6220-0-0378 | |

# ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRL-2-L-84



SRL-2-R-84

| Availibility May 2016 | | | Rocker 2gang left, with „Light“ icon NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | | Rocker 2gang right, with „Light“ icon NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | |
|---|---|---|---|---|---|---|---|---|
| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
| | | Reflex SI | | | | | | |
| | | white | SRL-2-L-212 | 6220-0-0194 | | SRL-2-R-212 | 6220-0-0202 | |
| | | alpine white | SRL-2-L-214 | 6220-0-0195 | | SRL-2-R-214 | 6220-0-0203 | |
| | | | | | | | | |
| | | future® linear | | | | | | |
| | | anthracite | SRL-2-L-81 | 6220-0-0155 | | SRL-2-R-81 | 6220-0-0167 | |
| | | ivory | SRL-2-L-82 | 6220-0-0522 | | SRL-2-R-82 | 6220-0-0527 | |
| | | aluminium silver | SRL-2-L-83 | 6220-0-0156 | | SRL-2-R-83 | 6220-0-0168 | |
| | | studio white | SRL-2-L-84 | 6220-0-0157 | | SRL-2-R-84 | 6220-0-0169 | |
| | | studio white matt | SRL-2-L-884 | 6220-0-0607 | | SRL-2-R-884 | 6220-0-0612 | |
| | | black, matt | SRL-2-L-885 | 6220-0-0624 | | SRL-2-R-885 | 6220-0-0629 | |
| | | | | | | | | |
| | | solo® | | | | | | |
| | | ivory | SRL-2-L-82 | 6220-0-0522 | | SRL-2-R-82 | 6220-0-0527 | |
| | | studio white | SRL-2-L-84 | 6220-0-0157 | | SRL-2-R-84 | 6220-0-0169 | |
| | | grey metallic | SRL-2-L-803 | 6220-0-0556 | | SRL-2-R-803 | 6220-0-0561 | |
| | | yellow | SRL-2-L-815 | 6220-0-0573 | | SRL-2-R-815 | 6220-0-0578 | |
| | | | | | | | | |
| | | Busch-axcent® | | | | | | |
| | | studio white | SRL-2-L-84 | 6220-0-0157 | | SRL-2-R-84 | 6220-0-0169 | |
| | | chalet white | SRL-2-L-896 | 6220-0-0590 | | SRL-2-R-896 | 6220-0-0595 | |
| | | | | | | | | |
| | | pure stainless steel | | | | | | |
| | | stainless steel | SRL-2-L-866 | 6220-0-0539 | | SRL-2-R-866 | 6220-0-0544 | |
| | | | | | | | | |
| | | carat® | | | | | | |
| | | anthracite | SRL-2-L-81 | 6220-0-0155 | | SRL-2-R-81 | 6220-0-0167 | |
| | | ivory | SRL-2-L-82 | 6220-0-0522 | | SRL-2-R-82 | 6220-0-0527 | |
| | | studio white | SRL-2-L-84 | 6220-0-0157 | | SRL-2-R-84 | 6220-0-0169 | |
| | | | | | | | | |
| | | Dynasty® | | | | | | |
| | | anthracite | SRL-2-L-81 | 6220-0-0155 | | SRL-2-R-81 | 6220-0-0167 | |
| | | ivory | SRL-2-L-82 | 6220-0-0522 | | SRL-2-R-82 | 6220-0-0527 | |
| | | antique brass | SRL-2-L-840 | 6220-0-0377 | | SRL-2-R-840 | 6220-0-0381 | |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRS-2-L-84



SRS-2-R-84

| Availibility May 2016 | | | Rocker 2gang left, with „Scene“ icon NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | | Rocker 2gang right, with „Scene“ icon NEW<br>As cover for KNX 4gang push-button coupling unit (6108/07-500). | | |
|---|---|---|---|---|---|---|---|---|
| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
| | | Reflex SI | | | | | | |
| | | white | SRS-2-L-212 | 6220-0-0198 | | SRS-2-R-212 | 6220-0-0206 | |
| | | alpine white | SRS-2-L-214 | 6220-0-0199 | | SRS-2-R-214 | 6220-0-0207 | |
| | | | | | | | | |
| | | future® linear | | | | | | |
| | | anthracite | SRS-2-L-81 | 6220-0-0161 | | SRS-2-R-81 | 6220-0-0173 | |
| | | ivory | SRS-2-L-82 | 6220-0-0524 | | SRS-2-R-82 | 6220-0-0528 | |
| | | aluminium silver | SRS-2-L-83 | 6220-0-0162 | | SRS-2-R-83 | 6220-0-0174 | |
| | | studio white | SRS-2-L-84 | 6220-0-0163 | | SRS-2-R-84 | 6220-0-0175 | |
| | | studio white matt | SRS-2-L-884 | 6220-0-0609 | | SRS-2-R-884 | 6220-0-0613 | |
| | | black, matt | SRS-2-L-885 | 6220-0-0626 | | SRS-2-R-885 | 6220-0-0630 | |
| | | | | | | | | |
| | | solo® | | | | | | |
| | | ivory | SRS-2-L-82 | 6220-0-0524 | | SRS-2-R-82 | 6220-0-0528 | |
| | | studio white | SRS-2-L-84 | 6220-0-0163 | | SRS-2-R-84 | 6220-0-0175 | |
| | | grey metallic | SRS-2-L-803 | 6220-0-0558 | | SRS-2-R-803 | 6220-0-0562 | |
| | | yellow | SRS-2-L-815 | 6220-0-0575 | | SRS-2-R-815 | 6220-0-0579 | |
| | | | | | | | | |
| | | Busch-axcent® | | | | | | |
| | | studio white | SRS-2-L-84 | 6220-0-0163 | | SRS-2-R-84 | 6220-0-0175 | |
| | | chalet white | SRS-2-L-896 | 6220-0-0592 | | SRS-2-R-896 | 6220-0-0596 | |
| | | | | | | | | |
| | | pure stainless steel | | | | | | |
| | | stainless steel | SRS-2-L-866 | 6220-0-0541 | | SRS-2-R-866 | 6220-0-0545 | |
| | | | | | | | | |
| | | carat® | | | | | | |
| | | anthracite | SRS-2-L-81 | 6220-0-0161 | | SRS-2-R-81 | 6220-0-0173 | |
| | | ivory | SRS-2-L-82 | 6220-0-0524 | | SRS-2-R-82 | 6220-0-0528 | |
| | | studio white | SRS-2-L-84 | 6220-0-0163 | | SRS-2-R-84 | 6220-0-0175 | |
| | | | | | | | | |
| | | Dynasty® | | | | | | |
| | | anthracite | SRS-2-L-81 | 6220-0-0161 | | SRS-2-R-81 | 6220-0-0173 | |
| | | ivory | SRS-2-L-82 | 6220-0-0524 | | SRS-2-R-82 | 6220-0-0528 | |
| | | antique brass | SRS-2-L-840 | 6220-0-0379 | | SRS-2-R-840 | 6220-0-0382 | |

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRD-2-L-84



SRD-2-R-84

| Availibility May 2016 | | | Rocker 2gang left, with „Dimmer“ icon NEW | | | Rocker 2gang right, with „Dimmer“ icon NEW | | |
|---|---|---|---|---|---|---|---|---|
| | | | As cover for KNX 4gang push-button coupling unit (6108/07-500). | | | As cover for KNX 4gang push-button coupling unit (6108/07-500). | | |
| Pack unit pc. | Weight 1 pc. kg | Description | Order details Type | Order code | Price 1 pc. € | Order details Type | Order code | Price 1 pc. € |
| | | Reflex SI | | | | | | |
| | | white | SRD-2-L-212 | 6220-0-0200 | | SRD-2-R-212 | 6220-0-0261 | |
| | | alpine white | SRD-2-L-214 | 6220-0-0201 | | SRD-2-R-214 | 6220-0-0262 | |
| | | | | | | | | |
| | | future® linear | | | | | | |
| | | anthracite | SRD-2-L-81 | 6220-0-0164 | | SRD-2-R-81 | 6220-0-0258 | |
| | | ivory | SRD-2-L-82 | 6220-0-0525 | | SRD-2-R-82 | 6220-0-0526 | |
| | | aluminium silver | SRD-2-L-83 | 6220-0-0165 | | SRD-2-R-83 | 6220-0-0259 | |
| | | studio white | SRD-2-L-84 | 6220-0-0166 | | SRD-2-R-84 | 6220-0-0260 | |
| | | studio white matt | SRD-2-L-884 | 6220-0-0610 | | SRD-2-R-884 | 6220-0-0611 | |
| | | black, matt | SRD-2-L-885 | 6220-0-0627 | | SRD-2-R-885 | 6220-0-0628 | |
| | | | | | | | | |
| | | solo® | | | | | | |
| | | ivory | SRD-2-L-82 | 6220-0-0525 | | SRD-2-R-82 | 6220-0-0526 | |
| | | studio white | SRD-2-L-84 | 6220-0-0166 | | SRD-2-R-84 | 6220-0-0260 | |
| | | grey metallic | SRD-2-L-803 | 6220-0-0559 | | SRD-2-R-803 | 6220-0-0560 | |
| | | yellow | SRD-2-L-815 | 6220-0-0576 | | SRD-2-R-815 | 6220-0-0577 | |
| | | | | | | | | |
| | | Busch-axcent® | | | | | | |
| | | studio white | SRD-2-L-84 | 6220-0-0166 | | SRD-2-R-84 | 6220-0-0260 | |
| | | chalet white | SRD-2-L-896 | 6220-0-0593 | | SRD-2-R-896 | 6220-0-0594 | |
| | | | | | | | | |
| | | pure stainless steel | | | | | | |
| | | stainless steel | SRD-2-L-866 | 6220-0-0542 | | SRD-2-R-866 | 6220-0-0543 | |
| | | | | | | | | |
| | | carat® | | | | | | |
| | | anthracite | SRD-2-L-81 | 6220-0-0164 | | SRD-2-R-81 | 6220-0-0258 | |
| | | ivory | SRD-2-L-82 | 6220-0-0525 | | SRD-2-R-82 | 6220-0-0526 | |
| | | studio white | SRD-2-L-84 | 6220-0-0166 | | SRD-2-R-84 | 6220-0-0260 | |
| | | | | | | | | |
| | | Dynasty® | | | | | | |
| | | anthracite | SRD-2-L-81 | 6220-0-0164 | | SRD-2-R-81 | 6220-0-0258 | |
| | | ivory | SRD-2-L-82 | 6220-0-0525 | | SRD-2-R-82 | 6220-0-0526 | |
| | | antique brass | SRD-2-L-840 | 6220-0-0380 | | SRD-2-R-840 | 6220-0-0383 | |



6108/08-500

## Room Temperature Controller, Commercial, FM

NEW

Room thermostat without „local operation“ incl. insert for centre plate for cooling element. For controlling commercially available valve drives. Can only be used with a cover plate 2114-xxx or 6541-xxx, with the exception of 6541-20. -21.-260 and -266. For control of up to 5-level ventilation actuators Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6108/08-500 | 6134-0-0308 | | 1 | |



6541-84

## Cover Plate for Room Temperature Controller

For room temperature controller, commercial.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| future® linear | | | | | | |
| anthracite | – | 6541-81 | 6599-0-2882 | | 10 | |
| savanna/ivory | – | 6541-82 | 6599-0-2832 | | 10 | |
| aluminium silver 1) | – | 6541-83 | 6599-0-2885 | | 10 | |
| davos/studio white | – | 6541-84 | 6599-0-2835 | | 10 | |
| studio white, matt 1) | – | 6541-884 | 6599-0-2962 | | 10 | |
| black matt 1) | – | 6541-885 | 6599-0-2967 | | 10 | |
| | | | | | | |
| solo® | | | | | | |
| savanna/ivory | – | 6541-82 | 6599-0-2832 | | 10 | |
| davos/studio white | – | 6541-84 | 6599-0-2835 | | 10 | |
| meteor/grey metallic 1) | – | 6541-803 | 6599-0-2940 | | 10 | |
| sahara/yellow | – | 6541-815 | 6599-0-2936 | | 10 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | 6541-81 | 6599-0-2882 | | 10 | |
| savanna/ivory | – | 6541-82 | 6599-0-2832 | | 10 | |
| davos/studio white | – | 6541-84 | 6599-0-2835 | | 10 | |
| | | | | | | |
| pure stainless steel 1) | | | | | | |
| stainless steel | – | 6541-866 | 6599-0-2924 | | 10 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| davos/studio white | – | 6541-84 | 6599-0-2835 | | 10 | |
| chalet-white | – | 6541-896 | 6599-0-2998 | | 10 | |

[1] Surface painted



6541-24

## Cover Plate for Temperature Controller, Commercial

For room temperature controller, commercial.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha | | | | | | |
| ivory | – | 6541-22G | 6599-0-2795 | | 10 | |
| studio white, matt | – | 6541-24 | 6599-0-1557 | | 10 | |
| studio white, high gloss | – | 6541-24G | 6599-0-2332 | | 10 | |
| platinum 1) | – | 6541-20 | 6599-0-1466 | | 10 | |
| bronze 1) | – | 6541-21 | 6599-0-1524 | | 10 | |
| palladium 1) | – | 6541-260 | 6599-0-2853 | | 10 | |
| titanium 1) | – | 6541-266 | 6599-0-2856 | | 10 | |
| | | | | | | |
| impuls | | | | | | |
| alpine white | – | 6541-74 | 6599-0-2076 | | 10 | |
| champagne metallic | – | 6541-79 | 6599-0-2142 | | 10 | |
| ivory | – | 6541-72 | 6599-0-2918 | | 10 | |
| studio white matt 2) | – | 6541-774 | 6599-0-2971 | | 10 | |
| black matt 2) | – | 6541-775 | 6599-0-2975 | | 10 | |
| blackberry 2) | – | 6541-777 | 6599-0-2933 | | 10 | |
| aluminium silver 2) | – | 6541-783 | 6599-0-2919 | | 10 | |

[1] Real metal surface
[2] Surface painted



2114-212

## Cover Plate for Temperature Controller, Commercial

For room temperature controller, commercial.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Busch-Duro 2000 SI | | | | | | |
| white (SI-Series) | – | 2114-212 | 6599-0-1193 | | 10 | |
| | | | | | | |
| Reflex SI | | | | | | |
| alpine white (SI-Series) | – | 2114-214-500 | 6599-0-3008 | | 10 | |




6108/18-500

## Room thermostat, heating/cooling operation

NEW

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. For controlling commercially available valve drives. With display of set-value temperature. Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6108/18-500 | 6134-0-0319 | | 1 | |



CP-RTC-84

## Cover plate for room thermostat

NEW

As cover for KNX room temperature controller (6108/18-500).

Availibility May 2016

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Reflex SI | | | | | | |
| white | – | CP-RTC-212 | 6220-0-0210 | | 1 | |
| alpine white | – | CP-RTC-214 | 6220-0-0211 | | 1 | |
| | | | | | | |
| future® linear | | | | | | |
| anthracite | – | CP-RTC-81 | 6220-0-0179 | | 1 | |
| ivory | – | CP-RTC-82 | 6220-0-0529 | | 1 | |
| aluminium silver | – | CP-RTC-83 | 6220-0-0180 | | 1 | |
| studio white | – | CP-RTC-84 | 6220-0-0181 | | 1 | |
| studio white matt | – | CP-RTC-884 | 6220-0-0614 | | 1 | |
| black, matt | – | CP-RTC-885 | 6220-0-0631 | | 1 | |
| | | | | | | |
| solo® | | | | | | |
| ivory | – | CP-RTC-82 | 6220-0-0529 | | 1 | |
| studio white | – | CP-RTC-84 | 6220-0-0181 | | 1 | |
| grey metallic | – | CP-RTC-803 | 6220-0-0563 | | 1 | |
| yellow | – | CP-RTC-815 | 6220-0-0580 | | 1 | |
| | | | | | | |
| Busch-axcent® | | | | | | |
| studio white | – | CP-RTC-84 | 6220-0-0181 | | 1 | |
| chalet white | – | CP-RTC-896 | 6220-0-0597 | | 1 | |
| | | | | | | |
| pure stainless steel | | | | | | |
| stainless steel | – | CP-RTC-866 | 6220-0-0546 | | 1 | |
| | | | | | | |
| carat® | | | | | | |
| anthracite | – | CP-RTC-81 | 6220-0-0179 | | 1 | |
| ivory | – | CP-RTC-82 | 6220-0-0529 | | 1 | |
| studio white | – | CP-RTC-84 | 6220-0-0181 | | 1 | |
| | | | | | | |
| Dynasty® | | | | | | |
| anthracite | – | CP-RTC-81 | 6220-0-0179 | | 1 | |
| ivory | – | CP-RTC-82 | 6220-0-0529 | | 1 | |
| antique brass | – | CP-RTC-840 | 6220-0-0384 | | 1 | |

# Modern light management.
# New Busch-Presence detectors KNX.

Saving Energy smart with an ultra slim design – detection quality without compromise.
The enlarged assortment includes solutions for offices, classrooms, warehouses and sports facilities. Harvesting the daylight and saving up to 40% energy, it is perfectly designed to meet EN15232:2012 and with 8, 12 and 24 meter, it guarantees a bigger detection area than before. The premium versions offers 4 separate channels, IR receiver and even includes a full room temperature controller. Find more information at **www.busch-jaeger.de/en/**







# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Millenium

The new Millenium collection is the first metal range to incorage the KNX system, the most intelligent way of managing spaces and optimizing performance in terms of energy savings. Millenium is based on a combinable concept which creates a very comprehensive range, suitable for any types of needs. This makes it the ideal collection for all types of homes, hotels, offices and shops.






| | |
|---|---|
| 01 | Switch Sensor 2gang KNX |
| 02 | Switch Sensor 4gang KNX |
| 03 | Switch Sensor 6gang KNX |
| 04 | Switch Sensor 6gang KNX with IR |
| 05 | Busch watchdog 180° KNX |
| 06 | Room Thermostat KNX |

01



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

02



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

03



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Millenium

**Wide range.** Millenium range offers special mounting plates for KNX sensors to reduce the height and improve the aesthetics for ultra slim design. The KNX sensors allow to replace the buttons with desired symbols in order to adjust the sensors to specific design and needs like light, blind, scene, RTC or fan coil. Millenium offers a wide and elegant choice of finishes in stainless steel material: from the Brush Stainless Steel, to the soft new touch given by the Silk Black, and the luxury of the sophisticated gold finishes, Matt Gold and Antique Gold.





04



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc. | 6gang sensor with IR.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

05



**Function**
Movement sensor with up to four channels.
Detection range: frontal: 6 m, lateral: 6 m
Detection angle: 180 °
Brightness limit value:
5 Lux - 150 Lux
Mounting height: 1.1 m

06



**Function**
Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode.

The Millenium range is only available in the following countries:
China, Dubai, India, Kuweit, Oman, Qatar, Saudi Arabia, Singapore, UAE and UK.
Frames and special mounting plates for KNX sensores have to ordered by:
ABB, S.A.
Low Voltage Products-Niessen,
Oiartzun / Spain
www.abb.es/niessen

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment.
Display elements: LCD showing operation modes.
Protection class (Device): IP 20
Temperature range (Device): – 5 °C to 45 °C



6125/20-981-500

## 2-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD72053-AN (6125/20-981-500) | 6115-0-0443 | | 1 | |



6126/20-981-500

## 4-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD74053-AN (6126/20-981-500) | 6116-0-0218 | | 1 | |



6129/20-981-500

## 6-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD76053-AN (6129/20-981-500) | 6118-0-0104 | | 1 | |



6129/21-981-500

## 6-fold sensor with IR

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD76153-AN (6129/21-981-500) | 6118-0-0107 | | 1 | |



6122/20-981-500

### Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm. Position for installation: vertical.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD70153-AN (6122/20-981-500) | 6132-0-0306 | | 1 | |



6124/08-981-500

### Room thermostat heating/cooling Fan Coil NEW

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | AMD70053-AN (6124/08-981-500) | 6134-0-0309 | | 1 | |



### Buttons with symbols

Buttons with symbols for Millenium control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

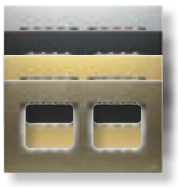
| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Ceiling light symbol | – | AM50701-GR (6123/20-500) | 6123-0-0001 | | 10 | |
| Blinds symbol | – | AM50702-GR (6123/21-500) | 6123-0-0002 | | 10 | |
| Scene symbol | – | AM50703-GR (6123/22-500) | 6123-0-0003 | | 10 | |
| Temperature symbol | – | AM50704-GR (6123/23-500) | 6123-0-0004 | | 10 | |
| Light symbol | – | AM50705-GR (6123/24-500) | 6123-0-0005 | | 10 | |
| Fan Coil symbol | – | AM50706-GR (6123/26-500) | 6123-0-0006 | | 10 | |



## Triple rocker / KNX frame 1 gang

Frame includes metal mounting plate. Dimensions 86 x 86 mm.

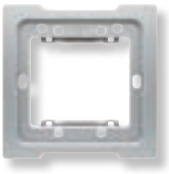
| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Stainless Steel | – | AMD5153-ST | | | 1 | |
| Silk Black | – | AMD5153-SB | | | 1 | |
| Matt Gold | – | AMD5153-MG | | | 1 | |
| Antique Gold | – | AMD5153-AG | | | 1 | |



## Triple rocker / KNX frame 2 gang

Frame includes metal mounting plate. Dimensions 86 x 147 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Stainless Steel | – | AMD5253-ST | | | 1 | |
| Silk Black | – | AMD5253-SB | | | 1 | |
| Matt Gold | – | AMD5253-MG | | | 1 | |
| Antique Gold | – | AMD5253-AG | | | 1 | |



AMD5053

## Special metal mounting plate for KNX sensors

Allows reduction height of KNX sensors to 1 mm. Only for following items: AMD72053-AN, AMD74053-AN, AMD76053-AN, AMD76153-AN.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Special metal mounting plate for KNX sensors 1 gang | – | AMD5053 | | | 1 | |



TR/U 1.1

## Transponder reader MIFARE

NEW

The „transponder reader“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.
It is equipped with one relay (4A @24 V AC/DC) and one input to be used for connecting external conventional card-holder (e.g. Millenium wiring accessories card-holder).
The output can be programmed in three different ways: „Linked to access control“, receiving in this case switching commands from the device itself (according to transponder card validation); being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices; „linked to card-holder“, that means that the relay is switched according to closing/opening internal input contact available on transponder reader.
The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX telegram (for example for DND/MUR purposes).
The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.
The transponder reader is available for ABB Millenium wiring accessories range.
For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | TR/U 1.1 | 6137-0-0022 | | 1 | |



TH/U 1.1

## Transponder holder MIFARE

NEW

The „transponder holder“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.
It is equipped with one relay (4A @24V AC/DC) and one binary input to be used for connecting external conventional push-button for switch, dimmer and shutter functionalities, or for example for connecting window contact or similar.
The output can be programmed as „Linked to access control“, receiving in this case switching commands from the device itself (according to card insertion/removal); or being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices.
The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX.
The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.
The transponder reader is available for ABB Millenium wiring accessories range.
For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | TH/U 1.1 | 6137-0-0023 | | 1 | |



TS/T 1

## Set of 10 transponder cards, MIFARE

NEW

The transponder card uses passive transponder technology operating in radio frequency (MIFARE technology), without the need for contact between the reader and the card itself. The transponder card is read by swiping it in front of the reader at a maximum distance of 20 mm (can be reduced according to installation environment).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | TS/T 1 | 6137-0-0024 | | 1 | |



SW MiniMAC 4.1

## MiniMAC software

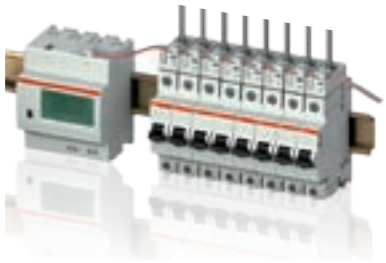
NEW

MiniMAC – Management and configuration software.
The management and configuration software ensures bidirectional communication with the access control system devices, allowing the system's configuration during its installation and its overall management and supervision.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SW MiniMAC 4.1 | 6137-0-0025 | | 1 | |

# CMS Current Measurement System.
## A new level of efficiency and availability.

To minimize energy and downtime costs, CMS offers an unique and highly efficient branch monitoring solution. The ultra-compact CMS sensors can be easily integrated in existing and new installations within power distribution units. This provides an unprecedented transparency of the consumption which increases the energy efficiency and service continuity of the plants.
**www.abb.com/lowvoltage**










| | |
|---|---|
| 01 | Switch Sensor 2gang KNX |
| 02 | Switch Sensor 4gang KNX |
| 03 | Switch Sensor 6gang KNX |
| 04 | Switch Sensor 6gang KNX with IR |
| 05 | Busch watchdog 180° KNX |
| 06 | Room Thermostat KNX |

01



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

02



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

03



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

# Intelligent Building Solutions
## ABB i-bus® KNX – Operation – Zenit

Zenit is based on a combinable concept which creates a very comprehensive range, suitable for any type of needs. Optimizing comfort, safety and efficiency of homes and buildings: Providing with complete comfort solutions to satisfy all type of needs and projects. Ensuring safety and protection of persons and goods. Saving energy by using only the amount of energy required.

Zenit offers two different mounting plates for KNX sensors corresponding to different market standards: VDE and NEMA.





04



**Function**
Switching | Dimming | Blinds | Sending values | Scenes etc. | 6gang sensor with IR.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

05



**Function**
Movement sensor with up to four channels.
Detection range: frontal: 6 m, lateral: 6 m
Detection angle: 180 °
Brightness limit value:
5 Lux - 150 Lux
Mounting height: 1.1 m

06



**Function**
Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode.

**Features**
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment.
Display elements: LCD showing operation modes.
Protection class (Device): IP 20
Temperature range (Device): – 5 °C to 45 °C

The Zenit VDE range is only available in the following countries:
Spain, Portugal, Russia, France
The Zenit NEMA range is only available in the following countries:
Latin America, Australia, Thailand, Vietnam.
Sensors, frames and special mounting plates for KNX sensores have to ordered by:
ABB, S.A.
Low Voltage Products-Niessen,
Oiartzun / Spain
www.abb.es/niessen



6125/98-509

## 1/2-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6125/98-509 | 6115-0-0444 | | 1 | |



N2221.2

## Cover Zenit 1/2-fold

Cover Zenit 1/2-fold. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit 1/2-fold – white | – | N2221.2 BL | 2CL0N222121 | | 1 | |
| Cover Zenit 1/2-fold – antrachite | – | N2221.2 AN | 2CL0N222128 | | 1 | |
| Cover Zenit 1/2-fold – silver | – | N2221.2 PL | 2CL0N222123 | | 1 | |



6126/98-509

## 2/4-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6126/98-509 | 6116-0-0219 | | 1 | |





N2221.4

## Cover Zenit 2/4-fold

Cover Zenit 2/4-fold. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit 2/4-fold – white | – | N2221.4 BL | 2CL0N222141 | | 1 | |
| Cover Zenit 2/4-fold – antrachite | – | N2221.4 AN | 2CL0N222148 | | 1 | |
| Cover Zenit 2/4-fold – silver | – | N2221.4 PL | 2CL0N222143 | | 1 | |



6129/96-509

### 3/6-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.)
Control element: Switch contacts. Display elements: LED to indicate the function. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 44 mm x 44 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6129/96-509 | 6118-0-0105 | | 1 | |



N2221.6

### Cover Zenit 3/6-fold

Cover Zenit 3/6-fold. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit 3/6 fold – white | – | N2221.6 BL | 2CL0N222161 | | 1 | |
| Cover Zenit 3/6 fold – antrachite | – | N2221.6 AN | 2CL0N222168 | | 1 | |
| Cover Zenit 3/6 fold – silver | – | N2221.6 PL | 2CL0N222163 | | 1 | |



6129/98-509

### 3/6-fold sensor with IR

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). With infrared.
Control element: Switch contacts. Display elements: LED to indicate the function.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6129/98-509 | 6118-0-0108 | | 1 | |



N2221.7

### Cover Zenit 3/6-fold with IR

Cover Zenit 3/6-fold with IR. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit 3/6 fold with IR – white | – | N2221.7 BL | 2CL0N222171 | | 1 | |
| Cover Zenit 3/6 fold with IR – antrachite | – | N2221.7 AN | 2CL0N222178 | | 1 | |
| Cover Zenit 3/6 fold with IR – silver | – | N2221.7 PL | 2CL0N222173 | | 1 | |



6124/88-509

## Room thermostat heating / cooling Fan Coil

NEW

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2 - and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6124/88-509 | 6134-0-0310 | | 1 | |



N2240.4

## Cover Zenit room thermostat

Cover Zenit room thermostat. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit RTC – white | – | N2240.4 BL | 2CL0N224041 | | 1 | |
| Cover Zenit RTC – antrachite | – | N2240.4 AN | 2CL0N224048 | | 1 | |
| Cover Zenit RTC – silver | – | N2240.4 PL | 2CL0N224043 | | 1 | |



6122/98-509

## Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6122/98-509 | 6132-0-0307 | | 1 | |



N2241.4

## Cover Zenit watchdog

Cover Zenit watchdog. Available in white (BL), antrachite (AN) and silver (PL).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Cover Zenit Watchdog – white | – | N2241.4 BL | 2CL0N224141 | | 1 | |
| Cover Zenit Watchdog – antrachite | – | N2241.4 AN | 2CL0N224148 | | 1 | |
| Cover Zenit Watchdog – silver | – | N2241.4 PL | 2CL0N224143 | | 1 | |



## Buttons with symbols

Buttons with symbols for Zenit control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Ceiling light symbol | – | 6123/20-500 | 6123-0-0001 | | 10 | |
| Blinds symbol | – | 6123/21-500 | 6123-0-0002 | | 10 | |
| Scene symbol | – | 6123/22-500 | 6123-0-0003 | | 10 | |
| Temperature symbol | – | 6123/23-500 | 6123-0-0004 | | 10 | |
| Light symbol | – | 6123/24-500 | 6123-0-0005 | | 10 | |
| Fan Coil symbol | – | 6123/26-500 | 6123-0-0006 | | 10 | |



N2271 XX

## Frames, Zenit VDE

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1 fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG* | – | N2271 XX | | | | |
| 1 fold basic (without logo), Available in AN, BL, CV, PL* | – | N2271.1 XX | | | | |
| 2 fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG* | – | N2272 XX | | | | |
| 2 fold basic (without logo), Available in AN, BL, CV,PL* | – | N2272.1 XX | | | | |
| 3 fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG* | – | N2273 XX | | | | |
| 3 fold basic (without logo), Available in AN, BL, CV,PL* | – | N2273.1 XX | | | | |
| 4 fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG* | – | N2274 XX | | | | |
| 4 fold basic (without logo), Available in AN, BL, CV,PL* | – | N2274.1 XX | | | | |



N2271.9

## Metal mounting plate

Metal mounting plate for Zenit VDE KNX sensors.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Metal mounting plate | – | N2271.9 | | | 20 | |

* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate , WG = Wenge

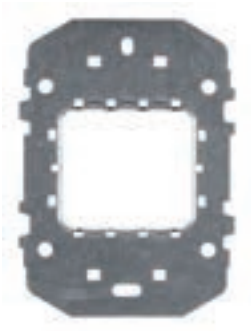
N2372.1 XX

## Frame, Zenit NEMA

NEW

Dimensions (L x W): 122 x 90 mm. Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 1 fold | – | N2372.1 XX | | | | |



N2371.9V

## Metal mounting plate

NEW

Metal mounting plate for Zenit NEMA KNX sensors. Dimensions (L x W): 102 x 74 mm.

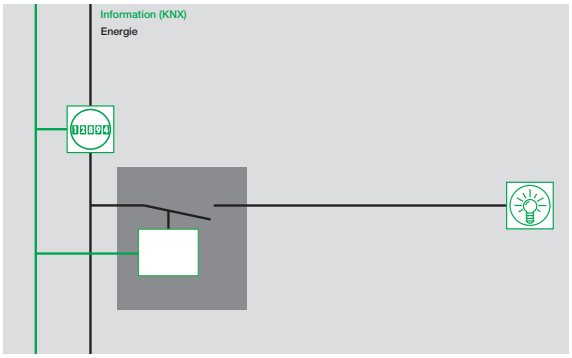
| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Metal mounting plate | – | N2371.9V | | | 20 | |

* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate , WG = Wenge

# Intelligent Building Solutions
# ABB i-bus® KNX – Energy Measurement

**ABB offers various solutions for decentral energy measurement on the basis of the KNX standard.**

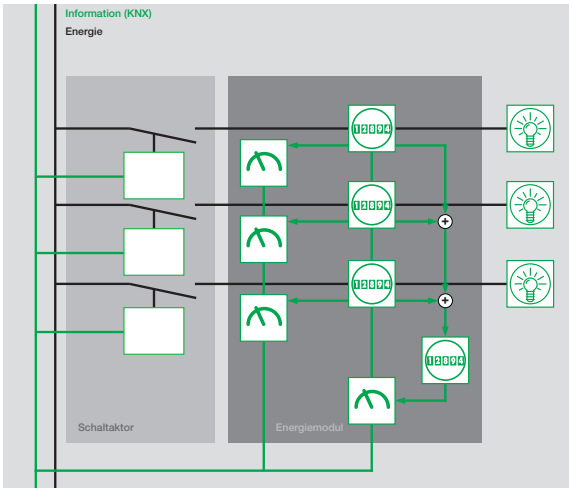
## Version 1




Electronic energy meters make the current energy values available on the KNX bus system in conjunction with a KNX interface. The measured data can be intermediately stored, evaluated and visualized from here.



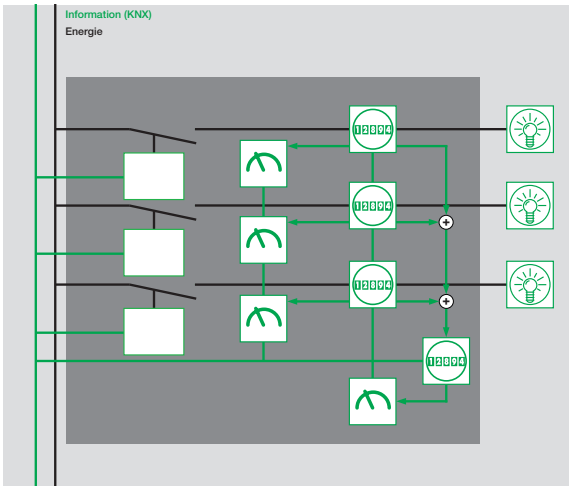
## Version 2




The Energy Module can record the energy consumption for the individual devices. It is used particularly when upgrading existing KNX systems and wherever energy measurement is required without switch functions.
It facilitates a detailed and transparent insight into the energy consumption of a building.
The current meter values can be sent and evaluated.



## Version 3




The Energy Actuator facilitates control of the connected consumer loads via the ABB i-bus® KNX. For each of the three switch channels, the individual consumption can be measured in the same way as for the Energy Module. For every channel, the proven functionality of the ABB i-bus® KNX Switch Actuators are available.



Intermediate meter for electrical energy

Electrical consumer (load)

Energy meter



SE/S 3.16.1

## Energy Actuator, 3-fold, 16/20 AX, MDRC

Records the energy consumption of the connected electrical loads in the load circuit. Various electrical variables can be monitored and load peaks can be limited by simple load control. The 3 output channels can be manually operated and display the current switching state. The Energy Actuator can switch resistive, inductive and capacitive loads The switching capacity corresponds to the SA/S X.16.6.1.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | SE/S 3.16.1 | 2CDG110136R0011 | | 1 | 0.3 |



EM/S 3.16.1

## Energy Module, MDRC

Measures energy consumption and various electrical parameters in the terminal current. Active power, Current, Voltage and Frequency can be monitored via threshold values and peak loads can be limited through a simple load control. The measured values are provided via ABB i-bus® KNX.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 4 | EM/S 3.16.1 | 2CDG110148R0011 | | 1 | 0.2 |



ZS/S 1.1

## Meter Interface Module, MDRC

It records consumption and measured values of the electrical energy consumption meters. Using an infra-red interface, the ABB energy meter types of the A- and B-series are incorporated. The information and data which is read can be used, for example, for cost centre accounting, energy optimisation, monitoring of installations and visualisation.

The following values are available (depending on the meter type):

### Meter reading

| | |
|---|---|
| Active energy | Tariff 1-4, total |
| Reactive energy | Tariff 1-4, total |

### Power values

| | |
|---|---|
| Active power | L1, L2, L3, total |
| Reactive power | L1, L2, L3, total |
| Apparent power | L1, L2, L3, total |
| Phase angle power | L1, L2, L3, total |
| Power factor | L1, L2, L3, total |

### Instrument values

| | |
|---|---|
| Voltages | L1-N, L2-N, L3-N, L1-L2, L2-L3, L1-L3 |
| Currents | L1, L2, L3, N |
| Phase angle voltage | L1, L2, L3, total |
| Phase angle current | L1, L2, L3, total |
| Quadrant | L1, L2, L3, total |
| Mains frequency | |

### Other

| | |
|---|---|
| Transformer ratio | Read CT and VT |
| Power failures | Send and delete |
| Tariffs | Read and change-over |
| Status information | Send and read |
| Communication monitoring | |
| Intermediate meter | Read and reset |

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | ZS/S 1.1 | 2CDG110083R0011 | | 1 | 0.13 |

# Intelligent Building Solutions
# ABB i-bus® KNX – Security and Surveillance – Fault Monitoring and Data Logging



SMB/S 1.1

## Fault Monitoring Unit, MDRC

It is used to detect and manage up to 100 fault messages which are processed within the unit and can be forwarded to a display unit. Furthermore, an optical and an acoustic collective status signal is provided. Messages can be acknowledged and data losses can be reported. The devices support message formats to DIN 19 235: messages with continuous lighting, new value messages with simple flashing light, initial value messages with simple acknowledgement, motor messages. Current values can be centrally scanned.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | SMB/S 1.1 | GHQ6310085R0111 | | 1 | 0.12 |



EUB/S 1.1

## Monitoring Unit, MDRC

Monitors up to 100 bus devices in KNX systems, which can be divided into 5 groups.
The devices are monitored to ensure their presence and minimum functionality (send and receive). Monitoring can be undertaken based on the physical address or the group address.
A total of four different monitoring modes are available.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | EUB/S 1.1 | 2CDG110066R0011 | | 1 | 0.12 |



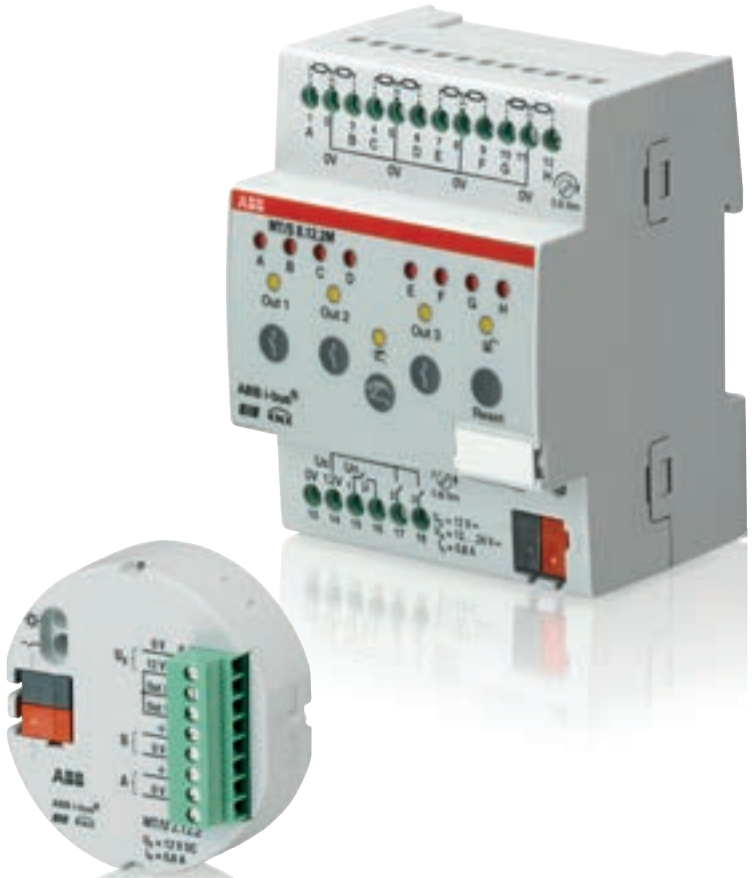
BDB/S 1.1

## Data Logging Unit, MDRC

It detects local operation cycles and operating hours to plan the maintenance or durability evaluation of the devices. For each of the 35 channels to be monitored, limit values can be set and a message sent if this limit is exceeded. The logging of operating hours can be predetermined for the total or remaining time. These values can be modified via communication objects.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | BDB/S 1.1 | 2CDG110067R0011 | | 1 | 0.12 |

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – Approved Security with KNX





**The compact solution for security applications – the Security Terminals**

The Security Terminal provides a compact security solution for KNX applications for detection and signalling of intrusion, personal attack and technical hazards. They are used as the interface between the security technology sensors and KNX.

Depending on the configuration, the devices feature 2, 4 or 8 inputs – so-called detector circuits or zones. They are used for monitoring connected passive detectors (e.g. magnetic contacts, glass break sensors, etc.) to the ABB i-bus® KNX as well as for connection of floating contacts in applications with enhanced security requirements.

Through the connection of security technology and KNX, the detectors employed can, in addition to the security functions, also be used for heating control (e.g. window contact signal for control of the heating valve) or lighting control (e.g. central switch off of the lighting when the alarm logic is set).

The Security Terminals can be used as autonomous systems with the integrated alarm logic, in conjunction with the Security Module SCM/S or with an Intrusion Alarm Panel GM/A 8.1 or L240.



The application program offers several functions for security applications, such as

- Direct and delayed setting
- Internal setting with occupancy and external setting when absent
- Setting of the connected detector types
- Reset input and setting input
- Detector monitoring
- Zones (detector circuits) can be switched off
- Different types of alarms
- Setting for freely programmable relay outputs, e.g. for direct control of signalling devices.

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – Approved Security with KNX



SCM/S 1.1

### Security Module, MDRC

The module provides the necessary logic functions to link the various KNX devices (e.g. zone terminals) to a security system. Up to 64 different zones can be evaluated via communication objects. Arming, operation and display are also implemented using communication objects. The device has a freely programmable relay output for connection of a signal encoder. An uninterruptable KNX power supply with battery back-up is recommended for security function buffering on mains failure.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | 2 | SCM/S 1.1 | 2CDG110024R0011 | | 1 | 0.13 |



MT/S 8.12.2M

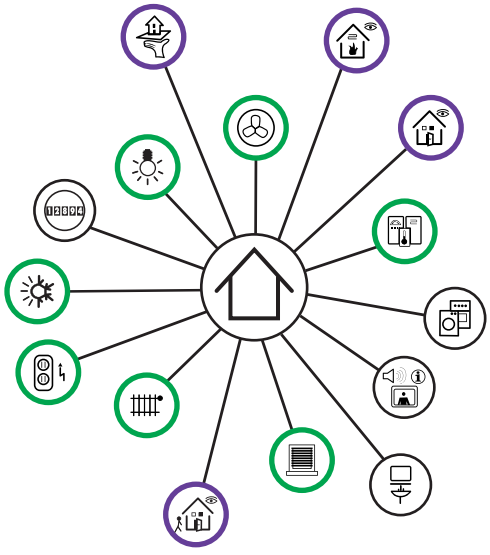
### Security Terminal

They are used as the interface between the security technology sensors and the KNX. The device features inputs, so-called zones. They are used for monitoring connected passive detectors, e.g. magnetic contacts and/or glass break sensors on the ABB i-bus® KNX and/or for connection of floating contacts in applications with enhanced security requirements. The device can be used as a system with autonomous alarm logic or in combination with the Security Module SCM/S or an Intrusion Alarm Panel. The device requires an external 12 V DC SELV auxiliary power supply, (e.g. NTU/S 12.2000.1).

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| 8-fold, MDRC | 4 | MT/S 8.12.2M | 2CDG110110R0011 | | 1 | 0.19 |
| 4-fold, MDRC | 4 | MT/S 4.12.2M | 2CDG110109R0011 | | 1 | 0.19 |
| 2-fold, FM | – | MT/U 2.12.2 | 2CDG110111R0011 | | 1 | 0.08 |

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



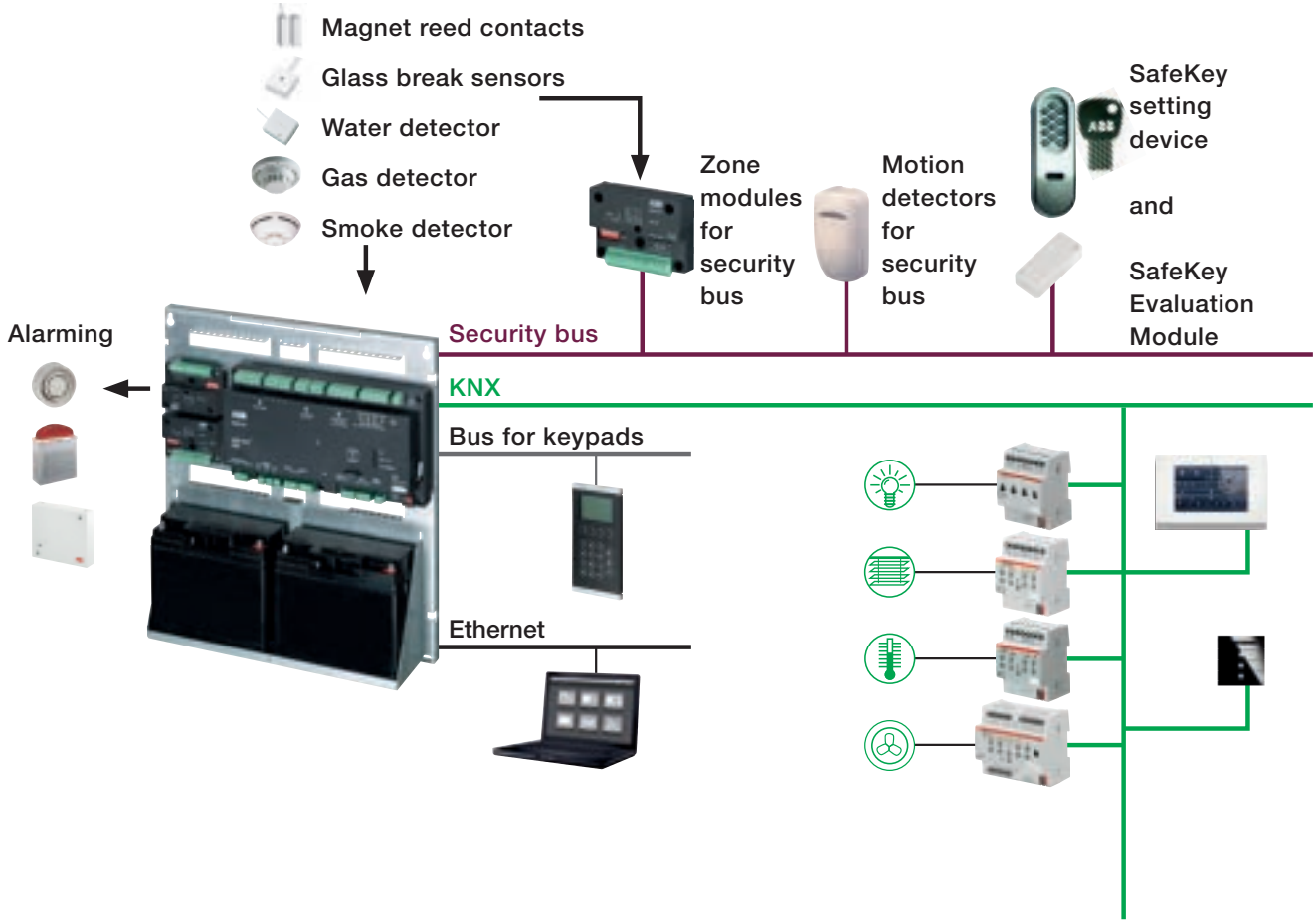


### Professional alarm system for KNX experts

With the new KNX Security Panel GM/A 8.1 ABB presents the first security system that is compatible with both, the international KNX standard (14543-3-x ISO / IEC) and the international standard for alarm systems (ISO / IEC 62642). Therefore the KNX Security Panel GM/A 8.1 is ready for a worldwide usage and expands business opportunities of nearly 40,000 KNX partners in 124 countries. The new system is the perfect solution for projects ranging from simple to high security requirements.

This innovation is the result of more than 30 years of system and application knowledge in alarm technology and building automation at ABB.

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – KNX Security Panel




### A complete product product portfolio: One system – all interfaces

To fulfill the project requirements ABB provides the user besides the new panel and keypad a complete product portfolio for professional alarm technology as well as known solutions for all trades of KNX building automation.

The KNX Security Panel is for universal usage for all kinds of hazardous situations in buildings like intrusion, personal attack, smoke, gas- and water leakage.

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



**KNX Security Panel without cover, integrated zone modules and batteries**

- Ethernet connection for programming, diagnostics and operation via a standard webbrowser
- Direct inputs for security sensors
- Keypads
- Internal, external or remote alarming
- Security bus for security sensors, zone modules and setting devices
- KNX interface to display alarm states via displays of building automation and to control automatic building functions with support of security sensors.

The KNX Security Panel provides all needed system interfaces: An ethernet connection is used for programming, diagnostics and operation via a standard webbrowser as well as integration into the building network. The security sensors will be connected directly to the panel inputs or via the security bus, where the setting device for the system is also connected. Furthermore the panel provides interfaces for the also newly developed keypads and for internal, external or remote alarming. Finally the integrated KNX interface allows on the one hand to display alarm states via displays of building automation and on the other to control automatic building functions with support of security sensors.

# Intelligent Building Solutions
## ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



GM/A 8.1

### KNX Security Panel, SM

for the protection of small to medium residential or commercial properties against intrusion and technical faults. The Security Panel is suitable for up to five logical setting zones. It has 8 integrated zones for detectors, a Security Bus for Bus-detectors, Bus-Zone Modules or Setting devices, Ethernet connection (RJ45) for programming, operating and displaying system status via Web-Browser and an integrated KNX interface. The Security Panel GM/A 8.1 complies with the requirements to VdS classes A, B and C, to the European Standard EN 50131, Grade 1 to 3 and to ISO/IEC 62642 Grade 1 to 3.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | GM/A 8.1 | 2CDG110150R0011 | | 1 | 10.5 |
| Off the wall tamper contact | – | WA/Z 1.1 | 2CDG110174R0011 | | 1 | |



BT/A 1.1



BT/A 2.1

### Keypad for GM/A 8.1

to connect to Security Panel GM/A 8.1 via the Keypad-Bus. The Keypad allows easy operation of the Security Panel. System messages are displayed on a four-line LCD display. Fife Keypads can be connected to each Security Panel. There is no need for an external voltage supply, the keypads are supplied via the Keypad-Bus.

| Description | Mod. width | Order details | | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|---|
| | | Type | | Order code | € | pc. | kg |
| Black | – | BT/A 1.1 | | 2CDG280001R0011 | | 1 | 0.5 |
| White | – | BT/A 2.1 | NEW | 2CDG280002R0011 | | 1 | 0.5 |



MG/A 4.4.1

### Zone Module, 4fold

to connect to Security Panel GM/A 8.1 via the Security-Bus. For expansion of the Security-Panel by 4 detector zones. Used for connection to the exterior perimeter detectors such as magnetic reed contacts and passive glass break sensors. The module has 4 zones to which several detectors can be connected. The status of each zone is displayed with a status LED. The Zone Module delivers the control signals and the supply voltage for the external detectors. There is no need for an external voltage supply, the Zone Modules are supplied via the Security-Bus.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| to mount in the Security Panel housing | – | MG/E 4.4.1 | 2CDG110178R0011 | | 1 | 0.1 |
| in a surface mounting housing for installation in the building | – | MG/A 4.4.1 | 2CDG110186R0011 | | 1 | 0.1 |



SAK7

## Sealed Lead Acid Battery, 12 V DC, 7 Ah

For Intrusion Alarm Panel emergency power. 2 units can be installed. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SAK7 | GHV9240001V0011 | | 1 | |
| | – | SAK17 | GHV9240001V0013 | | 1 | |



IR/XB
IR/XC

## Infra-Red Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The motion detectors with passive infra-red technology are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| VdS-No. G 110 506 | – | IR/XB | 2CDG230023R0011 | | 1 | |
| VdS-No. G 110 062 | – | IR/XC | 2CDG230024R0011 | | 1 | |



EIM/XB
EIM/XC

## Dual Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The Dual-Motion Detector combines proven passive infra-red technology with temperature-independent microwave technology. The combination of both functional principles results in a detector featuring high immunity to false alarms, even with unfavourable ambient conditions, and which still has high detection security. The detectors are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| VdS-No. G 110 513 | – | EIM/XB | 2CDG230025R0011 | | 1 | |
| VdS-No. G 110 061 | – | EIM/XC | 2CDG230026R0011 | | 1 | |





MW

## Mounting Bracket

For motion detectors.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | MW | GHV9230039V0020 | | 1 | |

# ABB i-bus® KNX – Security and Surveillance – System Components



WEL/A, ES

## SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | WEL/A, ES | GHQ3050023R0001 | | 1 | |



WELT/A, ES

## SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | WELT/A, ES | GHQ3050024R0001 | | 1 | |




SCS

## SafeKey Chipkey

It is an electronic carrier medium for setting / unsetting via a SafeKey Wall Reader. A SafeKey Chipkey can be authorized for any number of different SafeKey systems with different levels of authorization.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SCS | GHQ3050027R0001 | | 1 | |



L240/BS

## SafeKey Evaluation Module

For connection of the SafeKey components as well as all components required for a setting door (magnetic contacts, lock bolt switching contact, bolt lock, internal siren). For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The management of the electronic keys from the SafeKey range is undertaken completely via the WebUI of the Security Panel GM/A 8.1.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | L240/BS | GHQ3050031R0001 | | 1 | |



SSM/A

## SafeKey Switching Module

is used for an easy connection and evaluation of the SafeKey Wall Reader with or without keypad (WEL or WELT). Applicable for potential-free switching of electrical components up to 5 A at a max. voltage of 12...24 V DC/AC, i.e. electrical door opener or garage doors, or to set/unset a KNX security system via the connection to a Security Terminal MT/x.
In subject to the housing type the module can be used for surface or flush mount. A 12 V power supply is required.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Surface mounting | – | SSM/A | 2CDG240019R0011 | | 1 | |



ESPE

## Electromechanical Bolt Lock

Prevents access to the set zone of an Intrusion Alarm Panel. The unit is mounted in the door frame. Only a single bore or the counterpart for the locking bolt in the door panel is required. Suitable for use with WEL and WELT. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | ESPE | GHV9250010V0001 | | 1 | |
| Replacement Locking Bolt | – | EVSB | GHV9250010V0002 | | 1 | |
| Mounting kit, flat door panel and frame | – | AMSP | GHV9250010V0004 | | 1 | |
| Mounting kit, raised door panel | – | AMSE | GHV9250010V0003 | | 1 | |



ESPE/M

## Electrical Mini Bolt Lock NEW

The ESPE/M Mini Bolt Lock is used together with an intrusion alarm system to implement the inevitability condition. The motorized bolt lock additionally locks the door to the set area, preventing unintentional opening of the door when the intrusion alarm system is set.
The ESPE/M Mini Bolt Lock is connected to the L240/BS Evaluation module for the L240 Intrusion Alarm Panel or GM/A 8.1 KNX Security Panel.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | ESPE/M | 2CDG270010R0011 | | 1 | |



SAD/GAP

## Distribution Enclosure, SM

NEW

For installation of the Bus Modules L840/MG4 and L240/BS.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Surface mounting | – | SAD/GAP | 2CDG220021R0011 | | 1 | |



MRS/W

## Magnet Reed Contact Set

For opening surveillance of windows and doors, complete for bolting or drilling Contents: 1 magnet, 1 reed contact with 4.0 m connection cable LIYY 4 x 0.14 mm², 2 housings, 2 spacer plates, 2 flanges and 4 anti-magnetic fixing screws. VdS No. G 191549. VdS class B.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | MRS/W | GHQ3201972R0001 | | 1 | |
| brown | – | MRS/B | GHQ3201972R0002 | | 1 | |
| Saver Set (20 pcs.), white | – | VMRS/W | GHQ3201972R0011 | | 1 | |
| Saver Set (20 pcs.), brown | – | VMRS/B | GHQ3201972R0012 | | 1 | |



RTK

## Rolling Door Magnet Reed Contact Set

For monitoring opening or rolling doors or other large doors in the industrial field. Contents: 1 magnet, 1 reed contact with 2 m connection cable 4 x 0.14 mm², 1 m protective tubing and 1 set of mounting accessories. Degree of protection: IP 68; Environmental class to VdS 4; VdS class B.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | RTK | GHQ3201973R0021 | | 1 | |





SPGS/W

## Glass Break Sensor

For surveillance of glass surfaces of windows, display windows and doors with high interference immunity and integrated memory display. For operation directly on detector circuits of intrusion alarm panels or security terminals. Extremely compact dimensions.
Dimensions: H x W x D = 18 x 18 x 9 mm.
Mounted onto glass using Loctite adhesive (LKS). With 5 m connection cable.
VdS No. G 194524. VdS class B.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | SPGS/W | GHV9220004V0009 | | 1 | |
| brown | – | SPGS/B | GHV9220004V0010 | | 1 | |
| Mechanical Glass Break Test Device | – | GP2 | GHV9220004V0004 | | 1 | |
| Loctite adhesive | – | LKS | GHQ4001906R0001 | | 1 | |



WRK/W

### Lock Bolt Switching Contact

For installation in the strike plate, for lock monitoring on doors. Water-tight IP 67, with 2.5 m connection cable LIYY 3 x 0.14 mm². VdS No. G 190008. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | WRK/W | 2CDG250003R0011 | | 1 | |



VSUE

### Window Lock Monitoring Contact

Lock monitoring is carried out with a special magnet and a reed contact. The magnet is mounted on the push rod of the window sash while the reed contact is mounted on the frame. The connection cable LIYY 4 x 0.14 mm² is 4 m in length. VdS No. G 190074. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | VSUE | GHV9210018V0022 | | 1 | |



ND/W

### Emergency Call Button

For manual alarm tripping. Complies with the police regulations since it features permanent trip recognition, momentary-contact function, with cover contact. Surface mount version. Colour: white. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Surface mounting | – | ND/W | GHQ7132443R0011 | | 1 | |
| Flush mounting | – | NDU/W | GHQ7132443R0021 | | 1 | |
| Spare Papers (10 pcs.) | – | EP | GHQ7132443R0003 | | 1 | |





NDA/W

### Cover plate

Used primarily in the banking sector or other institutions, where unintentional alarm triggering is possible due to public access.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | NDA/W | GHQ7132443R0004 | | 1 | |

# Intelligent Building Solutions
# ABB i-bus® KNX – Security and Surveillance – System Components



IR/KB

## Passive Infra-Red Detector

For conventional wiring to zone inputs of an Intrusion Alarm Panel or a KNX Sercurity Terminal. With a volumetric lens for interior monitoring. Can be optionally set for hall monitoring function up to 15 m. Color: RAL 9010 pure white; for use up to VdS class B.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| VdS-No. G 110 502 | – | IR/KB | 2CDG230027R0011 | | 1 | |



EIM/KB

## Dual Motion Detector

This new dual detector is based on proven detection principles of the EIM detector AND incorporation of infrared technology and electromagnetic field detection. The detector enables a detection range of 15 m with 17 zones on 6 levels. The range of the infra-red component the electromagnetic field can be adjusted separately using a jumper. Up to VdS class C; Color RAL 9010 pure white.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| VdS-No. G 110 503 | – | EIM/KB | 2CDG230028R0011 | | 1 | |
| VdS-No. G 110 060 | – | EIM/KC | 2CDG230029R0011 | | 1 | |



MW

## Mounting Bracket

For motion detectors.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | MW | GHV9230039V0020 | | 1 | |





EIM/D

## Dual Ceiling Detector

Operates according to the proven detection principle of the EIM detector (infra-red technology and electromagnetic field) over 360°. The range of the infrared component can be adapted via the mounting height while the range of the electromagnetic field can be adjusted separately using a jumper. The detector is fitted with a walk test LED. Colour: RAL 9010 pure white.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | EIM/D | 2CDG230039R0011 | | 1 | |

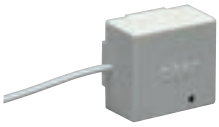


SGL

## Gas Detector

For measurement and evaluation of the concentration of natural gas or liquefied gas in the air. The detector requires a 10 – 30 V DC voltage supply and has a normally open relay output contact for connection to the intrusion alarm panels and fire alarm panels, features an LED display and a Piezo buzzer. For ceiling and wall mounting.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SGL | GHQ3050008R0001 | | 1 | |



SWM 4

## Water Detector

A resin-encapsulated water detector with gold-plated Termipoint pins, detects water ingress, e.g., pipe fractures, ingress of groundwater and sewage, water damage caused by washing machines and dishwashers etc. before the damage becomes too expensive. For operation directly on detector circuits of intrusion alarm panels or security terminals.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SWM 4 | GHQ4030001R0004 | | 1 | |



SWM 4/RN

## Water Detector with Relay Output

Features a potential free changeover contact output, an LED parallel output and a LED display. The detector resets itself automatically when the affected area dries out. The device draws its power from an external 10 ... 23 V DC voltage source.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SWM4/RN | GHQ4030001R0012 | | 1 | |



FC650/O

## Optical Smoke Detector

Optical smoke detector in threshold alarm technology that detects smoke according to the scattered-light principle The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an a alarm Detector/base diameter: 110 mm. VdS approved.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FC650/O | 2CDG430079R0011 | | 1 | |



FC650/TMAX

## Heat Detector

Static Heat Detector in threshold alarm technology, – trigger temperature 78 °C. The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed-in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an a alarm. Detector/base diameter: 110 mm. VdS approved.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FC650/TMAX | 2CDG430081R0011 | | 1 | |



FC600/BREL

## Detector Base, 12 V

Enables system-independent connection of the FC650 series fire detector to systems or devices that are not specifically designed for this detector technology. Examples include Intrusion Alarm Panels, KNX Security Terminals, elevator controls or other signal processing equipment. The detector base must be supplied by either a 12 V or a 24 V DV voltage supply.
A floating 30 V DC/1 A changeover contacting is provided for transferring an alarm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FC600/BREL | 2CDG430051R0011 | | 1 | |



FPA03

### Testing Aerosol

For optical smoke detector testing, 250 ml.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | FPA03 | GHV9020012V0021 | | 1 | |

### Reed Relay, 12 V

For connection, e.g. to transistor outputs of Intrusion Alarm Panels. Coil voltage 8.5...14 V DC. Current consumption 5 mA at 12 V DC. Contact loading 24 V/100 mA.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | RL | GHV9270013V0101 | | 1 | |



SSS

### Electronic Solid-State Siren

Electronic solid-state siren with intermittent tone for alarm purposes in indoor installations. External dimensions: ø x H = 90 x 37 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SSS | GHV9270001V0001 | | 1 | |



SSF/G

### Siren in Enclosure

An aluminium protective housing with additional protective enamel coating. Protected against sabotage by a case tamper contact. The alarm inputs are wired onto a terminal strip.
With fixing screw (M4) for potential equalization on the base.
Dimensions: H x W x D = 200 x 205 x 88 mm; Color: RAL 9002 Environmental class III to VdS.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SSF/G | GHQ3050017R0001 | | 1 | |



SSF/GB

### Combination Signalling Device

Siren in an aluminium protective housing with additional protective enamel coating and strobe light mounted on top. Protected against sabotage by a case tamper contact.
The alarm inputs are wired onto a terminal strip. Dimensions: H x W x D = 258 x 205 x 88 mm; Color RAL 9002. VdS No. G 101147. VdS class C.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | SSF/GB | GHQ3050018R0001 | | 1 | |



6833/01-84-500

## Busch Smoke Alarm® ProfessionalLine

For early detection of smouldering fires and open fires with smoke development indoors according to the photooptical measurement principle (Tyndall). With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked with up to 12 detectors using the radio module. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604 studio white.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| not networkable | – | 6833-84-500 | 6800-0-2720 | | 1 | |
| networkable | – | 6833/01-84-500 | 6800-0-2721 | | 1 | |



6835/01-84-500

## Busch Heat Alarm ProfessionalLine

Signal triggered at over 57 °C. With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Can be networked with up to 12 detectors using the radio module. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white | – | 6835/01-84-500 | 6800-0-2723 | | 1 | |



6827-84

## Busch Smoke Alarm® Radio Module

For wireless networking of multiple Busch smoke alarms® / heat alarms.
With installed Lithium battery. Battery life min. 10 years. Radio frequency: 868 MHz.
Range: max. 100 m outdoors, max. 30 m indoors.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6828 | 6800-0-2514 | | 1 | |



6829-84

## Busch Smoke Alarm® Relay

For connecting external systems, e.g. KNX. Relay contact, floating changeover contact 230 V~ max. 5 A. Cable connection: up to 2 x 2 x 1.5 mm². With installed radio module. Rated voltage: 230 V~.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white | – | 6829-84 | 6800-0-2515 | | 1 | |



6824-84

## Busch Smoke Alarm® Remote Control

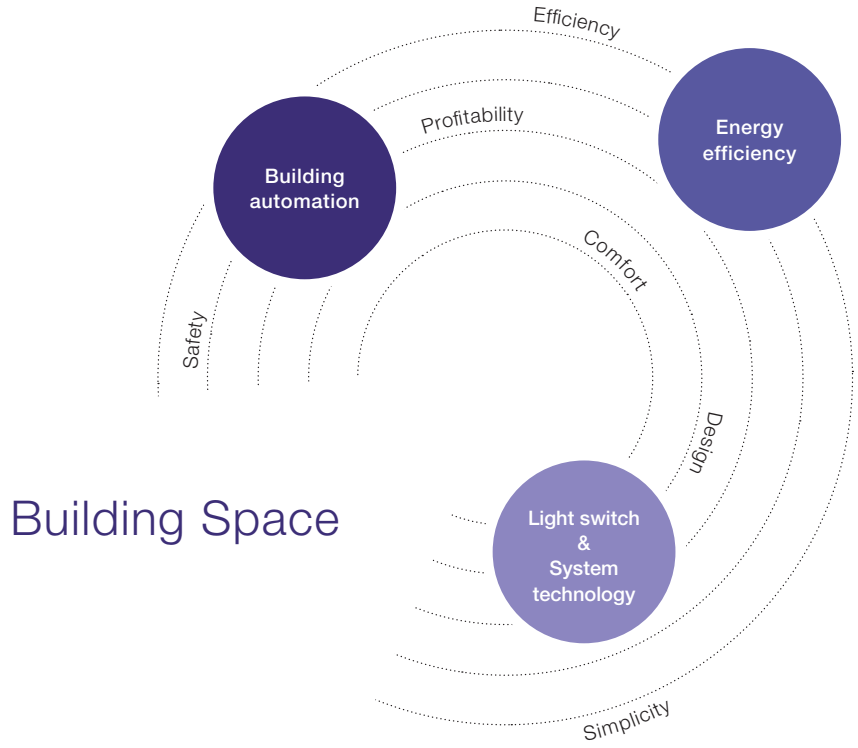
For service purposes. With muting, test and search function.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white | – | 6824-84 | 6800-0-2516 | | 1 | |

# Intelligent Building Solutions
## Newron – Integration in Building Management Systems

Modern buildings today are more than merely the expression of future-oriented architecture. Integral systems must do justice to the increasing demands for energy efficiency, comfort, safety and profitable operation. For this, real estate needs intelligence in the form of well-designed technology. It is used to integrate information of the entire building auto-mation and to control heating and cooling systems, ventilation and air conditioning systems, lighting, sun-shading systems, as well as fire protection and safety systems. Depending on the type of its use, a building presents special challenges to everyone concerned. That is why Busch-Jaeger, as subsidiary of the expert global brand ABB, now offers an integral solution – Building Space.

Under this umbrella all available expert know-how of building automation as well as the electrical and building systems technology sectors is merged as solution for buildings of the future. This portfolio of products and services is unique. With this growing power of expertise, efficient buildings can be made a reality safely and reliably – from functional buildings up to exclusive luxury hotels. And that on an international level. This how impressive solutions with the greatest possible freedom for design and implementation are created. Because Building Space solutions adapt themselves precisely to the respective object and its use. Even later modifications and extensions are possible at any time. When the building is to be used later for a different purpose, for example. Newron solutions guarantee an assured future and efficient operation. Thanks to openness and flexibility they are suitable for a complete IT and architectural building management solution for intelligent functional buildings.



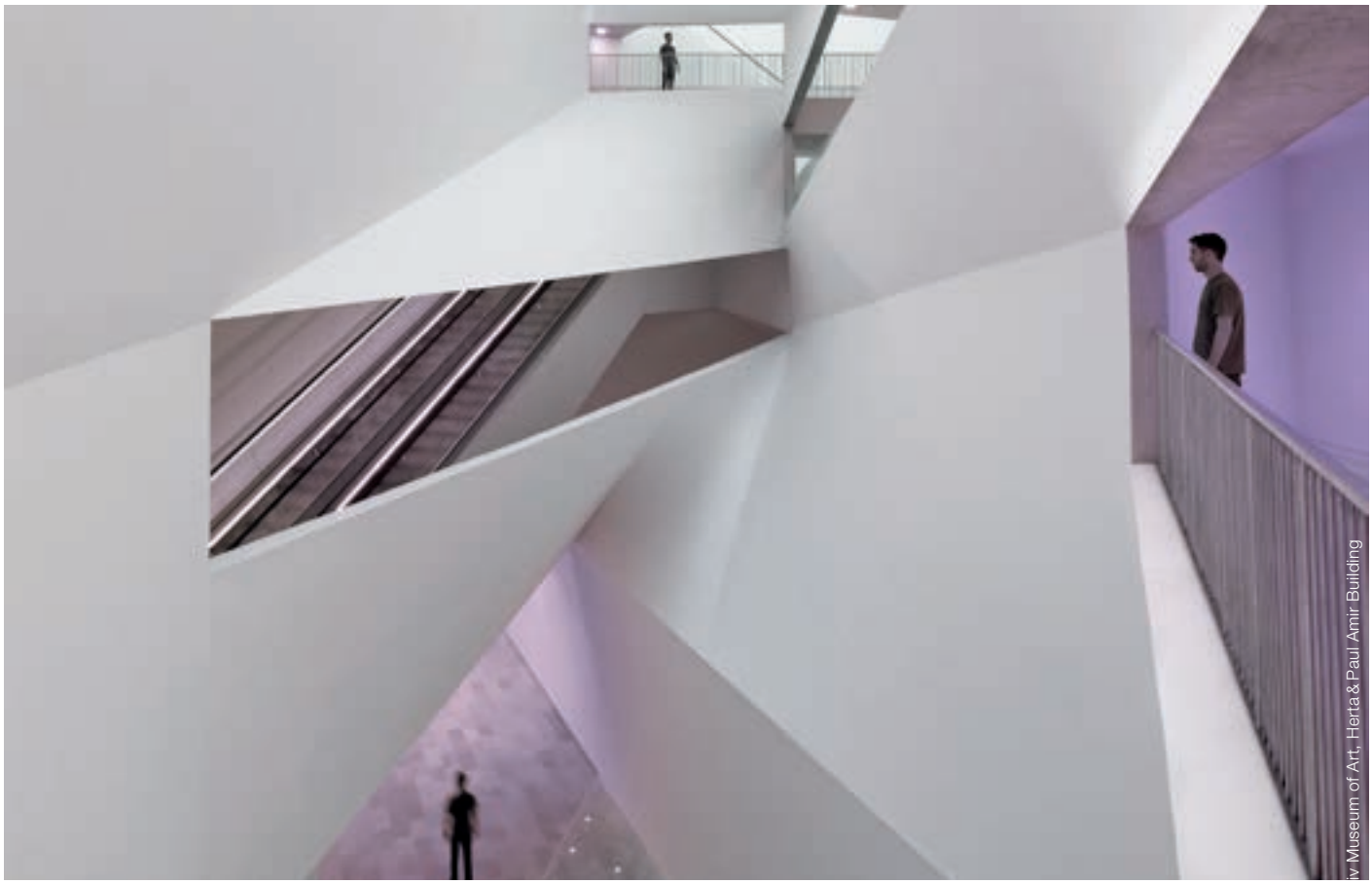
# Intelligent Building Solutions
## Newron – Total Networking

System integrators can now work even more efficiently. Because with the innovative Newron solutions ABB and Busch-Jaeger offer simple and efficient possibilities for intelligent building management.

More possibilities in less time. Newron solutions allow a simple and flexible data exchange to take place between the different levels of a building management system and the most commonly used protocols used in functional buildings. And here the solutions support all open standards such as BACnet, LON, KNX, Modbus, OPC, M-Bus and oBIX. This kind of flexibility allows devices of different manufacturers and different protocol families to be combined in a building in a very simple way. The performance of the system is designed for processing large amounts of data and the efficient integration of numerous data points.

Newron solutions support distributed IT architecture as well as IP convergence. The term convergence in general means the integration of forms of communication based on different technologies into a single network. IP convergence in the context of building management refers to the integration of different bus systems into one IP network. IP convergence offers a number of advantages with regard to expandability, performance, a uniform infrastructure as well as the possibility of joint management. This creates the prerequisites for the integral, service-oriented consideration of information processing.

The outstanding features of Newron solutions are the intuitively operable user interface and the easy-to-understand internal architecture. They are ideally suited for medium to large projects in functional buildings. Newron solutions offer the system integrator the working environment for processing major projects more efficiently and to simultaneously reduce integration time. Newron solutions follow an integrating approach and are therefore the direct interface to all central levels of intelligent building management. They form the bridge between technical system components and management level. Newron in a practical way supplements the numerous innovative KNX solutions for building automation in the existing program and rounds off the portfolio. For planners and system integrators Newron opens new possibilities and a highly attractive field of business – for example, the integration of KNX into the different trades of a building management system.



iv Museum of Art, Herta & Paul Amir Building

# Intelligent Building Solutions
## Newron – Advantages at a Glance



doMOOV

doMOOV is a building management software for building automation and makes possible the exchange of data between different protocols. The user-friendly interface and the simple internal structure ensure short programming times and facilitate modification and adaptation.

**Software solution**

» Fast to configure
» User-friendly HMI (Human Machine Interface)
» Supports decentralized IT structure
» Multi-protocol gateway – supports the protocols: KNX, LonWorks, BACnet, Modbus, M-bus
» Universal SCADA server OPC, BACnet, oBIX
» Integrated services: schedule/calendar, trends, alarms



# Intelligent Building Solutions
## Newron – Advantages at a Glance





doGATE
doGATE is an automation server optimized to doMOOV that is equipped with all necessary physical interfaces, which can also take over backup and remote control functions related to rooms.

MOOVnGROUP
MOOVnGROUP is an engineering tool, which as application for the KNX commissioning software ETS4 with a graphic user interface, facilitates the setup and editing of KNX projects. Here for example group addresses are automatically generated.

**Automation-Server**
- » Automation server that works functionally stable
- » Attuned to the requirements of functional buildings and the building management software doMOOV
- » Makes available all necessary interfaces
- » Redundancy: can be defined as backup device
- » Additional functions: virtual remote control and Web Dashboard

**Graphic engineering tool**
- » Graphic engineering tool for the ETS4
- » Zone concept: simple, fast setup/modification of rooms/connections, as well as modification of parameters
- » Reduction of complexity due to the automatic generation of group addresses
- » Working with templates: reuse of created device and zone templates
- » Automatic generation of data for Web Dashboard, virtual remote control LIZ, BACnet objects for SCADA (visualization) and trend data points

### doGATE Automation-Server [1) 2) 3)]
### For 1,000 data points

Multi-Protocol Gateway that enables the integration of different protocols over TCP/IP in a Building Management System (BMS) and allows data exchange between the protocols.
The integrated BACnet server offers scheduler, trend and alarm services. Data import of standard data bases (ETS for KNX, LNS for LON, EDE for BACnet) and MS Excel is supported. Enables decentralized IT structure. Redundancy: can be defined as backup device. Offers additional functions: virtual remote control and Web-Dashboard. Supports the protocols KNX, BACnet, LonWorks, Modbus, M-Bus. By default supported protocol/server: Modbus protocol and BACnet server.
Optional 1 additional protocol: KNX, BACnet or LONWorks.
Optional 2 additional protocols: KNX, BACnet or LONWorks.
Optional 3 additional protocols: KNX, BACnet and LONWorks.
For further information please contact central sales service of ABB Busch-Jaeger Elektro GmbH.
Rated voltage: 10 – 28 V–. Protection class (Device): IP 20.
Temperature range (Device): 0 °C to 55 °C.
Dimensions: (L x W x D): 252 mm x 199 mm x 33 mm.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| By default | – | DGT-0-1K-AB | 8110-0-0001 | | 1 | |
| 1 additional protocol | – | DGT-1-1K-AB | 8110-0-0002 | | | |
| 2 additional protocols | – | DGT-2-1K-AB | 8110-0-0003 | | | |
| 3 additional protocols | – | DGT-3-1K-AB | 8110-0-0004 | | | |

### doGATE MOOVnGROUP license [3)]
### For 100 devices

Runtime license for MOOVnGROUP.
For usage in combination with Automation-Server doGATE.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-MNG-100-AB | 8110-0-0023 | | 1 | |

### doGATE Web-Dashboard-VIS license [3)]
### For 1,000 data points

Runtime license for Web-Dashboard-VIS. Web-Dashboard is a visualization based in the Automation-Server doGate and allows to display/modify data points, trends, scheduler and alarms. Web-Dashboard supports HTML5 standard. Can be combined with all popular windows browsers. Web-Dashboard data's are automatically generated from the predefined MOOVnGROUP zones. All other doGATE datapoints can be added manually.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-VIS-1K-AB | 8110-0-0030 | | 1 | |

[1)] Scope of doGATE services is managed by license keys.
[2)] Usage of, the into doGATE integrated software on Windows PC is possible.
[3)] without picture

### doGATE Virtual remote control-LIZ license [1)]
### For 100 zones

Runtime license for virtual remote control-LIZ. For usage in combination with Automation-Server doGATE. Via LIZ rooms (zones) can be controlled by smartphone (Android, iPhone) or PC widget. LIZ data's are automatically generated from the predefined MOOVnGROUP zones. The user makes a LIZ spatial control. The different rooms are enabled by passwords.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-LIZ-100-AB | 8110-0-0036 | | 1 | |

### doGATE M-Bus protocol [1)]

Additional protocol for Automation-Server doGATE. Protocol: M-Bus.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-MBU-AB | 8110-0-0017 | | 1 | |

### doGATE OPC server [1)]

Permits to bring data up to SCADA/Visualization into OPC, from one or several doGATEs. Runs on an external computer.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-OPC-AB | 8110-0-0018 | | 1 | |

### doGATE MDRC Mounting kit [1)]

For vertical or horizontal mounting of Automation-Server doGATE on mounting rail TS 35.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-DIN-AB | 8110-0-0020 | | 1 | |

### doGATE Obix server [1)]

Additional Obix server for Automations-Server doGATE. Server: Obix.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-OBI-AB | 8110-0-0022 | | 1 | |

### doGATE Power supply [1)]

Power supply for Automation-Server doGATE with main connection cable including connectors for various power outlets. Rated voltage: 100 - 240 V~. Secondary: 19 V–. Rated frequency: 47 Hz/63 Hz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | DGT-PWR-AB | 8110-0-0019 | | 1 | |

[1)] without picture

# Intelligent Building Solutions
## WaveLINE Wireless Control – RF Sensors

01



02



03



04



05



01 SM WaveLINE movement detector, Article-No. 6747 AGM-204-500

The WaveLINE Busch-Watchdog 220 is a battery-operated movement detector. Since it is installed without cables it can be mounted in the most ideal position. The battery has a service life of 5 years.

02 WaveLINE media converter TP-RF, Article-No. 6770-500

The KNX and Busch radio control are coupled via the WaveLINE media converter TP-RF. Telegrams can be exchanged in both directions. One application serves to transmit the window sensor to the KNX system.

03 Window sensor, Article-No. 6720-64

The WaveLINE window sensor is retrofitted between the window and window handle, which means the original window handle is retained. The window handle is used for the following window positions: opened, tilted and closed.

04 Universal detector, Article-No. 6721-64

The WaveLINE universal detector is suited for skylights or sliding doors and is activated via a reed contact. The universal detector has a second channel which can be permanently wired to a floating contact (NO or NC contacts).

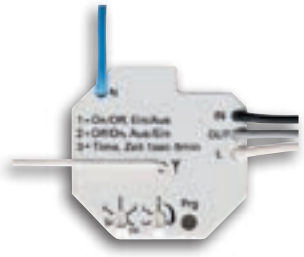
05 Remote control RF, Article-No. 6780-500

The remote control is used as mobile control for the WaveLINE. Loads can be controlled individually and scenes can be started.

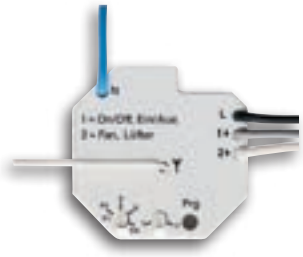
| **Control elements** | | | | | |
|---|---|---|---|---|---|
| Switch ranges |  1gang |  2gang |  4gang |  1gang |  2gang |
| ***pure*** *stainless steel* | 6731-866-500 | 6732-866-500 | 6733-866-500 | | |
| **solo®** | 6731-xx-500 | 6732-xx-500 | 6733-xx-500 | | |
| **Busch-axcent®** | 6731-xx-500 | 6732-xx-500 | 6733-xx-500 | | |
| **future® linear** | 6731-xx-500 | 6732-xx-500 | 6733-xx-500 | | |
| **Reflex SI** | | | | 6731-214-500 | 6732-214-500 |
| **Busch-Duro 2000® SI** | | | | 6731-212-500 | 6732-212-500 |

# Intelligent Building Solutions
## WaveLINE Wireless Control – RF Actuators / Displays

01



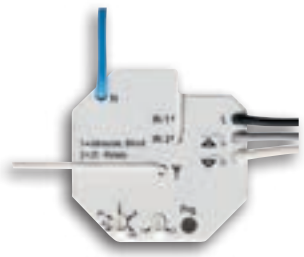
02



03



04 | **NEW**



05 | **NEW**



06 | **NEW**



07

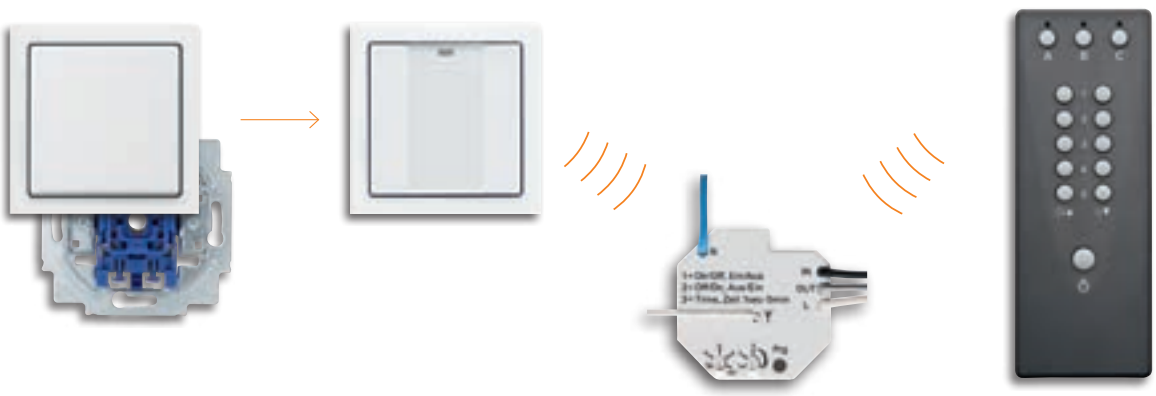


01 1gang WaveLINE actuator, Article-No. 6702-500
02 2gang WaveLINE actuator, Article-No. 6703-500
03 WaveLINE dimming actuator, Article-No. 6704-500
04 WaveLINE blind actuator, Article-No. 6705-101-500
05 1gang WaveLINE actuator, Article-No. 6701-101-500
06 WaveLINE binary input, 2gang Article-No. 6725-500
07 WaveLINE LED display, 4gang with switching function, Article-No. 6730-84



Before

After



Usage of frequency might be restricted in certain countries.



6731-214-500



6731-84-500

## Wall-mounted transmitter WaveLINE 1-channel

1gang wall-mounted transmitter independent of mains power supply. For switching and dimming. For controlling blinds and light scenes. 1 radio channel can be operated or up to 2 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | 6731-212-500 | 6730-0-0028 | | 1/10 | |
| alpine white | – | 6731-214-500 | 6730-0-0030 | | 1/10 | |
| ivory white | – | 6731-82-500 | 6730-0-0032 | | 1/10 | |
| aluminium silver | – | 6731-83-500 | 6730-0-0035 | | 1/10 | |
| studio white | – | 6731-84-500 | 6730-0-0038 | | 1/10 | |
| stainless steel | – | 6731-866-500 | 6730-0-0041 | | 1/10 | |
| antique brass | – | 6731-840-500 | 6730-0-0094 | | 1/10 | |



6732-214-500



6732-84-500

## Wall-mounted transmitter WaveLINE 2-channel

2gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 2 radio channels can be operated or up to 4 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | 6732-212-500 | 6730-0-0029 | | 1/10 | |
| alpine white | – | 6732-214-500 | 6730-0-0031 | | 1/10 | |
| ivory white | – | 6732-82-500 | 6730-0-0033 | | 1/10 | |
| aluminium silver | – | 6732-83-500 | 6730-0-0036 | | 1/10 | |
| studio white | – | 6732-84-500 | 6730-0-0039 | | 1/10 | |
| stainless steel | – | 6732-866-500 | 6730-0-0042 | | 1/10 | |
| antique brass | – | 6732-840-500 | 6730-0-0095 | | 1/10 | |

# WaveLINE Wireless Control – Transmitter



6733-84-500

## Wall-mounted transmitter WaveLINE 4-channel

4gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 4 radio channels can be operated or up to 8 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| ivory white | – | 6733-82-500 | 6730-0-0034 | | 1/10 | |
| aluminium silver | – | 6733-83-500 | 6730-0-0037 | | 1/10 | |
| studio white | – | 6733-84-500 | 6730-0-0040 | | 1/10 | |
| stainless steel | – | 6733-866-500 | 6730-0-0043 | | 1/10 | |



6780-500

### Remote control WaveLINE

Network-independent radio control. For switching and dimming. For controlling blinds and light scenes. With 3 groups (A, B or C) with 5 pairs of channels. There are 15 radio channels operated singly or up to 30 light scenes can be called. With “ALL OFF” function for associated actuators. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| black | – | 6780-500 | 6780-0-0001 | | 1/10 | |



6725-500

### WaveLINE binary input, 2gang, 230 V~

Radio control telegrams are sent when the two extension units are activated with mains voltage (AC 230 V~). Operation also possible via conventional push-buttons (2020 US, 2012/6 UK).

The 2gang binary input has 5 function modes 2-channel switching; 2-channel dimming; 1-channel blind; Two-channel light scene control; Channel 1: Switching ON. Channel 2: Continuous switching ON/OFF.

In dependence of the selected function, it can be combined with WaveLINE actuators 6701-101, 6702, 6703, 6704, 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. For universal attachment or installation. Phase and neutral conductor required. For installation in (deep) flush-mounted boxes to German Standard DIN 49073, Part 1. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Inputs: 2.
Polling voltage: 230 V~, potential-connected.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| white | – | 6725-500 | 6720-0-0008 | | 1/10 | |



6747 AGM-204-500

### Busch-Watchdog 220° WaveLINE

Wireless movement detector for detecting thermal motion. With display for detection and status indication. With ground and rear-field detection. With high-quality lens for optimum detection. Surveillance density: 84 sectors with 336 switching segments. With integrated dismantling protection. All functions controlled by microprocessor. With automatic range stabilization. With automatic interference suppression. With automatic dazzle-proofing. With automatic battery monitoring. Battery type: Lithium batteries 1250 mAh (L92 AAA 1.5 V). Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free.
With brightness-independent test mode for evaluating the detection zone. Individual adjustment of detection range via enclosed protective foil which can be cut to size. Combinable with switch actuator WaveLINE, 1gang, with extension unit 6701-101. Compatible with WaveLINE KNX gateway TP-RF 6770. For standalone and group operation. Switch-off delay: 3 min. (single mode), individually adjustable at actuator (group mode). Send frequency: 868 MHz. Free-field range: approx. 100 m. Rated voltage: 4.5 V–. Detection range: frontal: 16 m, lateral: 16 m. Detection angle: 220 °. Brightness limit value: 0.5 Lux – 300 Lux, Daytime operation. Mounting height: 2.5 m.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| brown | – | 6747 AGM-201-500 | 6700-0-0038 | | 1 | |
| alpine white | – | 6747 AGM-204-500 | 6700-0-0035 | | 1 | |
| silver metallic | – | 6747 AGM-208-500 | 6700-0-0036 | | 1 | |
| anthracite | – | 6747 AGM-35-500 | 6700-0-0037 | | 1 | |



6701-101-500

### WaveLINE switch actuator, 1gang, with extension unit

For wireless switching of electrical loads. Functions via radio control: ON/OFF, timer and light scene control. Functions via the extension unit: ON/OFF, timer and sending a radio control telegram. Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For Busch-Watchdog WaveLINE. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1.
Polling voltage: 230 V~, Sensing pulse, L-wire.
Outputs: 1x Normally open contact, potential-bound.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| ☼ | – | 6701-101-500 | 6700-0-0040 | | 1/10 | |



6702-500

### Switch actuator WaveLINE

For wireless switching of electrical loads. For functions ON/OFF, timer and lightscene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / –10 %.
Rated frequency: 50 Hz. Outputs: 1x Normally open contact, potential free.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| ☼ | – | 6702-500 | 6700-0-0023 | | 1/10 | |



6703-500

### 2gang switch actuator WaveLINE

For wireless switching of electrical loads. For operation mode 2gang switch, 2 separate outputs. For operation mode timer: output 1 (eg lighting), output 2: ON/Off delay in dependence of output 1 (eg fan control). For functions: ON/OFF and light scene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signaling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / –10 %.
Rated frequency: 50 Hz. Outputs: 2x Normally open contact, potential-bound.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| ☼ | – | 6703-500 | 6700-0-0024 | | 1/10 | |

# Intelligent Building Solutions
## WaveLINE Wireless Control – Actuators, RF/KNX Media Converters



6704-500

### Universal dimming actuator WaveLINE

For wireless switching and dimming of electrical loads. For functions ON/OFF, dimming and lightscene control. With soft ON/OFF function. With selectable light value storage. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. Controllable up to 32 transmission addresses.
Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Outputs: 1x dimming channel.
Suitable for: 230 V incandescent lamps. Output voltage: 230 V~. Rated power: 35 – 210 W.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| ☼ | – | 6704-500 | 6700-0-0025 | | 1/10 | |



6705-101-500

### WaveLINE series/blind actuator with extension unit

For wireless switching of electrical loads. For driving and adjusting blinds/shutters and awnings over radio. Functions via radio control: 2gang switch, blind switch and light scene control. Functions via extension unit: 2gang switch, blind switch and send radio control telegram. Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Inputs: 2. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 2x Normally open contact, potential-bound.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6705-101-500 | 6700-0-0042 | | 1/10 | |



6770-500

### KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6770-500 | 6770-0-0002 | | 1 | |

# WaveLINE Wireless Control – Window Sensor, Universal Detector



6730-214

## WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| Busch-Duro 2000® SI white | – | 6730-212 | 6730-0-0001 | | 1 | |
| Reflex SI alpine white | – | 6730-214 | 6730-0-0002 | | 1 | |



6730-24G

## WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. For ABB i-bus® KNX devices 6110 U, 6114 U, 6120 U-102.
Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| alpha platinum [3] | – | 6730-20 | 6730-0-0007 | | 1 | |
| bronze [3] | – | 6730-21 | 6730-0-0008 | | 1 | |
| ivory | – | 6730-22G | 6730-0-0009 | | 1 | |
| studio white matt | – | 6730-24 | 6730-0-0010 | | 1 | |
| studio white | – | 6730-24G | 6730-0-0011 | | 1 | |
| palladium [3] | – | 6730-260 | 6730-0-0005 | | 1 | |
| titanium [3] | – | 6730-266 | 6730-0-0006 | | 1 | |

# WaveLINE Wireless Control – Window Sensor, Universal Detector



6730-84

## WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| future® linear | | | | | | |
| anthracite | – | 6730-81 | 6730-0-0014 | | 1 | |
| ivory white | – | 6730-82 | 6730-0-0015 | | 1 | |
| aluminium silver | – | 6730-83 | 6730-0-0016 | | 1 | |
| studio white | – | 6730-84 | 6730-0-0017 | | 1 | |
| studio white, matt | – | 6730-884 | 6730-0-0026 | | 1 | |
| black matt | – | 6730-885 | 6730-0-0027 | | 1 | |
| solo® | | | | | | |
| ivory white | – | 6730-82 | 6730-0-0015 | | 1 | |
| studio white | – | 6730-84 | 6730-0-0017 | | 1 | |
| grey metallic | – | 6730-803 | 6730-0-0025 | | 1 | |
| yellow | – | 6730-815 | 6730-0-0024 | | 1 | |
| Busch-axcent® | | | | | | |
| studio white | – | 6730-84 | 6730-0-0017 | | 1 | |
| chalet-white | – | 6730-896-500 | 6730-0-0066 | | 1 | |
| carat® | | | | | | |
| anthracite | – | 6730-81 | 6730-0-0014 | | 1 | |
| ivory white | – | 6730-82 | 6730-0-0015 | | 1 | |
| studio white | – | 6730-84 | 6730-0-0017 | | 1 | |
| pure stainless steel | | | | | | |
| stainless steel | – | 6730-866 | 6730-0-0023 | | 1 | |

# WaveLINE Wireless Control – Window Sensor, Universal Detector



6404 U

## Busch-Universal relay switch insert

For switching incandescent lamps, 230 V tungsten halogen lamps, fluorescent lamps and low-voltage halogen lamps, that are actuated via transformers. 3 wire connection (neutral conductor required). With operating mode switch for operating mode: switch, time switch. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x Normally open contact, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated current: 10 AX.
Rated power: 2300 W/VA.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| | – | 6404 U | 6401-0-0055 | | 1 | |



6595 U

## Universal Dimmer Switch Insert

For dimming and switching of incadescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional or electronic transformers. 2-wire connection (neutral conductor not required). With soft ON/OFF function. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). Do not operate conventional transformers and electronic transformers together on the universal dimmer switch insert. For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x electronic output, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated power: 60 – 450 W/VA.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| R,L,C | – | 6595 U | 6590-0-0188 | | 1 | |



6720-64

## WaveLINE window sensor

For monitoring and transmission of the current window handle position (window open, closed, tilted). The WaveLINE window sensor transmits the current window handle position immediately upon operation. Existing window handle is used. The WaveLINE window sensor is installed between the existing window handle and window frame. Suitable for window handle: 7 mm square fastener, 43 mm attachment screw separation, lifter dia. 10 and 12 mm, max. mounting plate size 34 x 77 mm (WxH). No wire laying required. Accessories for assembly (square fastener extension, screws, adapter for lifter) of the WaveLINE window position sensor included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Free-field range: approx. 100 m. Send frequency: 868 MHz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white matt | – | 6720-64 | 6720-0-0001 | | 1 | |
| basalt black | – | 6720-65 | 6720-0-0002 | | 1 | |
| stainless steel [1] | – | 6720-66 | 6720-0-0003 | | 1 | |



6721-64

## WaveLINE universal sensor

For monitoring and transmission of the state (open, closed) of dormer windows, skylights, doors and gates. For window surveillance with open fireplace and extractor hood pursuant to Article 4 of the German Fire Prevention Regulations. Additional connection option for an external, potential-free sensor (choice of normally closed or normally open contact). Isolated evaluation and monitoring of channels. The WaveLINE universal sensor immediately transmits the current information when there is a change in state. Addition cyclic transmission for monitoring of the transmission link and the fault-free state of equipment. Attachment of WaveLINE universal sensor and magnets by using adhesive foil or screws. Accessories (adhesive foil, screws, magnet) included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. External sensor max. wire length: 5 m. External sensor terminal connection diameter : 0.14...0.5 mm² (single wire). Free-field range: approx. 100 m. Send frequency: 868 MHz.

| Description | Mod. width | Order details | | Price 1 pc. | Pack unit | Weight 1 pc. |
|---|---|---|---|---|---|---|
| | | Type | Order code | € | pc. | kg |
| studio white matt | – | 6721-64 | 6720-0-0004 | | 1 | |
| basalt black | – | 6721-65 | 6720-0-0005 | | 1 | |

[1] Surface painted.

# Solutions for electrical distribution in buildings
## free@home

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# free@home
## Endless installation possibilities

Perfect daily routine. With ABB-free@home® the entire home can be controlled as usual with switches, and now even more practical: with the smartphone, tablet, or computer. Via touch or voice control.









- Blind
- Light
- Heating
- Air-conditioning
- Door communication



**Open for new ideas**
With ABB-free@home® all functions in the house can be managed automatically – according to time plan, temperature and movement detector – or be called up at the touch of a button. And here, every combination of the various functions is possible.



**Blinds**
Whether blind, roller blind, awning or roller door – with the ABB-free@home® home automation, sun protection and energy saving could not be easier. Opening and closing as well as adjustment of lamella can be controlled with a switch, ABB-free@homeTouch or app for smartphone or tablet. In addition, a conventional weather station for protection during a storm, a timer or astro function can be used. It automatically adjusts the blind according to sunrise and sunset.



**Light control**
Life begins with light. With ABB-free@home® it can be optimally used, whether for illuminating individual rooms or the entire house. For example, with striking light scenes – for different moods and to suit the occasion. A pleasant side effect here is the cost-saving and environmentally friendly use of energy.



**Heating and air-conditioning**
Providing comfort and energy-saving. The optimum room temperature can be adjusted with ABB-free@home® individually or according to the specific requirement, depending on the time of day and the function of the room. In ECO mode, the temperature is automatically lowered at night or when the house is empty. The heating can be automatically shut off when a window is open. This reduces the consumption of energy – whether for conventional heaters or under-floor heating.



**Door communication**
The ABB-Welcome door communication system can be integrated into ABB-free@home®. The door communication and home automation can be used together with ABB-free@homeTouch 7“. For example, the light switches on when the doorbell rings to see visitors more clearly. And for reasons of safety, the video camera records pictures of visitors at the door when no one is home.



**Picture directly on the display**
Practical and comfortable. The image of the video camera can be displayed on the tablet or smartphone via the Welcome app. In this way, any visitors who ring the bell can be recognised even if you are not at home (requires the ABB-Welcome IP gateway and ABB-Welcome outdoor video station).

# As easy as shifting the armchair
## Creating scenes

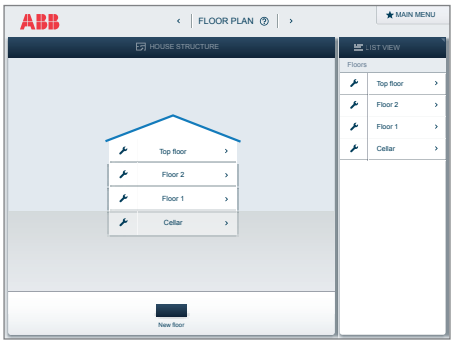
Intuitive operation. The ABB-free@home® app is easy to understand. To start with, all available devices in the rooms are activated on the display, allowing the favourite settings to be made immediately via drag-and-drop.



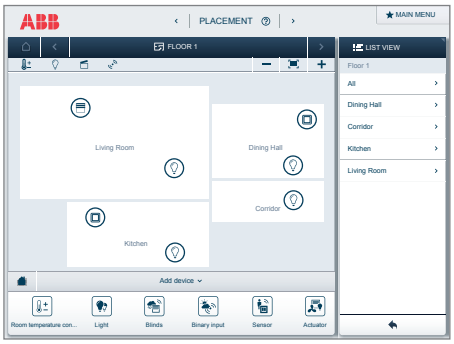
### Easy to install – and even easier to operate

Operation of the ABB-free@home® app has been optimized for use in day to day life. The so-called wizard guides one through the system. The most important functions are illustrated very clearly with icons that are self explanatory. A personal password can be activated when logging in, for maximum safety. This protects the home automation against unauthorized access.






**The house**
First the electrician sets up the floor plan with its floors and rooms.




**Assigning**
Then the sensors in the app are integrated in the floor plan and assigned in the system.



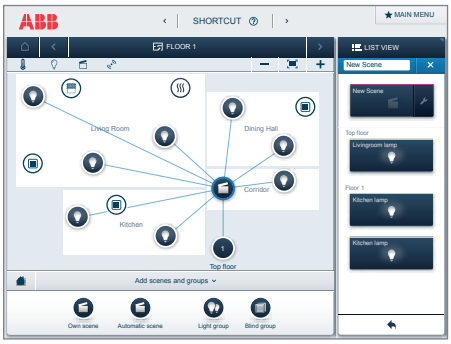

**Combining**
And finally, the elements can be combined according to wish and requirement.



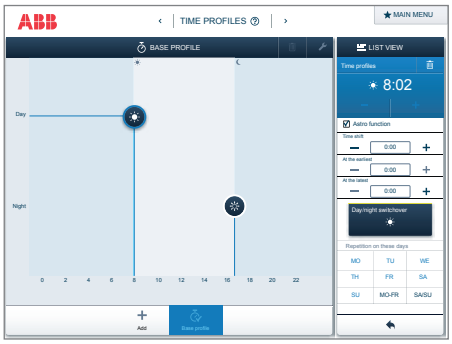
## Simple and time-saving

The initial configuration of the system by the electrician is carried out via app. Operation is particularly fast and saves high-cost working hours.

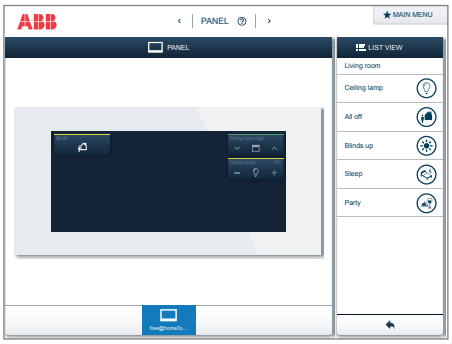





**Scene control**
The user can easily combine the switches and devices available in each room to create personal scenes. The lighting scene for an evening on the sofa, for example.




**Time control**
Roller blinds can be automatically moved and lights can be switched at any time or dependent on sunrise or sundown.




**Panel setting**
The most important functions can be controlled from a central location in the house and easily changed later at any time.

# Simply less effort
# This saves valuable working hours

As easy as ever. Only few components are required for the installation of ABB-free@home®. For the direct activation of light, the entire system only requires a bus cable in green, the sensor/actuator unit, a power supply and a System Access Point for programming.



01



02 03 04 05



## The System Access Point

The System Access Point is the nerve center of the ABB-free@home® system. It provides access for computer, tablet or smartphone via WLAN. This allows the functions of the system to be defined and remote controlled – even after installation. The System Access Point can also be combined with a network router – via LAN or WLAN. Just connect and you're done. For convenience, the System Access Point makes its own WLAN and the software necessary for project planning and commissioning available. This makes you independent from the structural conditions and no additional software is required. As soon as you are finished with programming you can save the status and restore it again at any time.

## The actuators and sensors

Actuators for switching, dimming and control are available for ABB-free@home®. The flush-mounted binary inputs also allow the integration of conventional sensors, such as window contacts, for example. Push-buttons, room temperature controllers and movement detectors are available as sensors.

01 System Access Point

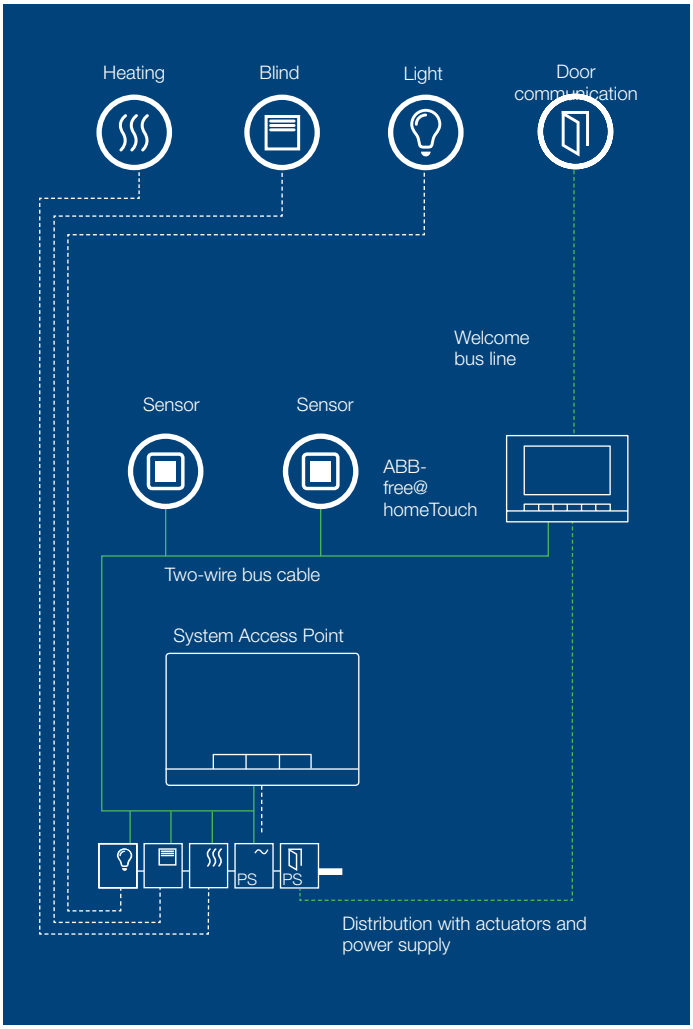
02 Sensor, 1gang

03 Switch actuator, 4gang

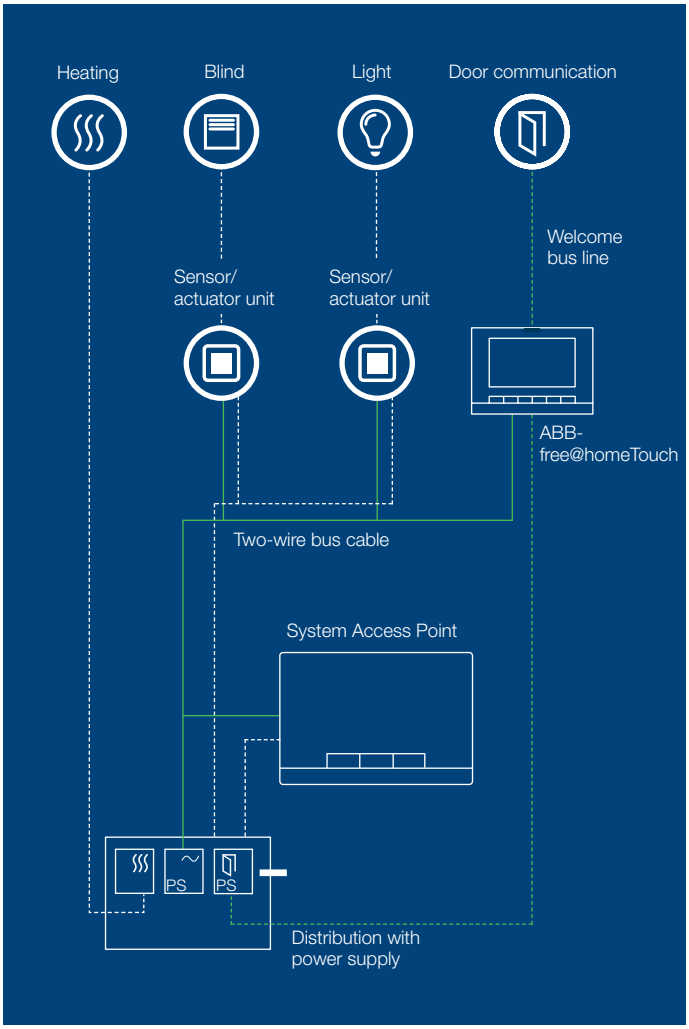
04 Binary input, 2gang, flush-mounted

05 Power supply

## Central control




## Decentralized control




### Central installation distributor with rail-mounting actuator

The installation of central rail-mounting actuators in the switch cabinet makes the installation of the sensors even easier – as only the bus line is located in the flush-mounted box. With this method, the costs for each channel can be reduced.

### Sensor/actuator unit for decentralized control

All in one. In case of the sensor/actuator unit, both the sensor and actuator are located in a single device to save space. The basic function of the unit is pre-configured, which makes programming the basic function unnecessary – but possible if required. The 230-Volt line is wired as usual.





**Sensor/actuator unit**

The sensor/actuator unit combines a control element and, for example, a switch actuator in the one flush-mounted housing. It is installed in the same way as a flush-mounted switch. The device has already been pre-programmed: which means that the light can be switched on directly after installation – without programming. The sensor/actuator unit can, of course, be freely re-configured via the user interface, just like all other sensors and actuators.



**Sensor unit, 1gang [1] [2]**
**For ABB-free@home®**
For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator.
Only to be used in combination with ABB-free@home 1gang rockers.
The bus can be connected via enclosed terminal block.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 23 mm
Mounting depth: 9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180075 | SU-F-1.0.1 | 6220-0-0117 | | | 1 |



**Sensor unit, 2gang [1] [2]**
**For ABB-free@home®**
For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator.
Only to be used in combination with ABB-free@home 2gang rockers.
The bus can be connected via enclosed terminal block.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 23 mm
Mounting depth: 9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180082 | SU-F-2.0.1 | 6220-0-0118 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Movement detector [1] [2]**
**For ABB-free@home®**
With select lens for detection with animal access.
For automatic switching of ABB-free@home® actuators dependent on movement and brightness.
Switch-off delay of the actuator can be programmed via the web interface of the System Access Point.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Detection range: frontal: 6 m, lateral: 3 m
Detection angle: 180 °
Brightness limit value: 1 Lux - 500 Lux
Mounting height: 1.1 m - 1.3 m
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 30 mm
Mounting depth: 9 mm
Position for installation: vertical

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 179758 | MD-F-1.0.1-212 | 6220-0-0218 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 179796 | MD-F-1.0.1-214 | 6220-0-0219 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 179840 | MD-F-1.0.1-81 | 6220-0-0212 | | | 1 |
| 82 ivory white | 203675 | MD-F-1.0.1-82 | 6220-0-0530 | | | |
| 83 aluminium silver | 179925 | MD-F-1.0.1-83 | 6220-0-0213 | | | |
| 84 studio white | 179871 | MD-F-1.0.1-84 | 6220-0-0214 | | | |
| 803 grey metallic | 204009 | MD-F-1.0.1-803 | 6220-0-0564 | | | |
| 815 yellow | 204153 | MD-F-1.0.1-815 | 6220-0-0581 | | | |
| 840 antique brass | 195741 | MD-F-1.0.1-840 | 6220-0-0385 | | | |
| 866 stainless stell | 203842 | MD-F-1.0.1-866 | 6220-0-0547 | | | |
| 884 studiowhite matt | 204481 | MD-F-1.0.1-884 | 6220-0-0615 | | | |
| 885 black matt | 204658 | MD-F-1.0.1-885 | 6220-0-0632 | | | |
| 896 chalet white | 204313 | MD-F-1.0.1-896 | 6220-0-0598 | | | |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Room thermostat [1] [2])**
**For ABB-free@home®**
Heating/cooling operation.
Control element with room temperature controller function for controlling commercially available actuating drives in connection with HA-M-0.6.1, HA-M-0.12.1, FCA-M-2.3.1.
With display of set-value temperature.
Only to be used in combination with ABB-free@home® room temperature controller cover plates CP-RTC-xxx.
The bus can be connected via enclosed terminal block.
Control element: Floating rocker for the selection of set values and operating modes
Display elements: LCD showing operation modes
Bus voltage: 24 V
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 30 mm
Mounting depth: 14 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180099 | RTC-F-1 | 6220-0-0122 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**ABB-free@home*Touch* 7” [1] [2]**
**Indoor video station with 17.8 cm (7”) touch display**
For ABB-free@home® and ABB-Welcome®.
For the central control of up to 16 configurable free@home® functions and display of the video image of an outdoor door communication station.
During the conversation a picture of the visitor can be taken and stored in the picture memory.
For door calls during absence three pictures of the visitor are automatically stored in the picture memory.
With hands-free function, volume is adjustable.
Easy operation keys for door openers, mute function and light.
Different bell sounds are adjustable for door and floor ringing; five polyphone bell sounds are available.
Volume of bell sounds is adjustable.
SD card slot for extension of the picture memory.
Suitable as room temperature controller extension unit.
For surface mounting.
The bus can be connected via enclosed terminal block.
Display size: 17,8 cm (7”)
Display resolution: 800 x 480
Display elements: TFT Touch Display
Protection class (Device): IP 30
Dimensions: (L x W x D): 155 mm x 218 mm x 29 mm

| Color | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 611 white | 182420 | DP7-S-611 | 8300-0-0356 | | | 1 |
| 625 black | 182383 | DP7-S-625 | 8300-0-0357 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**ABB-free@homeTouch 4.3“**
**For the central control of up to 16 configurable ABB-free@home® functions.**
For the display of configurable system messages.
A configurable primary function can be triggered with a multi-touch gesture.
Capacitive touch screen with closed glass surface.
With integrated room temperature controller and temperature sensor.
In connection with temperature sensor 6226/T the integrated room temperature controller can be fitted with a remote sensor.
Suitable as room temperature controller extension unit (up to 8).
Requires additional power supply 24 VDC; e.g. 6358-102
Display size: 10.9 cm (4.3“)
Display resolution: 480 x 854
Mounting height: 8 mm
Control element: freely programmable touch surfaces, Display elements: 1 LCD display,
Bus voltage: 24 V-,
Protection class (Device): IP 20, Temperature range (Device): -5 °C to 40 °C,
Dimensions: (L x W x D): 104 mm x 143 mm x 53 mm,
No additional commissioning software is required., Programming only with bus voltage applied via the web interface of the System Access Point.

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 625 black | 180198 | DP4-1-625 | 6220-0-0120 | | | |
| 611 white | 180235 | DP4-1-611 | 6220-0-0119 | | | |



**Temperature sensor**
**For ABB-free@home®**
For use as remote sensor.
Line type: H03 VV-F
Cable length: 4 m
Type: NTC 10 kohm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 213315 | 6226/T | 6220-0-0720 | | | 1 |



**Flush-mounted installation box**
**For ABB-free@home®**
VFor flush-mounted und hollow-wall installation of the ABB-free@homeTouch 4.3“ 6226-6XX.
Windproof.
Installation dimensions (H x W x D): 82 mm x 123 mm x 50 mm
Installation depth: 50 mm
Mounting depth: 50 mm
Halogen free.

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 202296 | DP4-F | 6220-0-0389 | | | 1 |

# free@home
## Sensor/actuator combinations



**Switch actuator sensor, 1/1gang [1] [2]**
**For ABB-free@home®**
For switching 127 V~/230 V~ consumers.
With integrated switch actuator.
Switching function is available also without prior programming (pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 1gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x Normally open contact, potential free
Suitable for: ohmic
Rated current: 10 A
Output voltage: 230 V~
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Rated power: 2300 VA
Suitable for: inductive
Rated current: 10 AX
Rated power: 2300 VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180112 | SSA-F-1.1.1 | 6220-0-0123 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Switch actuator sensor, 2/1gang [1] [2]**
**For ABB-free@home®**
For switching 127 V~/230 V~ consumers.
With integrated switch actuator.
Switching function is available also without prior programming (left sensor channel is pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
The right sensor channel for programming additional functions (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 2gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x Normally open contact, potential free
Suitable for: ohmic
Rated current: 10 A
Output voltage: 230 V~
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Rated power: 2300 VA
Suitable for: inductive
Rated current: 10 AX
Rated power: 2300 VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180129 | SSA-F-2.1.1 | 6220-0-0124 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Switch actuator sensor, 2/2gang [1] [2]**
**For ABB-free@home®**
For switching 127 V~/230 V~ consumers.
With integrated 2gang switch actuator.
Switching function is available also without prior programming (both sensor channels are pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 2gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 2x Normally open contact, potential free
Suitable for: ohmic
Rated current: 5 A
Output voltage: 230 V~
Rated power: 1380 W
Suitable for: capacitive
Rated current: 4 AX
Rated power: 920 VA
Suitable for: inductive
Rated current: 4 AX
Rated power: 920 VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180136 | SSA-F-2.2.1 | 6220-0-0125 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Dimming actuator sensor, 1/1gang [1] [2] [3]**
**For ABB-free@home®**
For dimming 230 V~ loads.
With integrated universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.
For dimmable Retrofit-LEDs (LEDi).
Dimming function is available also without prior programming (pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 1gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x dimming channel
Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.
Rated power: 10 - 180 W/VA
Suitable for: LEDi and energy-saving bulbs; typical
Rated power: 2 - 80 W/VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180143 | SDA-F-1.1.1 | 6220-0-0126 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.
3) The power is supplied by the ABB-Welcome system controller 83300.



**Dimming actuator sensor, 2/1gang [1] [2] [3]**
**For ABB-free@home®**
For dimming 230 V~ loads.
With integrated universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.
For dimmable Retrofit-LEDs (LEDi).
Dimming function is available also without prior programming (left sensor channel is pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
The right sensor channel for programming additional functions (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 2gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x dimming channel
Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.
Rated power: 10 - 180 W/VA
Suitable for: LEDi and energy-saving bulbs; typical
Rated power: 2 - 80 W/VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180150 | SDA-F-2.1.1 | 6220-0-0127 | | | 1 |



1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.
3) The power is supplied by the ABB-Welcome system controller 83300.



**Blind actuator sensor, 1/1gang [1] [2]**
**For ABB-free@home®**
For controlling blind or awning motors.
With integrated blind actuator.
Blind function is available also without prior programming (pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 1gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x Change-over contacts/normally open contact, potential-bound
Suitable for: Operation mode Blind
Rated current: 4 A
Output voltage: 230 V~
Rated power: 920 VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180167 | SBA-F-1.1.1 | 6220-0-0128 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Blind actuator sensor, 2/1gang [1] [2]**
**For ABB-free@home®**
For controlling blind or awning motors.
With integrated blind actuator.
Blind function is available also without prior programming (left sensor channel is pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
The right sensor channel for programming additional functions (groups, scenes, etc.).
Only to be used in combination with ABB-free@home 2gang rockers.
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Control element: Switch contacts top/bottom
Display elements: LED as light for orientation or display of the switching state
Bus voltage: 24 V
Outputs: 1x Change-over contacts/normally open contact, potential-bound
Suitable for: Operation mode Blind
Rated current: 4 A
Output voltage: 230 V~
Rated power: 920 VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm
Mounting depth: 32 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180174 | SBA-F-2.1.1 | 6220-0-0129 | | | 1 |



1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

# free@home
## Sensor/actuator combinations



**Movement detector/switch actuator, 1gang [1] [2]**
**For ABB-free@home®**
With select lens for detection with animal access.
For automatic switching of ABB-free@home® actuators dependent on movement and brightness.
Switch-off delay of the actuator can be programmed via the web interface of the System Access Point.
For switching 127 V~/230 V~ consumers.
With integrated switch actuator.
Switching function is available also without prior programming (pre-configured).
Configuration can be changed later via the web interface (groups, scenes, etc.).
The bus can be connected via enclosed terminal block.
When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.
Bus voltage: 24 V
Outputs: 1x Normally open contact, potential free
Suitable for: ohmic
Rated current: 10 A
Output voltage: 230 V~
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Rated power: 2300 VA
Suitable for: inductive
Rated current: 10 AX
Rated power: 2300 VA
Detection range: frontal: 6 m, lateral: 3 m
Detection angle: 180 °
Brightness limit value: 1 Lux - 500 Lux
Mounting height: 1.1 m - 1.3 m
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 71 mm x 71 mm x 53 mm
Mounting depth: 32 mm
Position for installation: vertical

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

### Busch-Duro 2000® SI

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 179765 | MSA-F-1.1.1-212 | 6220-0-0220 | | | 1 |

### Reflex SI

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 179802 | MSA-F-1.1.1-214 | 6220-0-0221 | | | 1 |

### future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 179840 | MSA-F-1.1.1-81 | 6220-0-0215 | | | 1 |
| 82 ivory white | 203682 | MSA-F-1.1.1-82 | 6220-0-0531 | | | 1 |
| 83 aluminium silver | 179949 | MSA-F-1.1.1-83 | 6220-0-0216 | | | 1 |
| 84 studio white | 179895 | MSA-F-1.1.1-84 | 6220-0-0217 | | | 1 |
| 803 grey metallic | 204016 | MSA-F-1.1.1-803 | 6220-0-0565 | | | 1 |
| 815 yellow | 204160 | MSA-F-1.1.1-815 | 6220-0-0582 | | | 1 |
| 840 antique brass | 195758 | MSA-F-1.1.1-840 | 6220-0-0386 | | | 1 |
| 866 stainless stell | 203859 | MSA-F-1.1.1-866 | 6220-0-0548 | | | 1 |
| 884 studiowhite matt | 204498 | MSA-F-1.1.1-884 | 6220-0-0616 | | | 1 |
| 885 black matt | 204665 | MSA-F-1.1.1-885 | 6220-0-0633 | | | 1 |
| 896 chalet white | 204320 | MSA-F-1.1.1-896 | 6220-0-0599 | | | 1 |



## Rocker
### 1gang, without printing
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180747 | SR-1-212 | 6220-0-0182 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181133 | SR-1-214 | 6220-0-0183 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181492 | SR-1-81 | 6220-0-0137 | | | 1 |
| 82 ivory white | 203453 | SR-1-82 | 6220-0-0516 | | | 1 |
| 83 aluminium silver | 182178 | SR-1-83 | 6220-0-0138 | | | 1 |
| 84 studio white | 181836 | SR-1-84 | 6220-0-0139 | | | 1 |
| 803 grey metallic | 203866 | SR-1-803 | 6220-0-0550 | | | 1 |
| 815 yellow | 204023 | SR-1-815 | 6220-0-0567 | | | 1 |
| 840 antique brass | 195598 | SR-1-840 | 6220-0-0371 | | | 1 |
| 866 stainless stell | 203699 | SR-1-866 | 6220-0-0533 | | | 1 |
| 884 studiowhite matt | 204337 | SR-1-884 | 6220-0-0601 | | | 1 |
| 885 black matt | 204511 | SR-1-885 | 6220-0-0618 | | | 1 |
| 896 chalet white | 204177 | SR-1-896 | 6220-0-0584 | | | 1 |



## Rocker
### 1gang, with “Light” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180754 | SRL-1-212 | 6220-0-0184 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181140 | SRL-1-214 | 6220-0-0185 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181515 | SRL-1-81 | 6220-0-0140 | | | 1 |
| 82 ivory white | 203460 | SRL-1-82 | 6220-0-0517 | | | 1 |
| 83 aluminium silver | 182185 | SRL-1-83 | 6220-0-0141 | | | 1 |
| 84 studio white | 181843 | SRL-1-84 | 6220-0-0142 | | | 1 |
| 803 grey metallic | 203873 | SRL-1-803 | 6220-0-0551 | | | 1 |
| 815 yellow | 204030 | SRL-1-815 | 6220-0-0568 | | | 1 |
| 840 antique brass | 195604 | SRL-1-840 | 6220-0-0372 | | | 1 |
| 866 stainless stell | 203705 | SRL-1-866 | 6220-0-0534 | | | 1 |
| 884 studiowhite matt | 204344 | SRL-1-884 | 6220-0-0602 | | | 1 |
| 885 black matt | 204528 | SRL-1-885 | 6220-0-0619 | | | 1 |
| 896 chalet white | 204184 | SRL-1-896 | 6220-0-0585 | | | 1 |



## Rocker
### 1gang, with “Blind” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180761 | SRB-1-212 | 6220-0-0186 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181157 | SRB-1-214 | 6220-0-0187 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181522 | SRB-1-81 | 6220-0-0143 | | | 1 |
| 82 ivory white | 203477 | SRB-1-82 | 6220-0-0518 | | | 1 |
| 83 aluminium silver | 182192 | SRB-1-83 | 6220-0-0144 | | | 1 |
| 84 studio white | 181850 | SRB-1-84 | 6220-0-0145 | | | 1 |
| 803 grey metallic | 203880 | SRB-1-803 | 6220-0-0552 | | | 1 |
| 815 yellow | 204047 | SRB-1-815 | 6220-0-0569 | | | 1 |
| 840 antique brass | 195611 | SRB-1-840 | 6220-0-0373 | | | 1 |
| 866 stainless stell | 203712 | SRB-1-866 | 6220-0-0535 | | | 1 |
| 884 studiowhite matt | 204368 | SRB-1-884 | 6220-0-0603 | | | 1 |
| 885 black matt | 204535 | SRB-1-885 | 6220-0-0620 | | | 1 |
| 896 chalet white | 204191 | SRB-1-896 | 6220-0-0586 | | | 1 |



## Rocker
### 1gang, with “Scene” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180778 | SRS-1-212 | 6220-0-0188 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181171 | SRS-1-214 | 6220-0-0189 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181539 | SRS-1-81 | 6220-0-0146 | | | 1 |
| 82 ivory white | 203484 | SRS-1-82 | 6220-0-0519 | | | 1 |
| 83 aluminium silver | 182215 | SRS-1-83 | 6220-0-0147 | | | 1 |
| 84 studio white | 181867 | SRS-1-84 | 6220-0-0148 | | | 1 |
| 803 grey metallic | 203897 | SRS-1-803 | 6220-0-0553 | | | 1 |
| 815 yellow | 204054 | SRS-1-815 | 6220-0-0570 | | | 1 |
| 840 antique brass | 195628 | SRS-1-840 | 6220-0-0374 | | | 1 |
| 866 stainless stell | 203729 | SRS-1-866 | 6220-0-0536 | | | 1 |
| 884 studiowhite matt | 204351 | SRS-1-884 | 6220-0-0604 | | | 1 |
| 885 black matt | 204542 | SRS-1-885 | 6220-0-0621 | | | 1 |
| 896 chalet white | 204207 | SRS-1-896 | 6220-0-0587 | | | 1 |



## Rocker
### 1gang, with “Dimmer” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180785 | SRD-1-212 | 6220-0-0190 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181188 | SRD-1-214 | 6220-0-0191 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181546 | SRD-1-81 | 6220-0-0149 | | | 1 |
| 82 ivory white | 203491 | SRD-1-82 | 6220-0-0520 | | | 1 |
| 83 aluminium silver | 182222 | SRD-1-83 | 6220-0-0150 | | | 1 |
| 84 studio white | 181874 | SRD-1-84 | 6220-0-0151 | | | 1 |
| 803 grey metallic | 203910 | SRD-1-803 | 6220-0-0554 | | | 1 |
| 815 yellow | 204061 | SRD-1-815 | 6220-0-0571 | | | 1 |
| 840 antique brass | 195635 | SRD-1-840 | 6220-0-0375 | | | 1 |
| 866 stainless stell | 203743 | SRD-1-866 | 6220-0-0537 | | | 1 |
| 884 studiowhite matt | 204382 | SRD-1-884 | 6220-0-0605 | | | 1 |
| 885 black matt | 204559 | SRD-1-885 | 6220-0-0622 | | | 1 |
| 896 chalet white | 204214 | SRD-1-896 | 6220-0-0588 | | | 1 |



## Rocker
### 2gang left/right, without printing
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180792 | SR-2-212 | 6220-0-0192 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181195 | SR-2-214 | 6220-0-0193 | 10 | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181553 | SR-2-81 | 6220-0-0152 | | | 1 |
| 82 ivory white | 203507 | SR-2-82 | 6220-0-0521 | | | 1 |
| 83 aluminium silver | 182239 | SR-2-83 | 6220-0-0153 | | | 1 |
| 84 studio white | 181881 | SR-2-84 | 6220-0-0154 | | | 1 |
| 803 grey metallic | 203927 | SR-2-803 | 6220-0-0555 | | | 1 |
| 815 yellow | 204078 | SR-2-815 | 6220-0-0572 | | | 1 |
| 840 antique brass | 195642 | SR-2-840 | 6220-0-0376 | | | 1 |
| 866 stainless stell | 203750 | SR-2-866 | 6220-0-0538 | | | 1 |
| 884 studiowhite matt | 204399 | SR-2-884 | 6220-0-0606 | | | 1 |
| 885 black matt | 204566 | SR-2-885 | 6220-0-0623 | | | 1 |
| 896 chalet white | 204221 | SR-2-896 | 6220-0-0589 | | | 1 |



## Rocker
### 2gang left, with “Light” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180808 | SRL-2-L-212 | 6220-0-0194 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181218 | SRL-2-L-214 | 6220-0-0195 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181560 | SRL-2-L-81 | 6220-0-0155 | | | 1 |
| 82 ivory white | 203606 | SRL-2-L-82 | 6220-0-0522 | | | 1 |
| 83 aluminium silver | 182246 | SRL-2-L-83 | 6220-0-0156 | | | 1 |
| 84 studio white | 181898 | SRL-2-L-84 | 6220-0-0157 | | | 1 |
| 803 grey metallic | 203934 | SRL-2-L-803 | 6220-0-0556 | | | 1 |
| 815 yellow | 204085 | SRL-2-L-815 | 6220-0-0573 | | | 1 |
| 840 antique brass | 195659 | SRL-2-L-840 | 6220-0-0377 | | | 1 |
| 866 stainless stell | 203767 | SRL-2-L-866 | 6220-0-0539 | | | 1 |
| 884 studiowhite matt | 204412 | SRL-2-L-884 | 6220-0-0607 | | | 1 |
| 885 black matt | 204573 | SRL-2-L-885 | 6220-0-0624 | | | 1 |
| 896 chalet white | 204238 | SRL-2-L-896 | 6220-0-0590 | | | 1 |



## Rocker
## 2gang left/right, “Blind” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180815 | SRB-2-212 | 6220-0-0196 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181225 | SRB-2-214 | 6220-0-0197 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181577 | SRB-2-81 | 6220-0-0158 | | | 1 |
| 82 ivory white | 203613 | SRB-2-82 | 6220-0-0523 | | | 1 |
| 83 aluminium silver | 182253 | SRB-2-83 | 6220-0-0159 | | | 1 |
| 84 studio white | 181911 | SRB-2-84 | 6220-0-0160 | | | 1 |
| 803 grey metallic | 203941 | SRB-2-803 | 6220-0-0557 | | | 1 |
| 815 yellow | 204092 | SRB-2-815 | 6220-0-0574 | | | 1 |
| 840 antique brass | 195666 | SRB-2-840 | 6220-0-0378 | | | 1 |
| 866 stainless stell | 203774 | SRB-2-866 | 6220-0-0540 | | | 1 |
| 884 studiowhite matt | 204429 | SRB-2-884 | 6220-0-0608 | | | 1 |
| 885 black matt | 204580 | SRB-2-885 | 6220-0-0625 | | | 1 |
| 896 chalet white | 204245 | SRB-2-896 | 6220-0-0591 | | | 1 |



## Rocker
### 2gang left, with “Scene” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180839 | SRS-2-L-212 | 6220-0-0198 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181232 | SRS-2-L-214 | 6220-0-0199 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181584 | SRS-2-L-81 | 6220-0-0161 | | | 1 |
| 82 ivory white | 203620 | SRS-2-L-82 | 6220-0-0524 | | | 1 |
| 83 aluminium silver | 182260 | SRS-2-L-83 | 6220-0-0162 | | | 1 |
| 84 studio white | 181928 | SRS-2-L-84 | 6220-0-0163 | | | 1 |
| 803 grey metallic | 203958 | SRS-2-L-803 | 6220-0-0558 | | | 1 |
| 815 yellow | 204108 | SRS-2-L-815 | 6220-0-0575 | | | 1 |
| 840 antique brass | 195673 | SRS-2-L-840 | 6220-0-0379 | | | 1 |
| 866 stainless stell | 203781 | SRS-2-L-866 | 6220-0-0541 | | | 1 |
| 884 studiowhite matt | 204436 | SRS-2-L-884 | 6220-0-0609 | | | 1 |
| 885 black matt | 204597 | SRS-2-L-885 | 6220-0-0626 | | | 1 |
| 896 chalet white | 204252 | SRS-2-L-896 | 6220-0-0592 | | | 1 |



## Rocker
## 2gang left, with “Dimmer” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

### Busch-Duro 2000® SI

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180846 | SRD-2-L-212 | 6220-0-0200 | | | 1 |

### Reflex SI

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181249 | SRD-2-L-214 | 6220-0-0201 | | | 1 |

### future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181591 | SRD-2-L-81 | 6220-0-0164 | | | 1 |
| 82 ivory white | 203637 | SRD-2-L-82 | 6220-0-0525 | | | 1 |
| 83 aluminium silver | 182277 | SRD-2-L-83 | 6220-0-0165 | | | 1 |
| 84 studio white | 181935 | SRD-2-L-84 | 6220-0-0166 | | | 1 |
| 803 grey metallic | 203965 | SRD-2-L-803 | 6220-0-0559 | | | 1 |
| 815 yellow | 204115 | SRD-2-L-815 | 6220-0-0576 | | | 1 |
| 840 antique brass | 195680 | SRD-2-L-840 | 6220-0-0380 | | | 1 |
| 866 stainless stell | 203798 | SRD-2-L-866 | 6220-0-0542 | | | 1 |
| 884 studiowhite matt | 204443 | SRD-2-L-884 | 6220-0-0610 | | | 1 |
| 885 black matt | 204610 | SRD-2-L-885 | 6220-0-0627 | | | 1 |
| 896 chalet white | 204269 | SRD-2-L-896 | 6220-0-0593 | | | 1 |



### Rocker
### 2gang right, with “Light” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180853 | SRL-2-R-212 | 6220-0-0202 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181263 | SRL-2-R-214 | 6220-0-0203 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181614 | SRL-2-R-81 | 6220-0-0167 | | | 1 |
| 82 ivory white | 203651 | SRL-2-R-82 | 6220-0-0527 | | | 1 |
| 83 aluminium silver | 182284 | SRL-2-R-83 | 6220-0-0168 | | | 1 |
| 84 studio white | 181942 | SRL-2-R-84 | 6220-0-0169 | | | 1 |
| 803 grey metallic | 203989 | SRL-2-R-803 | 6220-0-0561 | | | 1 |
| 815 yellow | 204139 | SRL-2-R-815 | 6220-0-0578 | | | 1 |
| 840 antique brass | 195697 | SRL-2-R-840 | 6220-0-0381 | | | 1 |
| 866 stainless stell | 203828 | SRL-2-R-866 | 6220-0-0544 | | | 1 |
| 884 studiowhite matt | 204467 | SRL-2-R-884 | 6220-0-0612 | | | 1 |
| 885 black matt | 204634 | SRL-2-R-885 | 6220-0-0629 | | | 1 |
| 896 chalet white | 204283 | SRL-2-R-896 | 6220-0-0595 | | | 1 |



## Rocker
## 2gang right, with “Scene” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180884 | SRS-2-R-212 | 6220-0-0206 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181287 | SRS-2-R-214 | 6220-0-0207 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181638 | SRS-2-R-81 | 6220-0-0173 | | | 1 |
| 82 ivory white | 203668 | SRS-2-R-82 | 6220-0-0528 | | | 1 |
| 83 aluminium silver | 182314 | SRS-2-R-83 | 6220-0-0174 | | | 1 |
| 84 studio white | 181966 | SRS-2-R-84 | 6220-0-0175 | | | 1 |
| 803 grey metallic | 203996 | SRS-2-R-803 | 6220-0-0562 | | | 1 |
| 815 yellow | 204146 | SRS-2-R-815 | 6220-0-0579 | | | 1 |
| 840 antique brass | 195710 | SRS-2-R-840 | 6220-0-0382 | | | 1 |
| 866 stainless stell | 203835 | SRS-2-R-866 | 6220-0-0545 | | | 1 |
| 884 studiowhite matt | 204474 | SRS-2-R-884 | 6220-0-0613 | | | 1 |
| 885 black matt | 204641 | SRS-2-R-885 | 6220-0-0630 | | | 1 |
| 896 chalet white | 204290 | SRS-2-R-896 | 6220-0-0596 | | | 1 |



## Rocker
### 2gang right, with “Dimmer” icon
As cover for ABB-free@home® sensor units and sensor/actuator units

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 188507 | SRD-2-R-212 | 6220-0-0261 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 188514 | SRD-2-R-214 | 6220-0-0262 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 188477 | SRD-2-R-81 | 6220-0-0258 | | | 1 |
| 82 ivory white | 203644 | SRD-2-R-82 | 6220-0-0526 | | | 1 |
| 83 aluminium silver | 188484 | SRD-2-R-83 | 6220-0-0259 | | | 1 |
| 84 studio white | 188491 | SRD-2-R-84 | 6220-0-0260 | | | 1 |
| 803 grey metallic | 203972 | SRD-2-R-803 | 6220-0-0560 | | | 1 |
| 815 yellow | 204122 | SRD-2-R-815 | 6220-0-0577 | | | 1 |
| 840 antique brass | 195727 | SRD-2-R-840 | 6220-0-0383 | | | 1 |
| 866 stainless stell | 203811 | SRD-2-R-866 | 6220-0-0543 | | | 1 |
| 884 studiowhite matt | 204450 | SRD-2-R-884 | 6220-0-0611 | | | 1 |
| 885 black matt | 204627 | SRD-2-R-885 | 6220-0-0628 | | | 1 |
| 896 chalet white | 204276 | SRD-2-R-896 | 6220-0-0594 | | | 1 |



## Cover plate
## For room thermostat.

As cover for ABB-free@home® room temperature controller RTC-F-1.

**Busch-Duro 2000® SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 212 white | 180914 | CP-RTC-212 | 6220-0-0210 | | | 1 |

**Reflex SI**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 214 alpine white | 181317 | CP-RTC-214 | 6220-0-0211 | | | 1 |

**future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®**

| Color | Bbn 4011395 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| 81 antracite | 181652 | CP-RTC-81 | 6220-0-0179 | | | 1 |
| 82 ivory white | 205693 | CP-RTC-82 | 6220-0-0529 | | | 1 |
| 83 aluminium silver | 182345 | CP-RTC-83 | 6220-0-0180 | | | 1 |
| 84 studio white | 181980 | CP-RTC-84 | 6220-0-0181 | | | 1 |
| 803 grey metallic | 205747 | CP-RTC-803 | 6220-0-0563 | | | 1 |
| 815 yellow | 205761 | CP-RTC-815 | 6220-0-0580 | | | 1 |
| 840 antique brass | 195734 | CP-RTC-840 | 6220-0-0384 | | | 1 |
| 866 stainless stell | 205723 | CP-RTC-866 | 6220-0-0546 | | | 1 |
| 884 studiowhite matt | 205815 | CP-RTC-884 | 6220-0-0614 | | | 1 |
| 885 black matt | 205839 | CP-RTC-885 | 6220-0-0631 | | | 1 |
| 896 chalet white | 205785 | CP-RTC-896 | 6220-0-0597 | | | 1 |



## Cover plate for 2 fold push buttons incl neutral symbols

Cover for ABB-free@home® 1/2 gang switches:
SSA-F-1.1.PB.1, SDA-F-1.1.PB.1, SBA-F-1.1.PB.1 and SU-F-1.0.PB.1
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| white | 113401 | SR-2-N2BL | 2CLA222620N1102 | | | 1 |
| anthracite | 113425 | SR-2-N2AN | 2CLA222620N1802 | | | 1 |
| silver | 113418 | SR-2-N2PL | 2CLA222620N1302 | | | 1 |
| champagne | 113906 | SR-2-N2CV | 2CLA222620N1902 | | | 1 |

Available with the following interchangeable icons (blind, light, dimmer, scene)

| | | | | | |
|---|---|---|---|---|---|
| | SBB-N2BL | 2CLA202620N1102 | | SBL-N2BL | 2CLA202610N1102 |
| | SBB-N2GR | 2CLA202620N1402 | | SBL-N2GR | 2CLA202610N1402 |
| | SBD-N2BL | 2CLA202640N1102 | | SBS-N2BL | 2CLA202630N1102 |
| | SBD-N2GR | 2CLA202640N1402 | | SBS-N2GR | 2CLA202630N1402 |



## Cover plate for 4 fold push buttons incl neutral symbols

Cover for ABB-free@home® 2/4 gang switches:
SSA-F-2.1.PB.1, SSA-F-2.2.PB.1, SDA-F-2.1.PB.1, SBA-F-2.1.PB.1 and SU-F-2.0.PB.1
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 EAN | Order details Type code | Order code | Price 1 piece | Weight 1 piece kg | Pack unit pc. |
|---|---|---|---|---|---|---|
| white | 113432 | SR-4-N2BL | 2CLA222640N1102 | | | 1 |
| anthracite | 113456 | SR-4-N2AN | 2CLA222640N1802 | | | 1 |
| silver | 113449 | SR-4-N2PL | 2CLA222640N1302 | | | 1 |
| champagne | 113913 | SR-4-N2CV | 2CLA222640N1902 | | | 1 |

Available with the following interchangeable icons (blind, light, dimmer, scene)

| | | | | | |
|---|---|---|---|---|---|
| | SBB-N2BL | 2CLA202620N1102 | | SBL-N2BL | 2CLA202610N1102 |
| | SBB-N2GR | 2CLA202620N1402 | | SBL-N2GR | 2CLA202610N1402 |
| | SBD-N2BL | 2CLA202640N1102 | | SBS-N2BL | 2CLA202630N1102 |
| | SBD-N2GR | 2CLA202640N1402 | | SBS-N2GR | 2CLA202630N1402 |

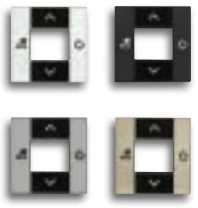
Color legend:
AN = anthracite, BL = white, PL = silver, CV = champagne, GR = grey
WG = Wengue wood, PZ = Stone slate, CB = White glass, CN = Black glass, OX = Aluminium (Inox AISI304)



## Cover plate for movement detector

Cover for ABB-free@home® movement detector: MSA-F-1.1.1 and MD-F-1.0.PB.1
Dimensions (H × W): 44 mm x 44 mm

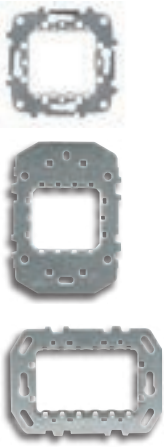
| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| white | 113463 | CP-MD-N2BL | 2CL0N224161ABB | | | 1 |
| anthracite | 113487 | CP-MD-N2AN | 2CL0N224168ABB | | | 1 |
| silver | 113470 | CP-MD-N2PL | 2CL0N224163ABB | | | 1 |
| champagne | 113920 | CP-MD-N2CV | 2CL0N224169ABB | | | 1 |



## Cover plate for room temperature controller

Cover for ABB-free@home® room temperature controller: RTC-F-1.PB
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| white | 113494 | CP-RTC-N2BL | 2CL0N224061ABB | | | 1 |
| anthracite | 113517 | CP-RTC-N2AN | 2CL0N224068ABB | | | 1 |
| silver | 113500 | CP-RTC-N2PL | 2CL0N224063ABB | | | 1 |
| champagne | 113937 | CP-RTC-N2CV | 2CL0N224069ABB | | | 1 |



## Metal mounting frame

Metal mounting frame for flush mounted units.
Dimensions (H × W): 102 mm x 74 mm, 74 mm x 102 mm

| | Bbn | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| square | | N2271.9 | 2CLA227190N1001 | | | 1 |
| vertical | | N2371.9 V | 2CLA237190N1002 | | | 1 |
| horizontal | | N2373.9 | 2CLA237390N1002 | | | 1 |



## Cover plate for 2 fold push buttons incl neutral symbols

Cover for ABB-free@home® 1/2 gang switches: SSA-F-1.1.PB.1, SDA-F-1.1.PB.1, SBA-F-1.1.PB.1 and SU-F-1.0.PB.1
Available in the following colors: anthracite
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| anthracite | 115849 | SR-2-AMAN | 2CLA622620N1801 | | | 1 |

Available with the following interchangeable icons (blind, light, dimmer, scene)

| | | | | | |
|---|---|---|---|---|---|
| | SBB-AMAN | 2CLA602620N1801 | | SBL-AMAN | 2CLA602610N1801 |
| | SBD-AMAN | 2CLA602640N1801 | | SBS-AMAN | 2CLA602630N1801 |



## Cover plate for 4 fold push buttons incl neutral symbols

Cover for ABB-free@home® 2/4 gang switches: SSA-F-2.1.PB.1, SSA-F-2.2.PB.1, SDA-F-2.1.PB.1, SBA-F-2.1.PB.1 and SU-F-2.0.PB.1
Available in the following colors: anthracite
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| anthracite | 115856 | SR-4-AMAN | 2CLA622640N1801 | | | 1 |

Available with the following interchangeable icons (blind, light, dimmer, scene)

| | | | | | |
|---|---|---|---|---|---|
| | SBB-AMAN | 2CLA602620N1801 | | SBL-AMAN | 2CLA602610N1801 |
| | SBD-AMAN | 2CLA602640N1801 | | SBS-AMAN | 2CLA602630N1801 |

Color legend:
AN = anthracite, BL = white, PL = silver, CV = champagne, GR = grey
WG = Wengue wood, PZ = Stone slate, CB = White glass, CN = Black glass, OX = Aluminium (Inox AISI304)



## Cover plate for movement detector

Cover for ABB-free@home® movement detector: MSA-F-1.1.1 and MD-F-1.0.PB.1
Available in the following colors: anthracite
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 115863 | CP-MD-AMAN | 2CLA624160N1801 | | | 1 |



## Cover plate for room temperature controller

Cover for ABB-free@home® room temperature controller: RTC-F-1.PB
Available in the following colors: anthracite
Dimensions (H × W): 44 mm x 44 mm

| | Bbn 8427238 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 115887 | CP-RTC-AMAN | 2CLA624060N1801 | | | 1 |



Color legend:
AN = anthracite, BL = white, PL = silver, CV = champagne, GR = grey
WG = Wengue wood, PZ = Stone slate, CB = White glass, CN = Black glass, OX = Aluminium (Inox AISI304)

# free@home
# Switches for Zenit and Millenium modules



### Switch/actuator, 1/2gang + 1 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.
Outputs: 1× normally open contact, potential free
Suitable for: resistive
Rated current: 10 A
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187357 | SSA-F-1.1.PB.1 | 6220-0-0232 | | | 1 |



### Switch/actuator, 2/4gang + 1 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.
Outputs: 1× normally open contact, potential free
Suitable for: resistive
Rated current: 10 A
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187364 | SSA-F-2.1.PB.1 | 6220-0-0267 | | | 1 |



## Switch/actuator, 2/4gang + 2 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.
Outputs: 2× normally open contact, potential free
Suitable for: resistive
Rated current: 10 A
Rated power: 2 x 1200 W
Suitable for: capacitive
Rated current: 10 AX
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187371 | SSA-F-2.2.PB.1 | 6220-0-0234 | | | 1 |



## Switch/dimmer, 1/2gang + 1 dimmer

For dimming 230 V~ loads. With integrated universal dimming actuator
for controlling different lamps. The dimming function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.
Outputs: 1× dimming channel
Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers
or electronic transformers
Rated power: 10–180 W/VA
Suitable for: LEDi and energy-saving bulbs
Rated power: 2–80 W/VA
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187388 | SDA-F-1.1.PB.1 | 6220-0-0235 | | | 1 |

# free@home
# Switches for Zenit and Millenium modules



### Switch/dimmer, 2/4gang + 1 dimmer

For dimming 230 V~ loads. With integrated universal dimming actuator for controlling different lamps. The dimming function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.
Outputs: 1× dimming channel
Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers
or electronic transformers
Rated power: 10–180 W/VA
Suitable for: LEDi and energy-saving bulbs
Rated power: 2–80 W/VA
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187395 | SDA-F-2.1.PB.1 | 6220-0-0236 | | | 1 |



### Switch/blind actuator, 1/2gang + 1 blind actuator

For controlling blind and awning motors. With integrated blind actuator. Blind function is available pre-configured. To be used in combination with ABB-free@home® Zenit cover plates for 2 fold push buttons.
Outputs: 1× Change-over contacts/normally open contact, potential bound
Rated power: 920 VA
Rated current: 4 A
Suitable for: Operating mode blind
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187401 | SBA-F-1.1.PB.1 | 6220-0-0237 | | | 1 |



## Switch/blind actuator, 2/4gang + 1 blind actuator

For controlling blind and awning motors. With integrated blind actuator. Blind function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.
Outputs: 1× Change-over contacts/normally open contact, potential-bound
Rated power: 920 VA
Rated current: 4 A
Suitable for: Operating mode blind
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187418 | SBA-F-2.1.PB.1 | 6220-0-0238 | | | 1 |



## Room temperature controller

Room temperature control function for controlling commercially available valve drives or analogue valve drives (continuous controllers) in connection with HA-M-0.6.1, HA-M-0.12.1, FCA-M-2.3.1. With display of set-value temperature.
To be used with ABB-free@home® Zenit cover plates for room temperature controller.
Display elements: LCD Display showing operation modes
Protection class of device: IP 20
Mounting depth: 17.9 mm
Dimensions (H × W × D): 44 mm x 44 mm x 29.4 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 188743 | RTC-F-1.PB | 6220-0-0276 | | | 1 |

# free@home
## Switches for Zenit and Millenium modules



### Switch 1/2gang

For sending switching, dimming and blind command to an ABB-free@home® actuator. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.
Control element: Switch contacts top/bottom
Display elements: LED for orientation or switch state display
Protection class of device: IP 20
Mounting depth: 14.1 mm
Dimensions (H × W × D): 44 mm x 44 mm x 23.5 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187258 | SU-F-1.0.PB.1 | 6220-0-0222 | | | 1 |



### Switch 2/4gang

For sending switching, dimming and blind command to an ABB-free@home® actuator. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.
Control element: Switch contacts top/bottom
Display elements: LED for orientation or switch state display
Protection class of device: IP 20
Mounting depth: 14.1 mm
Dimensions (H × W × D): 44 mm x 44 mm x 23.5 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187265 | SU-F-2.0.PB.1 | 6220-0-0223 | | | 1 |



## Movement detector

With select lens for detection with animal access. For automatic switching of ABB-free@home® actuators dependent on movement and brightness. To be used with ABB-free@home® Zenit cover plates for movement detector.
Detection range: frontal 6 m, lateral 3 m
Detection angle: 180°
Brightness limit value: 1 – 500 lux
Protection class of device: IP 20
Mounting depth: 14.1 mm
Dimensions (H × W × D): 44 mm x 44 mm x 29.6 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187326 | MD-F-1.0.PB.1 | 6220-0-0229 | | | 1 |



## Movement detector + 1 actuator

With select lens for detection with animal access. Including an integrated actuator for switching 230 V~ devices. To be used with ABB-free@home® Zenit cover plates for movement detector.
Outputs: 1 × normally open contact, potential free
Suitable for: resistive
Rated current: 10 A
Rated power: 2300 W
Suitable for: capacitive
Rated current: 10 AX
Detection range: frontal 6 m, lateral 3 m
Detection angle: 180°
Brightness limit value: 1 – 500 lux
Protection class of device: IP 20
Mounting depth: 31.5 mm
Dimensions (H × W × D): 44 mm x 44 mm x 47 mm

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187340 | MSA-F-1.1.PB.1 | 6220-0-0231 | | | 1 |



**System Access Point [1])**
**For ABB-free@home®**
For commissioning and remote control of the ABB-free@home® system.
Allows the execution of astro and time programs.
Commissioning and remote control is executed via the web interface or app.
No additional commissioning software is required.
Easy commissioning with WLAN ad-hoc mode.
Connection to the home network via WLAN client mode or via CAT cable.
The bus can be connected via enclosed terminal block.
Display elements: LED for status display.
Bus voltage: 24 V
Rated frequency: 50 Hz/60 Hz
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 110 mm x 170 mm x 31 mm

**Rated voltage: 230 V~**

| Color | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 84 studio white | 180327 | SAP-S-1-84 | 6220-0-0136 | | | 1 |

**Rated voltage: 127 V~**

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| 84 studio white | 187432 | SAP-S-127.1 | 6220-0-0240 | | | 1 |

1) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Power supply**
**For ABB-free@home®**
Power supply with integrated choke.
Fast diagnosis due to LED display for operational readiness and errors.
The bus can be connected via enclosed terminal block.
Display elements: Operational load/overload LED
Rated voltage: 127 - 230 V~, +10 % / -15 %
Secondary: 30 V, +2 V / --2 V
Rated frequency: 50 Hz/60 Hz
Outputs: 1
Rated current: 640 mA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm
Module width: 4 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941839 | PS-M-64.1.1 | 2CDG510001R0011 | | | 1 |



**Switch actuator, 4gang [1] [2]**
**For ABB-free@home®**
For switching 4 independent 127 V~/230 V~ loads.
Each contact has a manual operation function independent of auxiliary voltage for additionally displaying the contact setting.
The bus can be connected via enclosed terminal block.
Control element: Relay control element
Display elements: Relay control element
Bus voltage: 24 V
Outputs: 4
Suitable for: AC1
Rated current: 16 A, cos φ 0.8
Output voltage: 230 V~
Suitable for: AC3
Rated current: 8 A, cos φ 0.45
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm
Module width: 4 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 942089 | SA-M-0.4.1 | 2CDG510006R0011 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Heating actuator, 6gang [1] [2]**
**For ABB-free@home®**
For controlling thermoelectric actuating drives in heating/cooling systems.
The outputs are protected against short-circuit and overload.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Outputs: 6
Suitable for: ohmic
Rated current: 160 mA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm
Module width: 4 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941815 | HA-M-0.6.1 | 2CDG510008R0011 | | | 1 |



**I/O actuator, 8 gang**
**For ABB-free@home®**
Combination device with 8 binary inputs and 8 switch actuators.
Conventional push-buttons or auxiliary contacts can be connected to 8 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.
The contact polling voltage is made available by the device itself.
Maximum cable length at a cable cross-section of 1.5 mm² < 100 m
For switching 8 independent 230 V~ loads.
Bus voltage: 24 V
Inputs: 8
Polling voltage: 35 V-
Outputs: 8 Normally open contact, potential free
Suitable for: AC1
Rated current: 6 A, cos φ0.8
Output voltage: 230 V~
Suitable for: AC3
Rated current: 6 A, cos φ0.45
Output voltage: 230 V~
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 144 mm x 64.5 mm
Module width: 8 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 945561 | SA-M-8.8.1 | 2CDG510007R0011 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Heating actuator, 12gang [1] [2]**
**For ABB-free@home®**
For controlling thermoelectric actuating drives in heating/cooling systems.
The outputs are protected against short-circuit and overload.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Outputs: 12
Suitable for: ohmic
Rated current: 160 mA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm
Module width: 8 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941808 | HA-M-0.12.1 | 2CDG510009R0011 | | | 1 |



**Fan coil actuator, MDRC**
**For ABB-free@home®**
For controlling blower convectors.
Supports 2-pipe and 4-pipe system for heating and cooling.
The fan speed levels can be switched using a changeover or step switch function.
Three contacts for switching a three-stage fan.
Two contacts for activating the heating and cooling valves.
Supports 24V and 230V valves.
With two binary inputs for connecting dewpoint and condensation contacts.
The scanning voltage is provided by the device.
The bus connection is provided via the enclosed bus terminal.
Bus voltage: 24 V
Inputs: 2
Polling voltage: 10 V-
Outputs: 3 Normally open contact, potential free
Suitable for: AC3
Rated current: 6 A
Output voltage: 230 V~
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 108 mm x 64.5 mm
Module width: 6 MW

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180433 | FCA-M-2.3.1 | 6220-0-0027 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Blind actuator, 4gang [1] [2]**
**For ABB-free@home®**
For controlling 4 independent blind or roller shutter drives.
The outputs are inversely blocked.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Outputs: 4
Suitable for: AC3
Rated current: 6 A, cos φ 0.45
Output voltage: 230 V~
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm
Module width: 4 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941785 | BA-M-0.4.1 | 2CDG510011R0011 | | | 1 |



**Dimming actuator, 4gang [1] [2] [3]**
**For ABB-free@home®**
Multi-channel universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.
For dimmable Retrofit-LEDs (LEDi).
Increasing the max. load via channel bridging possible.
The outputs can be switched parallel in any combination.
Outputs automatically recognise the connected load.
In addition, the operating mode can be selected manually.
Status indication of the channels via LED.
The bus can be connected via enclosed terminal block.
Display elements: Outputs status indication via LED.
Bus voltage: 24 V
Rated voltage: 230 V~
Rated frequency: 50 Hz/60 Hz
Outputs: 4x dimming channel
Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.
Rated power: 10 - 315 W/VA
Suitable for: LEDi and energy-saving bulbs; typical
Rated power: 2 - 80 W/VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm
Module width: 8 MW

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 180358 | DA-M-0.4.2 | 6220-0-0395 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**Dimming actuator, 4gang [1] [2]**
**For ABB-free@home®**
Multi-channel universal dimming actuator for controlling LEDs, incandescent lamps, 127 V/230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lam
For dimmable Retrofit-LEDs (LEDi).
Increasing the max. load via channel bridging possible.
The outputs can be switched parallel in any combination.
Outputs automatically recognise the connected load.
In addition, the operating mode can be selected manually.
Status indication of the channels via LED.
The bus can be connected via enclosed terminal block.
Display elements: Outputs status indication via LED.
Bus voltage: 24 V
Rated voltage: 127 V~
Rated frequency: 50 Hz/60 Hz
Outputs: 4x dimming channel
Suitable for: 127 V/230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.
Rated power: 5 - 150 W/VA
Suitable for: LEDi and energy-saving bulbs; typical
Rated power: 2 - 40 W/VA
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm
Module width: 8 MW

| | Bbn 4011395 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 187425 | DA-M-0.4.127.2 | 6220-0-0723 | | | 1 |



**Binary input, 4gang [1] [2]**
**For ABB-free@home®**
The device detects AC/DC signals of 10 - 230 V via 4 channels. The information of the signal evaluation can be used for controlling ABB-free@home® actuators or for recording status information.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Inputs: 4
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 90 mm x 36 mm x 64 mm
Module width: 2 MW

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941778 | BI-M-4.0.1 | 2CDG510004R0011 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



**2gang binary input, flush-mounted [1] [2]**
**For ABB-free@home®**
Conventional push-buttons or auxiliary contacts can be connected to 2 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.
The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m.
Flush-mounted device for installation in a 60 mm device box or distribution box.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Inputs: 2
Polling voltage: 20 V-,
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 39 mm x 40 mm x 12 mm

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941679 | BI-F-2.0.1 | 2CDG510002R0011 | | | 1 |



**4gang binary input, flush-mounted [1] [2]**
**For ABB-free@home®**
Conventional push-buttons or auxiliary contacts can be connected to 4 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.
The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m.
Flush-mounted device for installation in a 60 mm device box or distribution box.
The bus can be connected via enclosed terminal block.
Bus voltage: 24 V
Inputs: 4
Polling voltage: 20 V-,
Protection class (Device): IP 20
Temperature range (Device): -5 °C to 45 °C
Dimensions: (L x W x D): 39 mm x 40 mm x 12 mm

| | Bbn 4016779 | Order details | | Price 1 piece | Weight 1 piece | Pack unit |
|---|---|---|---|---|---|---|
| | EAN | Type code | Order code | | kg | pc. |
| | 941884 | BI-F-4.0.1 | 2CDG510003R0011 | | | 1 |

1) Programming only with bus voltage applied via the web interface of the System Access Point.
2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

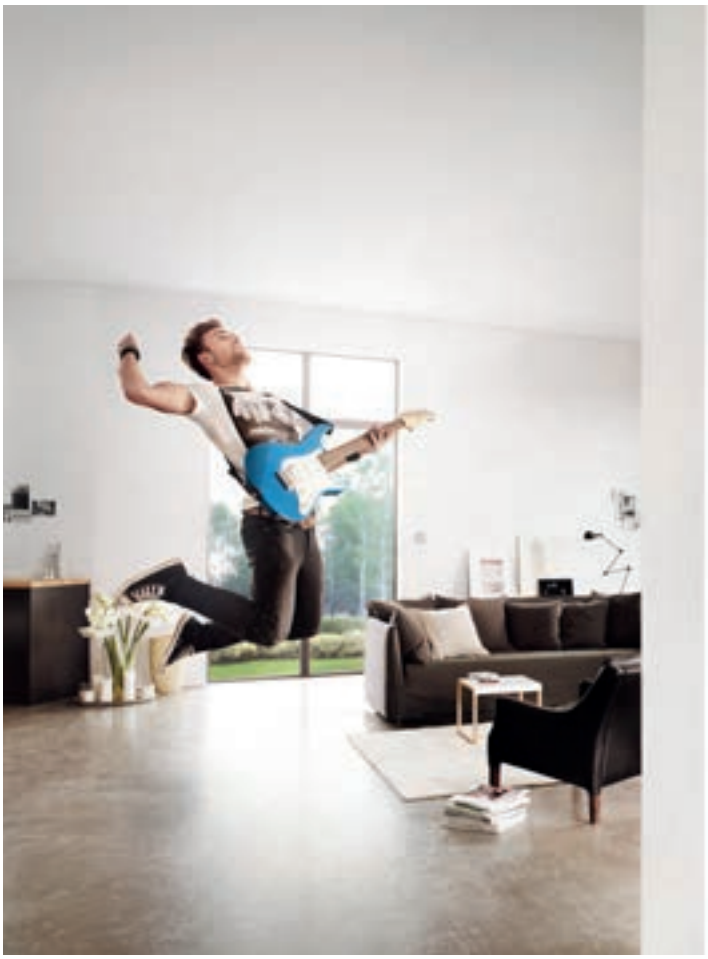


**Weather station**
**For ABB-free@home®**
For recording and transmitting of brightness, temperature, wind speed and rain.
Weather data can be linked with actuators to automatically control functions.
Weather data can be visualized in the free@home® web interface and the free@home app.
Wind speed measuring range 2 - 30 m/s
The bus can be connected via enclosed terminal block.
Rated voltage: 110 V~ - 230 V~
Rated frequency: 50 Hz - 60 Hz
Bus voltage: 24 V-
Inputs: 4
Protection class (Device): IP 44
Temperature range (Device): -20 °C to 55 °C
Temperature range (Sensor):
Brightness limit value: 1 Lux - 100000 Lux
Dimensions: (L x W x D): 108 mm x 121 mm x 227 mm

| | Bbn 4011395<br>EAN | Order details<br>Type code | <br>Order code | Price 1 piece | Weight 1 piece<br>kg | Pack unit<br>pc. |
|---|---|---|---|---|---|---|
| | 205525 | WS-1 | 6220-0-0390 | | | 1 |

# free@home

## Communicative and competent - The ABB partner close to you





Advice and assistance close to you. Your electrician will be happy to explain to you in detail the advantages of ABB-free@home® in a face-to-face discussion. This will allow home automation to be planned to suit your individual requirements.



**The suitable electrician**

The electrician familiar with ABB-free@home® can be found at www.abb.com/freeathome. Simply enter your postcode – and the firms in your region will be displayed.

**Now scan the QR code to find out more about the advantages of ABB-free@home®.**

# Solutions for electrical distribution in buildings
## Door entry system

**Index**


Welcome - Single-family home kit 13/6
Welcome - Outdoor stations 13/8
Welcome - Indoor stations 13/22
Welcome - System devices 13/29

# Door entry system
## Simple but impressive

Thanks to its intuitive design, using the Welcome indoor station is as easy as saying, “hello.” Even without prior experience, residents will instantly understand the easily recognized symbols and functions at a glance.

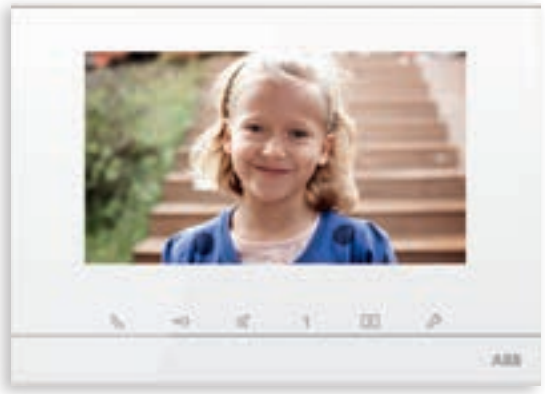


ABB-Welcome is designed with a beautiful modern style, and an elegant look. It is more than just a robust door entry system; ABB-Welcome also helps you to create an atmosphere of comfort, harmony and style in your home.

**Communication**
For receiving and ending calls.

**Door opener**
Open the electric door lock.

**Mute function**
Switch off the microphone of the indoor station during a conversation, and prevent the visitor at the front door from listening in. It can also be used to switch off the bell. The bell switches back on automatically after 10 hours.

1

**Programmable button**
For customized function, e.g. intercom, second lock control, relay actuator control for light switch or additional lock, etc.

**Snapshot**
For instantly taking a photo of visitors at the front door during communication.

**Settings**
For individually configuring the device.

Installation is as easy as 1-2-3. The screwless, snap-in design is used on both the outdoor and indoor stations. This makes installation an easy, quick and enjoyable process for both surface- and flush-mounted versions.





ABB-Welcome is the perfect compliment to your home. And, simple installation makes it easy for ABB-Welcome to become part of your life.

# Door entry system
## Overview

### ABB-Welcome outdoor station- stainless steel



01



02



03



04



05



06

01 ABB-Welcome outdoor station, one button with/without NFC/IC

02 ABB-Welcome outdoor station, two buttons with/without NFC/IC

03 ABB-Welcome outdoor station, three buttons with/without NFC/IC

04 ABB-Welcome outdoor station, four buttons with/without NFC/IC

05 ABB-Welcome outdoor station, six buttons with/without NFC/IC

06 ABB-Welcome outdoor station, Keypad with display

### ABB-Welcome outdoor station- aluminum



01



02



03



04



05



06



07



08

01 ABB-Welcome outdoor station cover frame, 1 module, Dimensions: 128 x 125 x 19 mm

02 ABB-Welcome outdoor station cover frame, 3 modules, Dimensions: 274 x 125 x 19 mm

03 ABB-Welcome outdoor station cover frame, 6 modules, Dimensions: 274 x 230 x 19 mm

04 ABB-Welcome outdoor station cover frame, 2 modules, Dimensions: 201 x 125 x 19 mm

05 ABB-Welcome outdoor station cover frame, 4 modules, Dimensions: 347 x 125 x 19 mm

06 ABB-Welcome outdoor station cover frame, 8 modules, Dimensions: 347 x 230 x 19 mm

07 ABB-Welcome basic outdoor station,one button

08 ABB-Welcome basic outdoor station, two buttons



## ABB-Welcome indoor station



01



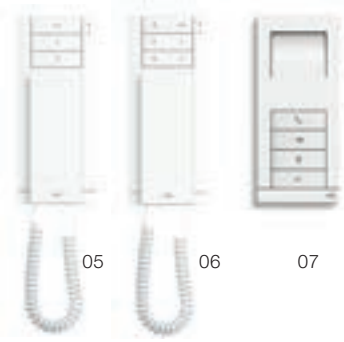
02



03



04



05 06 07

01 ABB-Welcome video indoor station, 7-inch hands-free

02 ABB-Welcome video indoor station, 4.3-inch hands-free

03 ABB-Welcome video indoor station, 4.3-inch handset

04 ABB-Welcome video indoor station, basic 4.3-inch hands-free

05 ABB-Welcome audio indoor station, handset, three buttons

06 ABB-Welcome audio indoor station, six buttons

07 ABB-Welcome audio indoor station, hands-free

## ABB-Welcome system devices



01



02



03



04



05



06



07



08



09



10



11



12

01 ABB-Welcome telephone gateway

02 ABB-Welcome IP gateway

03 ABB-Welcome gateway

04 ABB-Welcome outdoor video distributor

05 ABB-Welcome mini system controller

06 ABB-Welcome system controller

07 ABB-Welcome lift control module

08 ABB-Welcome M adaptor

09 ABB-Welcome video distributor

10 ABB-Welcome switch actuator

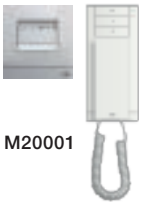
11 ABB-Welcome camera interface

12 ABB-Welcome guard unit

# Door entry system
## Welcome - Single-family home kit




Dimensions: 315 x 184 x 295 mm



M20001



M20003

### Audio kit

| Article No. | Description |
|---|---|
| M20001 | Audio single-family home kit<br>– Audio outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/1<br>– Mini system controller<br>– Audio handset indoor station, 3 buttons, white |
| M20003 | Audio single-family home kit, with induction loop<br>– Audio outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/1<br>– Mini system controller<br>– Audio handset indoor station with induction loop, 3 buttons, white |



M20311



M20313



M20321



M20323



M20701




M20702



M20361



M20363



M20351

## Video kit

| Article No. | Description |
|---|---|
| M20311 | Video single-family home kit, 4.3'' color video handset indoor station<br>– Video outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/2<br>– Mini system controller<br>– 4.3" color video handset indoor station, white |
| M20313 | Video single-family home kit, 4.3'' color video handset indoor station, with induction loop<br>– Video outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/2<br>– Mini system controller<br>– 4.3" color video handset indoor station with induction loop, white |
| M20321 | Video single-family home kit, 4.3'' color video hands-free indoor station<br>– Video outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/2<br>– Mini system controller<br>– 4.3" video hands-free indoor station, white |
| M20323 | Video single-family home kit, 4.3'' color video hands-free indoor station, with induction loop<br>– Video outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/2<br>– Mini system controller<br>– 4.3" video hands-free indoor station, induction loop, white |
| M20701 | Video 1 family kit, 7" handsfree<br>– Video outdoor station, 1/2 pushbuttons, aluminum<br>– Flush-mounted box, size 1/2<br>– Min-system controller<br>– 7" video hands-free indoor station, white |
| M20702 | Video single-family home kit, 7'' color video hands-free indoor station<br>– Video outdoor station, 1 button, stainless steel<br>– Flush mounted box, size 1/3<br>– System controller<br>– 7" video hands-free indoor station, white<br>– IP-Gateway |
| M20361 | Mini OS kit<br>– Mini video outdoor station, 1 pushbutton<br>– Basic 4.3" video hands-free indoor station<br>– Mini system controller |
| M20363 | Mini OS kit, with ID function<br>– Mini video outdoor station, 1 pushbutton, with ID card reader<br>– Basic 4.3" video hands-free indoor station, with induction loop<br>– Mini system controller |
| M20351 | Video single-family home kit without indoor station<br>– Video outdoor station, 1/2 push button, aluminum<br>– Flush mounted box, size 1/2<br>– Mini system controller<br>– IP-Gateway<br>( Indoor station is not included in the kit, but all indoor stations range can be selected. ) |

# Door entry system
# Welcome - Outdoor stations

## Outdoor station-stainless steel



### Audio outdoor station, stainless steel

- Clean design with brushed stainless steel.
- Surface mounting, flush mounting and cavity wall set
- Different mode setting is possible for pushbutton, such as light switch and calling guard
- Weatherproof: IP54, IK07
- Product dimensions: size 1/2: 200 x 125 x 39 mm.  size 1/3: 274 x 125 x 39 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21011P1-S | | Audio outdoor station, 1 pushbutton, stainless steel | 1/19 |
| M21013N3-S | | Audio outdoor station, without pushbuttons, size 1/2, stainless steel | 1/19 |
| M21013N6-S | | Audio outdoor station, without pushbuttons, size 1/3, stainless steel | 1/12 |



### Video outdoor station,1 button and 2 button optional

- Clean design with brushed stainless steel
- Surface mounting, flush mounting and cavity wall set
- Different mode setting is possible for pushbutton, such as light switch and calling guard
- Weatherproof: IP54, IK07
- Product dimensions: size 1/3: 274 x 125 x 41 mm. size 1/4: 347 x 125 x 41 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21321P1-S | | Video outdoor station, 1 pushbutton, Stainless steel | 1/12 |
| M21322P1-S | | Video outdoor station, 1 pushbutton, stainless steel, with NFC/IC function | 1/12 |
| M21323N3-S | | Video outdoor station, without pushbuttons, size 1/3, stainless steel | 1/12 |
| M21323N6-S | | Video outdoor station, without pushbuttons, size 1/4, stainless steel | 1/12 |



### Video keypad outdoor station with speech synthesis

- Clean design with brushed stainless steel
- Built-in card reader in display module, support ID card (M21351K-A) and ID card (M21352K-A)
- Surface mounting (41021F and 51021RH needed), flush mounting (41021F needed) and cavity wall set (51021CS needed)
- Weatherproof: IP54, IK07
- Product dimensions: 347 x 125 x 41 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21321K-S | | Video outdoor station with keypad, ID,stainless steel | 1/12 |
| M21322K-S | | Video outdoor station with keypad, IC,stainless steel | 1/12 |

## Outdoor station-aluminium



### Mini outdoor station,one button / two buttons

- Compact size, surface mounted
- 1 button and 2 button optional, built-in ID card reader
- Clean design with integrated status display
- Light switch or calling guard programmable for the 2nd button
- Up to 2 locks connections
- Product dimensions: 99 x 168 x 26 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21312P1-A | | Mini video outdoor station, 1 pushbutton, with ID card reader | |
| M21312P2-A | | Mini video outdoor station, 2 pushbuttons, with ID card reader | |
| M21311P1-A | | Mini video outdoor station, 1 pushbutton | |
| M21311P2-A | | Mini video outdoor station, 2 pushbuttons | |



### Audio outdoor station, 1-row pushbutton for 1/2 calls

- The assembled product includes audio module with 1/2 pushbutton (M251022A-A) and 1-module cover frame (51021CF-A)
- Dustproof and waterproof as IP54, and vandal proof as IK07
- Different mode setting is possible for pushbutton, such as 1 call or 2 calls in one row
- Surface mounting (41021F and 51021RH needed ) and flush mounting (41021F needed)
- The related tool is also provided in the package
- Product dimension: 128 x 125 x 40 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21021P1-A | | Audio outdoor station, 1/2 pushbutton, aluminum | 1/19 |



### Video outdoor station, 1-row pushbutton for 1/2 calls

- The assembled product includes camera module (M251021C), audio module with 1/2 push button (M251022A-A) and 2-module cover frame (51022CF-A).
- Dustproof and waterproof as IP54, and vandal proof as IK07.
- Different mode setting is possible for pushbutton, such as 1 call or 2 calls in one row.
- Surface mounting (41022F and 51022RH needed) and flush mounting (41022F needed).
- The related tool is also provided in the package.
- Product dimensions: 201 x 125 x 43 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21351P1-A | | Video outdoor station, 1/2 pushbutton, aluminum | 1/19 |



### Video keypad outdoor station with speech synthesis

- The assembled product includes camera module (M251021C), audio module with speech synthesis (M251024A-A), keypad module (M251021K-A) and display module (M251021CR/ M251022CR).
- Dustproof and waterproof as IP54, and vandal proof as IK07.
- Built-in card reader in display module, support ID card (M21351K-A) and IC card (M21352K-A).
- Surface mounting (41024F and 51024RH needed) and flush mounting (41024F needed).
- Product dimensions: 345 x 125 x 50 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M21351K-A | | Video outdoor station with keypad, with ID card reader | 1/12 |
| M21352K-A | | Video outdoor station with keypad, with IC card reader | 1/12 |

# Door entry system
# Welcome - Outdoor stations

## Module



### Camera module

- Video color camera with large detection angle (H 86°, V 67°, D 104° ) and manually mechanical adjustment (H ± 15°,V ± 15°), built-in infrared lighting ensures clear picture and comfortable to eyes at night and hidden surveillance from video indoor station.
- Anti-fog design with built-in heater ensures clear image even in wet conditions.
- Optional to connect one additional analog camera for surveillance inside the video indoor station.
- Product dimensions: 72 x 97 x 41 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021C | | Camera module | 1/12/12 |



(Only for Aluminum)

### Audio module, no button

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- No button.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021A-A | | Audio module, aluminum | 1/12/12 |
| M251021A-W | | Audio module, coated white | 1/12/12 |



(Only for Aluminum)

### Audio module, 1-row pushbutton for 1/2 calls

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- 1-row button.
- Different mode setting is possible such as 1 call or 2 calls in one row, call guard or switching light for the first or second button.
- Integrated optic sensor for day / night mode.
- Product dimension: 72 x 97 x 38 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251022A-A | | Audio module, 1 row pushbutton, aluminum | 1/12/12 |
| M251022A-W | | Audio module, 1 row pushbutton, coated white | 1/12/12 |



(Only for Aluminum)

### Audio module, 2-row pushbutton for 2/4 calls

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- 2-row button.
- Different mode setting is possible such as 1 call or 2 calls in one row, call guard or switching light for the first or second button.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251023A-A | | Audio module, 2 rows pushbuttons, aluminum | 1/12/12 |
| M251023A-W | | Audio module, 2 rows pushbuttons, coated white | 1/12/12 |



(Only for Aluminum)

### Audio module, no button, with speech synthesis

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible, door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- No button, with speech synthesis to play voice message according to the status.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251024A-A | | Audio module with speech synthesis, aluminum | 1/12/12 |
| M251024A-W | | Audio module with speech synthesis, coated white | 1/12/12 |



### Pushbuttons module, 3-row for 3/6 calls

- Nameplate is extractable by tool, without the need to disassemble the panel.
- Backlight ensures clear visibility at night.
- 3-rows can be set for 3/6 calls.
- Either 1 or 2 calls for 1 row of buttons are set in the audio module.
- Product dimensions: 72 x 97 x 25 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021P3 | | 3/6 pushbutton module | 1/10/8 |

* Accessory 51021P3 1/3 height cover for 3/6 pushbutton module



### Pushbuttons module, 4-row for 4/8 calls

- Nameplate is extractable by tool, without the need to disassemble the panel.
- Backlight ensures clear visibility at night.
- 4-rows can be set for 4/8 calls.
- Either 1 or 2 calls for 1 row of button are set in the audio module.
- Product dimensions: 72 x 97 x 25 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021P4 | | 4/8 pushbutton module | 1/10/8 |

* Accessory 51021P4 1/4 height cover for 4/8 pushbutton module and audio module with button

# Door entry system
## Welcome - Outdoor stations



**Keypad module, letters A-Z**

- Inputting device for keypad outdoor station.
- Letters from A-Z.
- Scroll up and down for residents‘ names or input letters of the calling name (display module must be accompanied, sorting is progressive upon inputting next letter of name).
- Names or call code can be downloaded from PC though USB cable or can be edited from the keyboard.
- Up to 3,000 names can be saved in the memory.
- Both public password and up to 6, 000 customized passwords are allowed.
- If wrong password is repeatly entered, the keypad will be locked.
- Password available with 3-8 digits and calling code with 1-6 digits.
- Call guard unit is also available.
- Backlight ensures clear visibilty at night.
- Product dimensions: 72 x 97 x 31 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021K-A | | Keypad module, letters A-Z, aluminum | 1/10/8 |
| M251021K-W | | Keypad module, letters A-Z, white | 1/10/8 |
| M251021K-S | | Keypad module, letters A-Z, stainless steel finish | 1/10/8 |



**Keypad module, letters A-L**

- Inputting device for keypad outdoor station.
- Letters from A-L.
- Scroll up and down for residents‘ names or input letters of the calling name (display module must be accompanied, sorting is progressive upon inputting next letter of name).
- Calls can also be made by combining number and letter, e.g. 112A.
- Names or call code can be downloaded from PC through USB cable or can be edited from the keyboard.
- Up to 3, 000 names can be saved in the memory.
- Both public password and up to 6, 000 customized passwords are allowed.
- If wrong password is repeatly entered, the keypad will be locked.
- Password available with 3-8 digits and calling code with 1-6 digits.
- Call guard unit is also available.
- Backlight ensures clear visibility at night.
- Product dimensions: 72 x 97 x 31 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251022K-A | | Keypad module, letters A-L , aluminum | 1/10/8 |
| M251022K-W | | Keypad module, letters A-L , white | 1/10/8 |



### Display module with card reader

- Large screen ensures customized message, code, and legible names.
- Withstands temperatures to -40 °C.
- Wiegand output is available to connect to the third party controller.
- ID card reader (accept the card with frequency of 125KHz) or ID card reader (accept the card with frequency of 13.56MHz) is integrated into the module.
- Up to 3, 000 different cards can be registered.
- Register and delete cards locally in setting menu.
- Includes different feedback sounds for accepting or rejecting the card reader.
- Supports connection to audio module without the keypad module.
- Product dimensions: 72 x 97 x 31 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M251021CR | | Display module with ID card reader | 1/10/8 |
| M251022CR | | Display module with IC card reader | 1/10/8 |



### Nameplate module

- Can be used to hold the address of the building or the resident directory for keypad outdoor station, or simply to fill the module within the cover frame.
- Backlight ensures clear visibility at night.
- Product dimensions: 72 x 97 x 24 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021DN | | Directory nameplate module | 1/10/8 |



### Push button module, one round button

- 1 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station.
- Supporting software ensures high quality nameplate printing.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51011P1 | | Pushbutton module, 1 pushbutton | 1/10/8 |
| 51012P1 | | Pushbutton module with NFC/IC function, 1 pushbutton | 1/10/8 |



### Push button module, two round pushbuttons

- 2 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station ranges.
- Supporting software ensures high quality nameplate printing.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51011P2 | | Pushbutton module, 2 pushbuttons | 1/10/8 |
| 51012P2 | | Pushbutton module with NFC/IC function, 2 pushbuttons | 1/10/8 |

# Door entry system
## Welcome - Outdoor stations



### Push button module, three round pushbuttons

- 3 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station.
- Supporting software ensures high quality nameplate printing.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51011P3 | | Pushbutton module, 3 pushbuttons | 1/10/8 |
| 51012P3 | | Pushbutton module with NFC/IC function, 3 pushbuttons | 1/10/8 |



### Extension unit

Extends the built-in audio module assembly by a further 12 binary inputs.
For the integration into letter boxes and bell systems of different manufacturers.
With interface for the connection of additional built-in keypad extensions.
The built-in audio module can be extended to a maximum of 99 inputs for doorbell push-switches with the aid of
the built-in keypad extension.
Product dimensions: 68 mm x 50 mm x 24 mm

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83111-500 | | Extension unit | 1/18 |



### Camera module

For the integration into letter boxes and bell systems of different manufacturers.
The cutout must be created by the manufacturer.
Extended audio module assembly with video function.
Video camera with automatic day/night switchover and infrared LEDs to illuminate the night shots.
Installed heating to keep the lens free of condensation.
Vertical/horizontal detection angle: 86°/67°
Setting angle horizontal/vertical: +/-15°, mechanically adjustable
Product dimensions: 62mm x 98 mm x 35mm

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83501-101-500 | | Camera module | 1/12/12 |



### Audio integration unit

For the integration into letter boxes and bell systems of different manufacturers.
Makes audio communication possible.
Built-in relay for operating the door opener.
8 inputs for connecting the doorbell push-switches.
Adjustable volume.
With interface for the connection of built-in keypad extensions.
With interface for the connection of the camera module.
Product dimensions: 68 mm x 126 mm x 31 mm

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83110-500 | | Audio integration unit | 1/18 |



### Label holder for round pushbutton module

- Label holder for the round pushbutton module, with stamped labelling
- Contains one support frame and two extension support frames.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83161-500 | | Label holder for round pushbutton | 1/18 |

## Accessories



### Cover frame, size 1/1

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 1/1, 128 x 125 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021CF-A | | Cover frame, 1-module, size 1/1, aluminum | 1/34 |
| 51021CF-W | | Cover frame, 1-module, size 1/1, coated white | 1/34 |



### Cover frame, size 1/2

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 1/2, 201 x 125 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51022CF-A | | Cover frame, 2-module, size 1/2, aluminum | 1/34 |
| 51022CF-W | | Cover frame, 2-module, size 1/2, coated white | 1/34 |



### Cover frame, size 1/3

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 1/3, 274 x 125 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51023CF-A | | Cover frame, 3-module, size 1/3, aluminum | 1/22 |
| 51023CF-W | | Cover frame, 3-module, size 1/3, coated white | 1/22 |



### Cover frame, size 1/4

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 1/4, 347 x 125 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51024CF-A | | Cover frame, 4-module, size 1/4, aluminum | 1/22 |
| 51024CF-W | | Cover frame, 4-module, size 1/4, coated white | 1/22 |



### Cover frame, size 1/5

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 1/5, 420 x 125 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51028CF-A | | Cover frame, 5-module, size 1/5, aluminum | 1/22 |



### Cover frame, size 2/3

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismount the end strip is also included in the package.
- Size 2/3, 274 x 230 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51025CF-W | | Cover frame, 6-module, size 2/3, aluminum | 1/11 |
| 51025CF-W | | Cover frame, 6-module, size 2/3, coated white | 1/11 |

# Door entry system
## Welcome - Outdoor stations



### Cover frame, size 2/4

- The invisible screw design with provision of double columns ensures a pleasing appearance.
- The tool to dismount the end strip is also included in the package.
- Size 2/3, 347 x 230 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51026CF-A | | Cover frame, 8-module, size 2/4, aluminum | 1/11 |
| 51026CF-W | | Cover frame, 8-module, size 2/4, coated white | 1/11 |



### Cover frame, size 2/5

- The invisible screw design with provision of double columns ensures a pleasing appearance.
- The tool to dismount the end strip is also included in the package.
- Size 2/5, 420 x 230 x 19 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51029CF-A | | Cover frame, 10-module, size 2/5, aluminum | 1/11 |



### End strip

- End strip for outdoor station cover frame.
- 2 types available, one for 4.9“ wide outdoor station (size 1/X, 125 x 19 x 15 mm), the other for 9“ wide outdoor station (size 2/X, 230 x 19 x 15 mm).

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021EP-A | | End strip, size 1/x, aluminum | 1/36 |
| 51022EP-A | | End strip, size 2/x, aluminum | 1/20 |
| 51021EP-W | | End strip, size 1/x, white | 1/36 |
| 51022EP-W | | End strip, size 2/x, white | 1/20 |



### Flush mounted box, size 1/1

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/1, 126 x 124 x 46 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41021F | | Flush-mounted box, 1-module, size 1/1 | 1/19 |





### Flush mounted box, size 1/2

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/2, 199 x 124 x 46 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41022F | | Flush-mounted box, 2-module, size 1/2 | 1/19 |



### Flush mounted box, size 1/3

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/3, 272 x 124 x 46 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41023F | | Flush-mounted box, 3-module, size 1/3 | 1/12 |



### Flush mounted box, size 1/4

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/4, 345 x 124 x 46 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41024F | | Flush-mounted box, 4-module, size 1/4 | 1/12 |



### Flush mounted box, size 1/5

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/5, 418 x 124 x 46 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41028F | | Flush-mounted box, 5-module, size 1/5 | 1/6 |



### Flush mounted box, size 2/3

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/3, 272 x 228 x 47 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41025F | | Flush-mounted box, 6-module, size 2/3 | 1/6 |



### Flush mounted box, size 2/4

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/4, 345 x 228 x 47 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41026F | | Flush-mounted box, 8-module, size 2/4 | 1/6 |



### Flush mounted box, size 2/5

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/5, 418 x 228 x 47 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 41029F | | Flush-mounted box, 10-module, size 2/5 | 1/6 |



### Joining fixture

- It is used when more than one flush mounted box (size 1/4, 41024F) needs to be connected together.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021J | | Joining fixture for multi- flush mounted boxes connection | |

# Door entry system
## Welcome - Outdoor stations



### Cavity wall set
- For cavity/hallow wall mounting of the flush-mounted wall boxes.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021CS | | Cavity wall set for outdoor station and 4.3" video handsfree | 1/18 |



### Rain hood, size 1/1
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/1, 128 x 131 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021RH | | Rain hood, 1-module, size 1/1 | 1/14 |



### Rain hood, size 1/2
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/2, 201 x 131 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51022RH | | Rain hood, 2-module, size 1/2 | 1/14 |



### Rain hood, size 1/3
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/3, 274 x 131 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51023RH | | Rain hood, 3-module, size 1/3 | 1/8 |



### Rain hood, size 1/4
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/4, 347 x 131 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51024RH | | Rain hood, 4-module, size 1/4 | 1/8 |



### Rain hood, size 1/5
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/5, 420 x 131 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51028RH | | Rain hood, 5-module, size 1/5 | 1/8 |



### Rain hood, size 2/3
- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/3, 274 x 237 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51025RH | | Rain hood, 6-module, size 2/3 | 1/4 |



### Rain hood, size 2/4

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/4, 347 x 237 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51026RH | | Rain hood, 8-module, size 2/4 | 1/4 |



### Rain hood, size 3/4

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 3/4, 347 x 378 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51027RH | | Rain hood, 12-module, size 3/4 | 1/2 |



### Rain hood, size 2/5

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/5, 420 x 237 x 70 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51029RH | | Rain hood, 10-module, size 2/5 | 1/4 |



### Labelling sheet, A4

- Quality labelling sheet for nameplate.
- Easy to be printed and cut.
- Waterproof.
- Size 2/5, 210 x 297 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021L | | Labelling sheet for nameplate, A4 | |
| 51022L | | Labelling sheet for 1/3 height, A4 | |
| 51023L | | Labelling sheet for 1/4 height, A4 | |
| 51024L | | Labelling sheet for round pushbutton module, A4 | |



### ID card

- 125 KHz.
- ISO18000-2.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021F-L | | Proximity key fob, ID card | |
| 51021B | | Proximity badge, ID card | |



### IC card

- 13.56 MHz.
- ISO14443A.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51022F-Y | | Proximity key fob, IC card, yellow | |
| 51022F-R | | Proximity key fob, IC card, red | |
| 51022F-L | | Proximity key fob, IC card, blue | |



**Mounting tool**

- Spare part for the outdoor station,stainless steel

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51022MT | | Mounting tool, stainless steel | |

## Quick composition guide for modular pushbutton outdoor station

(3-row or 4-row pushbutton)

Welcome provides a wide range of outdoor stations with pushbuttons by the combination of the modules, covers and boxes.

For pushbutton outdoor stations, it multiples the application by setting as one column or double column for the same pushbutton module. The setting is made by the audio modules. We refer to the pushbutton status as "single row" or "double row."
3-row and 4-row pushbutton are optional for application.

To compose a pushbutton outdoor station, audio module (with no pushbutton, with 1-row or 2-row pushbutton), pushbutton module (3-row or 4-row pushbutton), cover frame and flush mounted boxes are compulsory. If surface mounting is required, a rain hood is needed.

There is a quick composition table for pushbutton outdoor station on pages 10-11. Please follow the guide below and refer to the table to choose the items needed for the desired pushbutton outdoor station.

**Step 1:**
**Audio or video?**
Please refer to page 10 for audio pushbutton outdoor station and page 11 for video pushbutton outdoor station.

**Step 2:**
**3-row or 4-row pushbutton?**
Please refer to the 3-row or 4-row pushbutton table for different pushbutton applications.

* It is technically possible but not aesthetically pleasing to combine audio module with pushbutton and 3-row pushbutton module. For better appearance as an outdoor station, the composition of pushbuttons follows the rule that every pushbutton should have the same height. Thus, if 3-row pushbutton module is used, audio module with pushbutton and 4-row pushbutton module are not recommended.

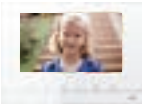
**Step 3:**
**How many calls are needed?**
Please decide whether single row or double row pushbutton is needed, then please turn to the button ranges to quickly locate the possible composition.

* In case the light and call guard functions are required for the outdoor station, then the total buttons should be the combination of the apartment no. and button number for the extra functions.
** If it's not certain whether single or double pushbuttons for one row is optimal, it is possible to turn to the pushbutton range to see all the possibilities.

**Step 4:**
**Choose the right composition by balancing cost and aesthetics**

* There may be more than one possibility of combining outdoor stations by choosing 3-row module or 4-row pushbutton module, choosing a nameplate module or not and setting as single row or double row for the same pushbutton module. It is advisable to consider both cost and aesthetics when making this decision.

# Door entry system
## Welcome - Indoor stations





**7“ all touch video hands-free indoor station**

- Large 17.8 cm (7“) color display with intuitive touch control.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- During resident‘s absence, voice message of the resident will be played automatically in case of door calls, and three photos of the visitor will be automatically stored.
- The number of pictures that can be stored is decided by the capacity of the SD card (not provided).
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station,door bell, intercom or guard unit.
- Send SOS alarm to guard unit in emergency.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 155 x 218 x 29 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22331-W | | 7“ hands-free video indoor station, white | 1/16 |
| M22331-B | | 7" hands-free video indoor station, black | 1/16 |



**4.3“ video hands-free indoor station**

- 4.3“ color display with on screen display.
- 6 touch film buttons for communication unlocking, mute, programmble button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in the picture memory for door calls during resident‘s absence.
- Holds up-to 50 photos
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Broadcast by simply holding and pressing the communication button.
- Surface mounting, flush mounting (flush mounted box 42311F is needed) and desktop mounting (desktop bracket 42311D is needed), and cavity wall set (51021CS needed)
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 137 x 155 x 24 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22311-W | | 4.3“ video hands-free indoor station, white | 1/28 |
| M22311-B | | 4.3" video hands-free indoor station, black | 1/28 |



**4.3“ video hands-free indoor station with induction loop**

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Functionable for users with hearing aids.
- 4.3“ color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident‘s absence.
- Holds up to 50 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Broadcast by simply pressing and holding the communication button.
- Surface mounting, flush mounting (flush mounted box 42311F is needed), desktop mounting (desktop bracket 42311D is needed) and cavity wall set (51021CS needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 137 x 155 x 24 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22313-W | | 4.3" hands-free video indoor station, induction loop, white | 1/28 |



**4.3“ video handset indoor station, color display**

- Slim indoor station with handset (depth of 45 inches).
- 4.3“ color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident‘s absence.
- Holds up to 25 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 144 x 198 x 45 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22302-W | | 4.3" handset color video indoor station, white | 1/15 |

# Door entry system
## Welcome - Indoor stations



**4.3“ video handset indoor station, color display with induction loop**

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Function for users with hearing aids.
- Slim indoor station with handset (depth of 45 inches).
- 4.3“ color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in the memory for door calls during resident‘s absence.
- Holds up to 25 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 144 x 198 x 45 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22303-W | | 4.3" handset color video indoor station with induction loop, white | 1/ 15 |



**Basic 4.3“ video hands-free indoor station**

- 4.3“ color display with on screen display.
- 6 touch film buttons for communication unlocking, mute, programmble button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- Holds up to 50 photos
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, doorbell, intercom or guard unit. The ringtone can be fixed or cycled
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- Product dimensions: 154 x 134 x 23 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22341-W | | Basic 4.3" video hands-free indoor station, white | 1/24 |





**Basic 4.3“ video hands-free indoor station, with induction loop**

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Functionable for users with hearing aids.
- 4.3“ color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident‘s absence.
- Holds up to 50 photos.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, doorbell, intercom or guard unit. The ringtone can be fixed or cycled
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- Product dimensions: 154 x 134 x 23 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22343-W | | Basic 4.3" video hands-free indoor station, with induction loop, white | 1/24 |



### Audio handset indoor station, 3 buttons

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g.intercom, door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Surface mounted.
- Product dimensions: 198 x 81 x 43 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22002-W | | Audio handset indoor station, 3 buttons, white | 1/25 |



### Audio handset indoor station, 3 buttons with induction loop

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g. intercom door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Electromagnetic signals will be emitted by a special inductive loop to provide hearing assistance to hearing aid users.
- Product dimensions: 198 x 81 x 43 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22003-W | | Audio handset indoor station, 3 buttons with induction loop, white | 1/25 |



### Audio handset indoor station, 6 buttons

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g. intercom door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Electromagnetic signals will be emitted by a special inductive loop to provide hearing assistance to hearing aid users.
- Product dimensions: 198 x 81 x 43 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M22001-W | | Audio handset indoor station, 6 buttons, white | 1/25 |

# Door entry system
## Welcome - Indoor stations



**Audio hands-free indoor station, 4 buttons**

- Light button can be customized as room-to-room intercom, call guard unit.
- Different bell tones for door-call and floor-call
- Choice of five different bell sounds
- Simple surface-mounting
- The ringtone can be fixed or cycled
- Floor-call function, a connected button functions as a floor-call button: all indoor stations with the same address trigger a floor call
- Diamentions: 175 x 81 x 22 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83210 AP-624-500 | | Audio handsfree, white | 1/26 |
| 83210 AP-681-500 | | Audio handsfree, black | 1/26 |
| 83210 AP-683-500 | | Audio handsfree, silver | 1/26 |

## Accessories



### Changeable front cover for 4.3“ video hands-free indoor station

- 5 face covers in different colors are available, which are easily changeable for 4.3“ video hands-free indoor station to meet personal aesthetic preference.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 52311FC-W | | Front cover for 4.3“ video hands-free, white | 1/36 |
| 52311FC-S | | Front cover for 4.3“ video hands-free, silver | 1/36 |
| 52311FC-B | | Front cover for 4.3“ video hands-free, black | 1/36 |
| 52311FC-G | | Front cover for 4.3“ video hands-free, golden | 1/36 |
| 52311FC-L | | Front cover for 4.3" video hands-free, light blue | 1/36 |



### Changeable front cover for 4.3“ video hands-free indoor station with induction loop

- 5 face covers in different colors are available, which are easily changeable for 4.3“ video hands-free indoor station with induction loop to meet personal aesthetic preference.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 52313FC-W | | Front cover for 4.3“ video hands-free with induction loop, white | 1/36 |
| 52313FC-S | | Front cover for 4.3“ video hands-free with induction loop, silver | 1/36 |
| 52313FC-B | | Front cover for 4.3“ video hands-free with induction loop, black | 1/36 |
| 52313FC-G | | Front cover for 4.3“ video hands-free with induction loop, golden | 1/36 |
| 52313FC-L | | Front cover for 4.3" video hands-free with induction loop, light blue | 1/36 |



### Flush mounted box for 4.3“ video hands-free indoor station

- Metal box for flush mounted 4.3“ video hands-free indoor stations.
- Product dimensions: 145 x 125 x 27 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 42311F | | Metal flush mounted box | 1/60 |



### Desktop bracket

- Full metal design with brushed finish base, suitable for 7“ all touch, 4.3“ hands-free video indoor station, 4.3“ handset video indoor station and guard unit.
- Product dimensions: 125 x 107 x 134 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 42311D | | Metal desktop bracket | 1/ 12 |

# Door entry system
## Welcome - Indoor stations



### Handset with induction loop

- Suitable for audio handset indoor station with induction loop and 4.3“ video handset indoor station with induction loop.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 52303HS-W | | Handset with induction loop (spare part) | |



### Jumper

- Jumper set for audio / video handset indoor stations is used to set the address, master / slave indoor station and RC on / off of indoor stations.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 52001J | | Jumper set for audio handset indoor station | |
| 52301J | | Jumper set for 4.3" video handset indoor station | |



### Cavity wall set

- For cavity wall mounting of the flush-mounted wall boxes.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 51021CS | | Cavity wall set for outdoor station and 4.3" video handsfree | 1/18 |

# Door entry system
## Welcome - System devices



### System controller
- As the „brain“ of the individual system, it manages the communication between the outdoor station and the indoor station.
- Two working modes : „all on“ and „one on.“.
- If in „all on“ mode, and the apartment contains more than 1 video indoor station, all the screens in the apartment will be on while only one is on if in „one on“ mode.
- It can also serve as auxiliary BUS power supply when connected to gateway in certain mode.
- 1 LED for normal working condition indication.
- Overheat, short-circuit and lightening protection.
- Product dimensions: 90 x 144 x 65 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2300 | | System controller, 1.2A output, MDRC 8U | 1/10 |



### Mini system controller
- As the „brain“ of the individual system, it manages the communications between the outdoor station and the indoor station.
- Two working modes: „all on“ and „one on“.
- If in „all on“ mode, and the apartment contains more than 1 video indoor station, all the screens in the apartment will be on while only one is on if in „one on“ mode.
- It can also serve as auxiliary BUS power supply when connected to gateway in certain mode.
- 1 LED for normal working condition indication.
- Overheat, short-circuit and lightening protection.
- Product dimensions: 90 x 72 x 65 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2301 | | Mini system controller, 0.65A output, MDRC 4U | 1/10 |



### Gateway
- It offers 5 different modes which can be set by dip switch: apartment gateway, floor gateway, building gateway, auxiliary BUS power supply interface and line amplifier.
- Product dimensions: 90 x 72 x 65 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2302 | | Gateway, MDRC 4U | 1/10 |



### Video outdoor distributor
- Used for buildings with more than 1 outdoor station.
- 2-way inputs are connected to different outdoor stations.
- Product dimensions: 90 x 36 x 65 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83325/2-500 | | Video outdoor distributor, MDRC 2U | 1/20 |

# Door entry system
## Welcome - System devices



### Guard unit

- 4.3“ touch screen and 6 touch film buttons can ensure the communication with calls from outdoor station, indoor station or other guard unit (if any).
- It can be manually or automatically set into intercept mode to increase security level for all users or only certain individuals.
- Surveillance can be done through the camera of outdoor stations or integrated analog camera.
- Missed calls and alarm messages stored in the memory can be reviewed.
- It can be surface mounted on the wall or desktop mounted (desktop bracket 42311D is needed).
- Product dimensions: 144 x 198 x 45 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2303 | | Guard Unit | 1/15 |



### Video distributor

- This compact device supports 4-way outputs connected to different apartments or different high-rise buildings.
- Flush-mounted into box or surface mounted through the hole in the middle,or DIN rail mounted via DIN adaptor(Article no. 53001DR)
- Product dimensions: 45 x 45 x 26 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2304 | | Video distributor, FM | 1/18 |



### Switch actuator

- This compact device has 3 working modes: extend door bell, door opener and time relay.
- Local pushbutton can be connected as control input.
- The switching duration of unlock or switching on lightings is adjustable.
- Flush-mounted or DIN rail mounted via DIN adaptor(Article no. 53001DR)
- Product dimensions: 51 x 51 x 29 mm.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2305 | | Switch actuator, FM | 1/18 |



### BNC connector

- Used to connect the external camera to the camera interface or outdoor station’s camera module.
- The connector accepts a BNC plug connection directly.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 55001BC | | BNC connector | |



### Camera interface

- Supports up to 4 analog 3rd party cameras for one device.
- Supports camera connection to the existing video/audio outdoor station.
- Supports transfer of image from guard unit to the indoor station.
- Supports the camera for viewing the area of the floor (for example with the connection from indoor station to this interface, where it connects to the analog camera.
- Supports input and output of video signal of outdoor station to 3rd party VDR during the call, which can be viewed from the video indoor station).
- Supports installation in DIN, surface mounted.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83327-500 | | 4-way analog camera interface | 1/18 |



### DIN rail adaptor

- One DIN rail adaptor fit for all the flush mounted devices: video distributor, switch actuator, and camera interface
- Adjustable and consistent looking cover can be taken out if needed.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 53001DR | | DIN rail adaptor | 1/10 |



### IP Gateway

- Enables Smartphones (iOS and Android) and tablet by installing the app as video indoor station.
- Supports both WIFI and remote access under 3G/4G with the help of service provider.
- Enables the integration with ABB Comfort touch as indoor station.
- PC interface efficiently programs telephone gateway products.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83342-500 | | IP-Gateway | 1/24 |



### Telephone Gateway

- PSTN Telephone integrated as audio indoor station.
- Unlock the door, switch the light, communication can be done through normal telephone.
- Any mobile device can be set as extended indoor station.
- Efficient programming through PC by IP Gateway.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| 83350-500 | | Telephone Gateway | 1/10 |





### Lift control module

- Enhance security to allow authorized visitor/resident to ONLY go to the designated floor while unauthorized visitor can not activate any floor button in the lift.
- Efficient programming through PC by dedicated commissioning software.
- Each module supports up to 16 floors, total up to 16 modules can be cascaded.

| Article No. | Order No. | Description | Pack Qty |
|---|---|---|---|
| M2307 | | Lift control relay module | 1/30 |
| M2306 | | M adaptor (two functions: PC adaptor and lift control module) | 1/10 |

# Solutions for electrical distribution in buildings
## Enclosures

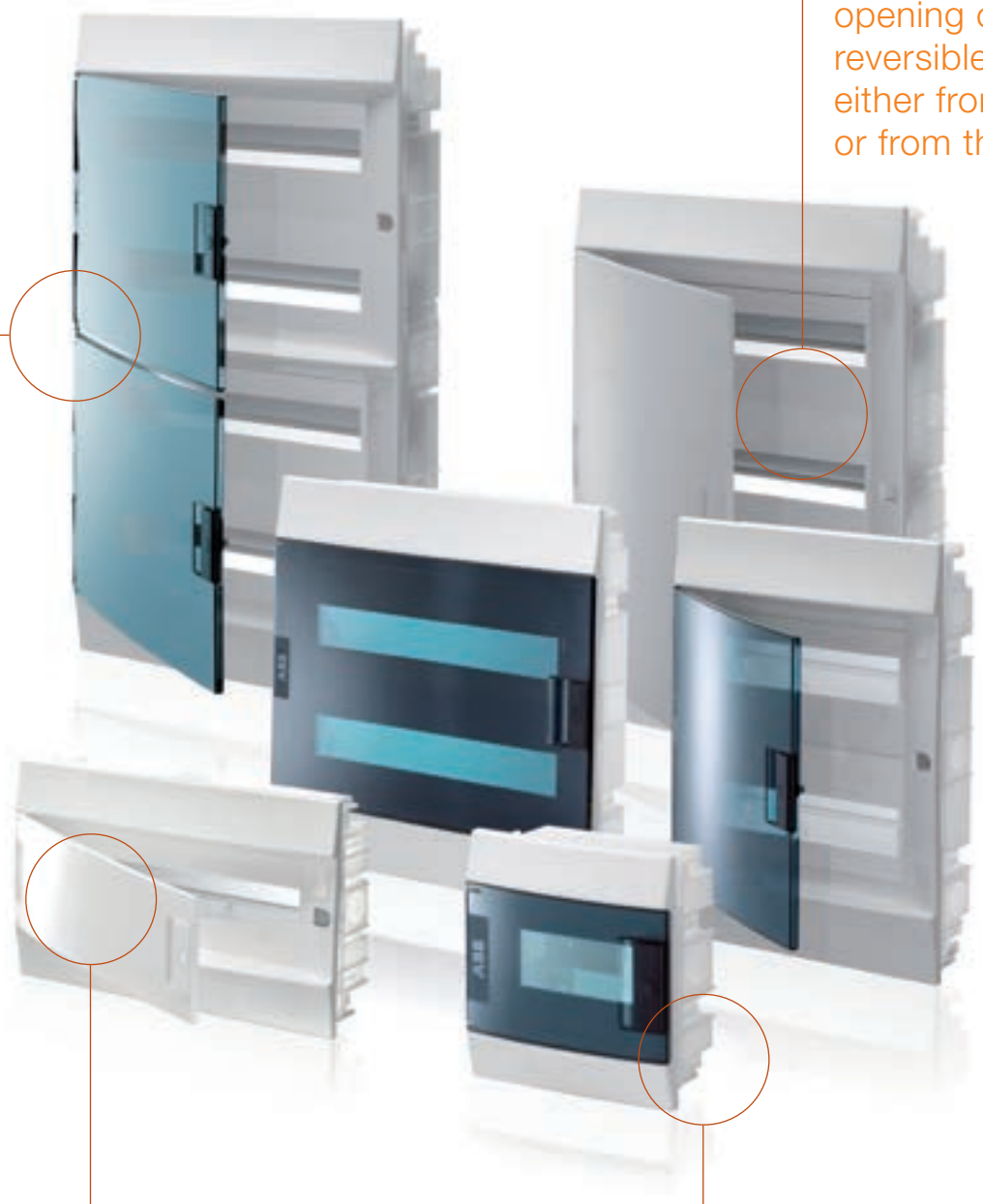
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# System pro *E* comfort MISTRAL41F
## Endless installation possibilities

Door opens up to 180° allowing full access to the interior of the unit

The symmetrical design allows opening of the reversible door either from the left or from the right



Door available in two versions: petrol blue and opaque

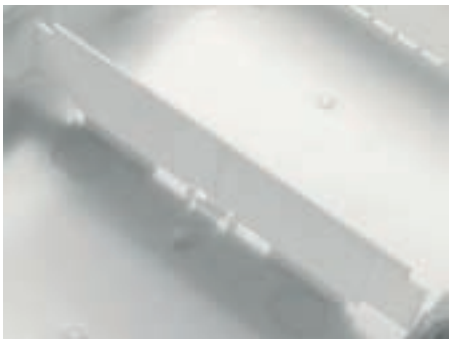
The depth of the base box ensures a perfect balance between internal space and the possibility of installation in thin walls



### Horizontal coupling
The consumer units can be coupled side by side with the horizontal junction unit accessory, protecting the passage of cables between adjacent units.



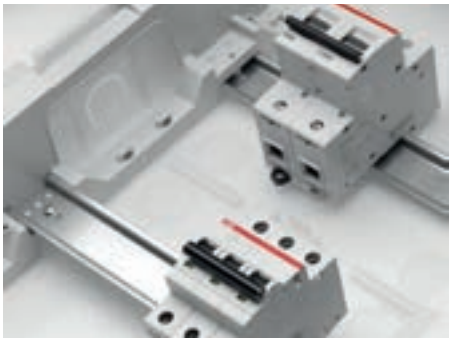
### Dual-function accessory
A single accessory performs a dual function. It can be used to fix pipes to the unit's housing or to vertically couple two consumer units.



### Internal partition
The horizontal partition allows the interior of the unit to be divided into two parts.



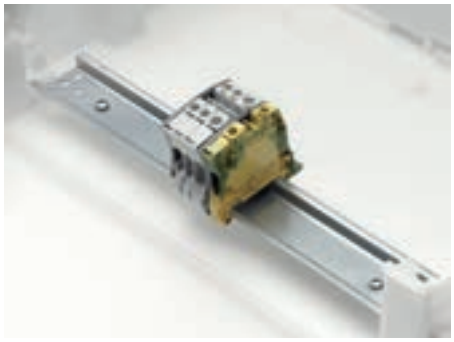
### Flanges
The flange with multi pre-cuts is designed to be sheared only where necessary in order to ensure a more secure fastening. The removable flange with knockout holes ensure a reliable and safe placing of flexible pipes and other conduits, especially in plasterboard installation.



### Two DIN-Rail positions
The extractable frame has two DIN-Rail positions so devices of different depths, like S200 or S800 miniature circuit breakers, can be installed in perfect alignment.



### Captive screw covers
Screw covers are hooked to the front panel so they can be removed without the risk of losing them.



### DIN-Rail terminals
It is possible to install an extra DIN-Rail at the top and bottom of the consumer unit, starting from 12 modules size.



### Horizontal levelling
The external adjustments of the front cover assure a perfect horizontal levelling even if the consumer unit is slightly crooked.



### New generations terminals
The new System pro *E* comfort MISTRAL® range of consumer units is supplied with a wide, completely new ABB terminal block range. Two different versions offer screw and spring fast coupling for easy and effective cabling up to 63A or 100A.

# Enclosures
## System pro *E* comfort MISTRAL41F for concrete wall






4 modules






6 modules






8 modules






12 modules






18 modules






24 modules



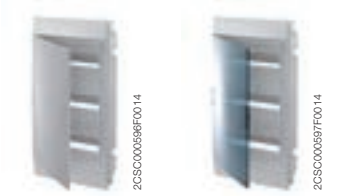



36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **1 Row** | | | | | | |
| Consumer units MISTRAL41 flush opaque door 4M | 650 | 4 | 152x202x105 | 1SLM004100A1100 | | 1/24 |
| Consumer units MISTRAL41 flush transparent door 4M | 650 | 4 | 152x202x105 | 1SLM004100A1200 | | 1/24 |
| Front MISTRAL41 flush transparent door 4M | 650 | 4 | 152x202x25 | 1SLM004100A1600 | | 1/24 |
| Flush-mounting box 650 MISTRAL41 4M | 650 | 4 | 129x182x80 | 1SLM004100A1700 | | 1/24 |
| Consumer units MISTRAL41 flush opaque door 6M | 650 | 6 | 192x202x105 | 1SLM004100A1101 | | 1/18 |
| Consumer units MISTRAL41 flush transparent door 6M | 650 | 6 | 192x202x105 | 1SLM004100A1201 | | 1/18 |
| Front MISTRAL41 flush transparent door 6M | 650 | 6 | 192x202x25 | 1SLM004100A1601 | | 1/18 |
| Flush-mounting box 650 MISTRAL41 6M | 650 | 6 | 149x182x80 | 1SLM004100A1701 | | 1/18 |
| Consumer units MISTRAL41 flush opaque door 8M | 650 | 8 | 232x250x108 | 1SLM004100A1102 | | 1/12 |
| Consumer units MISTRAL41 flush transparent door 8M | 650 | 8 | 232x250x108 | 1SLM004100A1202 | | 1/12 |
| Front MISTRAL41 flush transparent door 8M | 650 | 8 | 232x250x28 | 1SLM004100A1602 | | 1/12 |
| Flush-mounting box 650 MISTRAL41 8M | 650 | 8 | 206x230x80 | 1SLM004100A1702 | | 1/12 |
| Consumer units MISTRAL41 flush opaque door 12M | 650 | 12 | 320x250x108 | 1SLM004100A1103 | | 1/9 |
| Consumer units MISTRAL41 flush transparent door 12M | 650 | 12 | 320x250x108 | 1SLM004100A1203 | | 1/9 |
| Front MISTRAL41 flush transparent door 12M | 650 | 12 | 320x250x28 | 1SLM004100A1603 | | 1/9 |
| Flush-mounting box 650 MISTRAL41 12M | 650 | 12 | 294x230x80 | 1SLM004100A1703 | | 1/9 |
| Consumer units MISTRAL41 flush opaque door 18M | 650 | 18 | 430x250x108 | 1SLM004100A1104 | | 1/6 |
| Consumer units MISTRAL41 flush transparent door 18M | 650 | 18 | 430x250x108 | 1SLM004100A1204 | | 1/6 |
| Front MISTRAL41 flush transparent door 18M | 650 | 18 | 430x250x28 | 1SLM004100A1604 | | 1/6 |
| Flush-mounting box 650 MISTRAL41 18M | 650 | 18 | 404x230x80 | 1SLM004100A1704 | | 1/6 |
| **2 Rows** | | | | | | |
| Consumer units Mistral41 flush opaque door 24M | 650 | 24 | 320x435x108 | 1SLM004100A1105 | | 1/5 |
| Consumer units Mistral41 flush transparent door 24M | 650 | 24 | 320x435x108 | 1SLM004100A1205 | | 1/5 |
| Front Mistral41 flush transparent door 24M | 650 | 24 | 320x435x28 | 1SLM004100A1605 | | 1/5 |
| Flush-mounting box 650 Mistral41 24M | 650 | 24 | 294x415x80 | 1SLM004100A1705 | | 1/5 |
| Consumer units Mistral41 flush opaque door 36M 2F | 650 | 36 | 430x435x108 | 1SLM004100A1106 | | 1/3 |
| Consumer units Mistral41 flush transparent door 36M 2F | 650 | 36 | 430x435x108 | 1SLM004100A1206 | | 1/3 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details



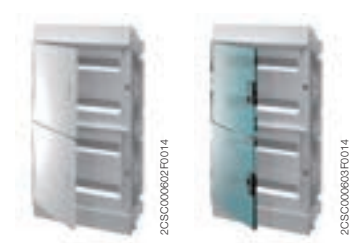

36 modules




54 modules




48 modules




72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **3 Rows** | | | | | | |
| Consumer units MISTRAL41 flush opaque door 36M 3F | 650 | 36 | 320x600x108 | 1SLM004100A1107 | | 1/4 |
| Consumer units MISTRAL41 flush transparent door 36M 3F | 650 | 36 | 320x600x108 | 1SLM004100A1207 | | 1/4 |
| Consumer units MISTRAL41 flush opaque door 54M | 650 | 54 | 430x600x128 | 1SLM004100A1109 | | 1/1 |
| Consumer units MISTRAL41 flush transparent door 54M | 650 | 54 | 430x600x128 | 1SLM004100A1209 | | 1/1 |
| **4 Rows** | | | | | | |
| Consumer units MISTRAL41 flush opaque door 48M | 650 | 48 | 320x735x108 | 1SLM004100A1108 | | 1/1 |
| Consumer units MISTRAL41 flush transparent door 48M | 650 | 48 | 320x735x108 | 1SLM004100A1208 | | 1/1 |
| Consumer units MISTRAL41 flush opaque door 72M | 650 | 72 | 430x735x128 | 1SLM004100A1110 | | 1/1 |
| Consumer units MISTRAL41 flush transparent door 72M | 650 | 72 | 430x735x128 | 1SLM004100A1210 | | 1/1 |

# Enclosures
## System pro *E* comfort MISTRAL41F for hollow wall




4 modules




6 modules



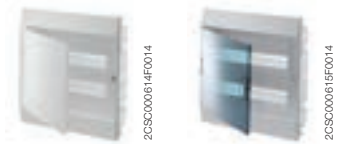

8 modules




12 modules




18 modules




24 modules




36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **1 Row** | | | | | | |
| Consumer units MISTRAL41 flush 850 opaque door 4M | 850 | 4 | 152x202x105 | 1SLM004100A1300 | | 1/24 |
| Consumer units MISTRAL41 flush 850 transparent door 4M | 850 | 4 | 152x202x105 | 1SLM004100A1400 | | 1/24 |
| Consumer units MISTRAL41 flush 850 opaque door 6M | 850 | 6 | 192x202x105 | 1SLM004100A1301 | | 1/18 |
| Consumer units MISTRAL41 flush 850 transparent door 6M | 850 | 6 | 192x202x105 | 1SLM004100A1401 | | 1/18 |
| Consumer units MISTRAL41 flush 850 opaque door 8M | 850 | 8 | 232x250x108 | 1SLM004100A1302 | | 1/12 |
| Consumer units MISTRAL41 flush 850 transparent door 8M | 850 | 8 | 232x250x108 | 1SLM004100A1402 | | 1/12 |
| Consumer units MISTRAL41 flush 850 opaque door 12M | 850 | 12 | 320x250x108 | 1SLM004100A1303 | | 1/9 |
| Consumer units MISTRAL41 flush 850 transparent door 12M | 850 | 12 | 320x250x108 | 1SLM004100A1403 | | 1/9 |
| Consumer units MISTRAL41 flush 850 opaque door 18M | 850 | 18 | 430x250x108 | 1SLM004100A1304 | | 1/6 |
| Consumer units MISTRAL41 flush 850 transparent door 18M | 850 | 18 | 430x250x108 | 1SLM004100A1404 | | 1/6 |
| **2 Rows** | | | | | | |
| Consumer units MISTRAL41 flush 850 opaque door 24M | 850 | 24 | 320x435x108 | 1SLM004100A1305 | | 1/5 |
| Consumer units MISTRAL41 flush 850 transparent door 24M | 850 | 24 | 320x435x108 | 1SLM004100A1405 | | 1/5 |
| Consumer units MISTRAL41 flush 850 opaque door 36M 2F | 850 | 36 | 430x435x108 | 1SLM004100A1306 | | 1/3 |
| Consumer units MISTRAL41 flush 850 transparent door 36M 2F | 850 | 36 | 430x435x108 | 1SLM004100A1406 | | 1/3 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details






36 modules






54 modules






48 modules






72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **3 Rows** | | | | | | |
| Consumer units MISTRAL41 flush 850 opaque door 36M 3F | 850 | 36 | 320x600x108 | 1SLM004100A1307 | | 1/4 |
| Consumer units MISTRAL41 flush 850 transparent door 36M 3F | 850 | 36 | 320x600x108 | 1SLM004100A1407 | | 1/4 |
| Consumer units MISTRAL41 flush 850 opaque door 54M | 850 | 54 | 430x600x128 | 1SLM004100A1309 | | 1/1 |
| Consumer units MISTRAL41 flush 850 transparent door 54M | 850 | 54 | 430x600x128 | 1SLM004100A1409 | | 1/1 |
| **4 Rows** | | | | | | |
| Consumer units MISTRAL41 flush 850 opaque door 48M | 850 | 48 | 320x735x108 | 1SLM004100A1308 | | 1/1 |
| Consumer units MISTRAL41 flush 850 transparent door 48M | 850 | 48 | 320x735x108 | 1SLM004100A1408 | | 1/1 |
| Consumer units MISTRAL41 flush 850 opaque door 72M | 850 | 72 | 430x735x128 | 1SLM004100A1310 | | 1/1 |
| Consumer units MISTRAL41 flush 850 transparent door 72M | 850 | 72 | 430x735x128 | 1SLM004100A1410 | | 1/1 |

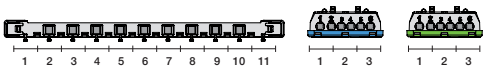
# Enclosures
## System pro *E* comfort MISTRAL41F for concrete wall






**8 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 8M 12SM | 650 | 8 | 232x250x108 | 1SLM004101A1202 | | 1/12 |
| MISTRAL41F flush opaque door 8M 12SM | 650 | 8 | 232x250x108 | 1SLM004102A1102 | | 1/12 |



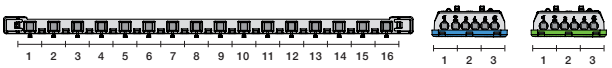






**12 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 12M 12SM | 650 | 12 | 320x250x108 | 1SLM004101A1203 | | 1/8 |
| MISTRAL41F flush opaque door 12M 12SM | 650 | 12 | 320x250x108 | 1SLM004102A1103 | | 1/8 |



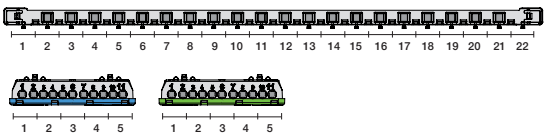






**18 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 18M 22SM | 650 | 18 | 430x250x108 | 1SLM004101A1204 | | 1/6 |
| MISTRAL41F flush opaque door 18M 22SM | 650 | 18 | 430x250x108 | 1SLM004102A1104 | | 1/6 |



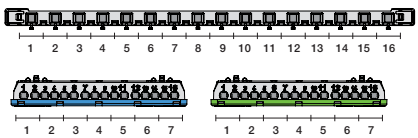






**24 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 24M 32SM | 650 | 24 | 320x435x108 | 1SLM004101A1205 | | 1/5 |
| MISTRAL41F flush opaque door 24M 32SM | 650 | 24 | 320x435x108 | 1SLM004102A1105 | | 1/5 |




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**Where to find more:**
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Solutions for electrical distribution in buildings - technical details

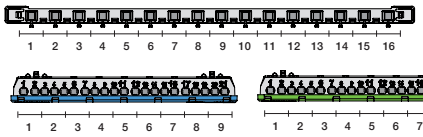






36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 36M 2F 42SM | 650 | 36 | 430x435x108 | 1SLM004101A1206 | | 1/3 |
| MISTRAL41F flush opaque door 36M 2F 42SM | 650 | 36 | 430x435x108 | 1SLM004102A1106 | | 1/3 |



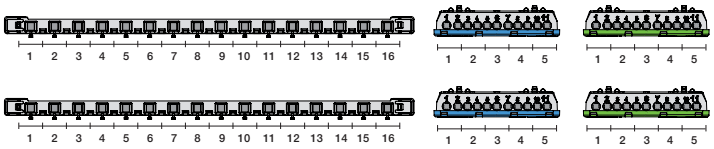







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 36M 3F 44SM | 650 | 36 | 320x600x108 | 1SLM004101A1207 | | 1/4 |
| MISTRAL41F flush opaque door 36M 3F 44SM | 650 | 36 | 320x600x108 | 1SLM004102A1107 | | 1/4 |



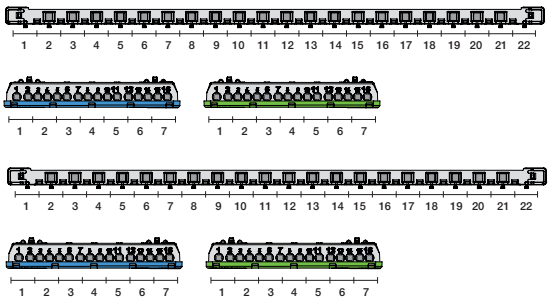







54 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 54M 64SM | 650 | 54 | 430x600x128 | 1SLM004101A1209 | | 1/1 |
| MISTRAL41F flush opaque door 54M 64SM | 650 | 54 | 430x600x128 | 1SLM004102A1109 | | 1/1 |



# Enclosures
## System pro *E* comfort MISTRAL41F for concrete wall

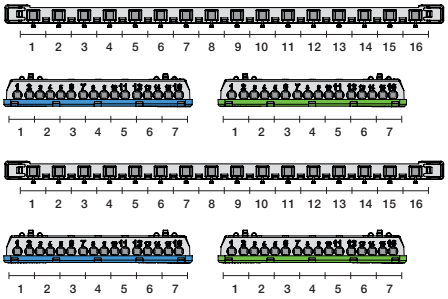






48 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 48M 64SM | 650 | 48 | 320x735x108 | 1SLM004101A1208 | | 1/1 |
| MISTRAL41F flush opaque door 48M 64SM | 650 | 48 | 320x735x108 | 1SLM004102A1108 | | 1/1 |



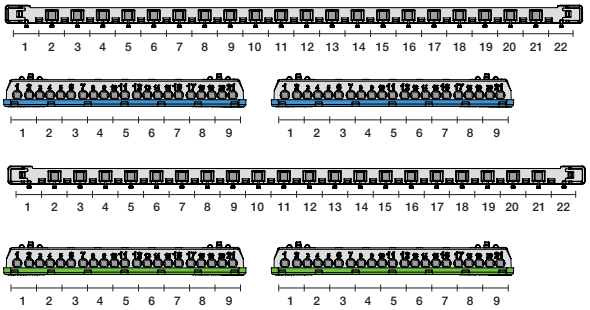







72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41F flush transparent door 72M 84SM | 650 | 72 | 430x735x128 | 1SLM004101A1210 | | 1/1 |
| MISTRAL41F flush opaque door 72M 84SM | 650 | 72 | 430x735x128 | 1SLM004102A1110 | | 1/1 |






**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## System pro *E* comfort MISTRAL41F accessories




Opaque door




Transparent door




Horizontal junction unit




Wires holder comb




Blind panels




Lock




Module cover




Vertical coupling / tube holders




Horizontal partition

| Description | N° of modules [18 mm] | Order details Order code | Price | Packaging |
|---|---|---|---|---|
| **Opaque door** | | | | |
| Opaque door 4M MISTRAL41F | 4 | 1SLM004100A1900 | | 1/20 |
| Opaque door 6M MISTRAL41F | 6 | 1SLM004100A1916 | | 1/20 |
| Opaque door 8M MISTRAL41F | 8 | 1SLM004100A1902 | | 1/10 |
| Opaque door 12M MISTRAL41F | 12 | 1SLM004100A1904 | | 1/20 |
| Opaque door 18M MISTRAL41F | 18 | 1SLM004100A1906 | | 1/20 |
| Opaque door 24M / 48M MISTRAL41F | 24 | 1SLM004100A1908 | | 1/15 |
| Opaque door 36M MISTRAL41F | 36 | 1SLM004100A1910 | | 1/10 |
| Opaque door 36M / 72M MISTRAL41F | 36 | 1SLM004100A1912 | | 1/10 |
| Opaque door 54M MISTRAL41F | 54 | 1SLM004100A1914 | | 1/5 |
| **Transparent door** | | | | |
| Transparent door 4M MISTRAL41F | 4 | 1SLM004100A1901 | | 1/20 |
| Transparent door 6M MISTRAL41F | 6 | 1SLM004100A1917 | | 1/20 |
| Transparent door 8M MISTRAL41F | 8 | 1SLM004100A1903 | | 1/10 |
| Transparent door 12M MISTRAL41F | 12 | 1SLM004100A1905 | | 1/20 |
| Transparent door 18M MISTRAL41F | 18 | 1SLM004100A1907 | | 1/20 |
| Transparent door 24M / 48M MISTRAL41F | 24 | 1SLM004100A1909 | | 1/15 |
| Transparent door 36M MISTRAL41F | 36 | 1SLM004100A1911 | | 1/10 |
| Transparent door 36M / 72M MISTRAL41F | 36 | 1SLM004100A1913 | | 1/10 |
| Transparent door 54M MISTRAL41F | 54 | 1SLM004100A1915 | | 1/5 |
| **Other accessories** | | | | |
| Horizontal partition 12M MISTRAL41F | 12 | 1SLM004100A1920 | | 1/100 |
| Horizontal partition 18M MISTRAL41F | 18 | 1SLM004100A1921 | | 1/100 |
| Vertical coupling / tubes holder 12M | 12 | 1SLM004100A1922 | | 1/20 |
| Vertical coupling / tubes holder 18M | 18 | 1SLM004100A1923 | | 1/15 |
| Module cover 12M RAL9016 | 12 | 1SLM004100A1929 | | 5/180 |
| Lock with key MISTRAL41F | - | 1SLM004100A1931 | | 20/300 |
| Central blind panel 12M MISTRAL41F * | 12 | 1SLM004100A1945 | | 1/20 |
| Blind panel 12M MISTRAL41F | 12 | 1SLM004100A1946 | | 1/20 |
| Central blind panel 18M MISTRAL41F ** | 18 | 1SLM004100A1947 | | 1/30 |
| Blind panel 18M MISTRAL41F | 18 | 1SLM004100A1948 | | 1/30 |
| Horizontal junction unit | - | 1SLM004100A1949 | | 1/50 |
| Wires holder comb | - | 1SLM004100A1942 | | 1/30 |
| Spirit level | - | 1SLM004100A1943 | | 1/30 |
| Kit hollow wall MISTRAL41F | - | 1SLM004100A1944 | | 1/6 |

* Blind panel for the central row of MISTRAL41F 36 modules (3 x 12)
** Blind panel for the central row of MISTRAL41F 54 modules (3 x 18)

# UK500 Flush-mounting Series
## The details make the difference

Cover with sealable 90° quick-action locking screws

Time-saving installation thanks to intelligent plug-in technology in the form of the N/PE quick busbar



Wall box made of torsionally-rigid, non-breakable, flame-resistant, low-halogen plastic with cable entry slides

Design doors, picture frame, stainless steel, transparent and differently coloured doors available as an accessory

UK500 series can be used for flush- mounting, hollow-wall or as a wall-mounting version, as well as for partially-recessed mounting



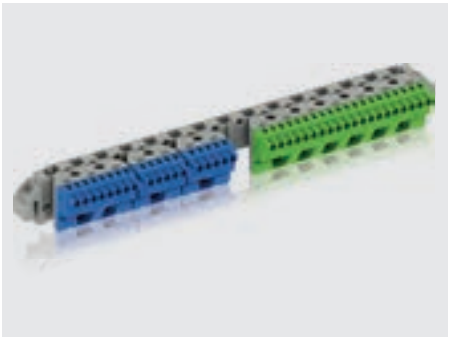
Removable cable inlet allows easy insertion of incoming and outgoing cables and uses a quick, single-hand-operated push and-stay design. Both cable inlets can be screwed tight when installation is complete.



The non-warp, non-breakable and non-flammable wall box offers large wiring space. The strain-relief comb for neat cabling is an integral part of the wall box. there are ample further pre-formed cable entry points on the sides and back of the wall box.



All UK500 Series are suitable for hollow-wall installation. Upgrading is incredibly quick and simple – just as easy as the hollow wall installation itself. You just need the UZ90P4 hollow wall set for UK500. No screws, yet nothing can slip. Fastening it is as easy as fastening cable ties.



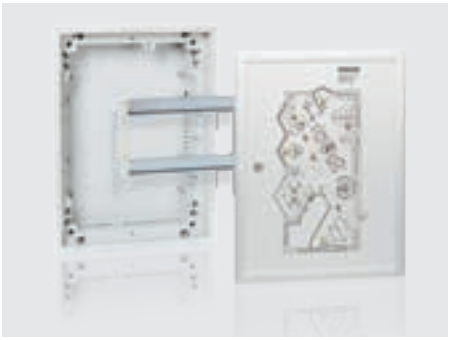
Time-saving installation thanks to intelligent plug-in technology. The N/PE Quick busbars are of the plug-in variety. If required, the N-RCD terminal can also be attached to the DIN-Rail and will not twist. There are also versions available with screw-type terminals.



Multifunctional wall grips: Can be used as a spacer when mounting consumer units side by side or to adjust the mounting depth by two more levels.



The removable device support can be snapped in and is installed quickly without tools. Here too, a variety of common installation techniques have been catered for – the device support can also be fixed in position using screws.



The “tech line” control panel of the UK500 Series offers that extra bit more. The monitoring and operation such as the control of lighting systems is taken care of by the control panel in a way that’s both easy-to view and decorative. The control panel can be finished by the user or supplied already wired and printed by the factory.



The rapid development of information technologies means that ever more media and communication devices are to be found in homes. In the new multimedia enclosure you have all your media applications at a glance with the central assembly of media and communications technology in distribution cabinets.



Functional yet elegant – a perfect example of how easy it can be to combine these two essential features. Beautiful and perfectly formed – the design doors for the UK500 Series are an embodiment of the design principle based on reducing things right down to the essentials. You would never believe that these high-quality design doors conceal a technical product.

# Enclosures
## UK500N with trim frame and doors with N/PE Quick-terminals



| Flush-mounted consumer units – UK500N, IP30 |
|---|
| $I_n$ up to 63 A |
| Consumer unit DIN VDE 0603-1, DIN 43871 |
| Available in 1 up to 4 row versions as flush-mounted consumer units |
| Upgradeable for hollow-wall mounting using UZ90P4 |
| Wall box: |
| - Non-warp, break-proof, non-flammable, low-halogen plastic |
| With cable strain relief comb |
| - With detachable cable inlets |
| Wall grips |
| Removable device support |
| **With the new N/PE Quick-terminals** |
| Cover with 90° quick-action screws, lead-sealable |
| 45 mm slots for 12 devices, expandable to 14 |
| Labelling system |
| Trim frame and sheet steel door, adjustable for uneven surface |
| Colour: White, RAL 9016 |

* In connection with UZ90P4



2CSC000679F0014

**UK512N2**



2CSC000680F0014

**UK524N3**



2CSC000681F0014

**UK536N3**



2CSC000682F0014

**UK548N3**

| Article | H x W x D in mm | SU | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| **Flush-mounted consumer units, 1-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 335 x 350 x 95<br>308 x 327 x 88 | 12 (13) | UK512N2 | 2CPX031281R9999 | |
| **Flush-mounted consumer units, 2-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 460 x 350 x 95<br>433 x 327 x 88 | 24 (28) | UK524N3 | 2CPX031282R9999 | |
| **Flush-mounted consumer units, 3-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 585 x 350 x 95<br>558 x 327 x 88 | 36 (41) | UK536N3 | 2CPX031283R9999 | |
| **Flush-mounted consumer units, 4-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 710 x 350 x 95<br>683 x 327 x 88 | 48 (56) | UK548N3 | 2CPX031284R9999 | |

> Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Accessories / Equipment in the UK500N


2CSC000683F0014

ZK113B


2CSC000684F0014

ZK50BT


2CSC000685F0014

ZK113G


2CSC000686F0014

ZK10P10


2CSC000687F0014

ZK11


2CSC000688F0014

ZK15


2CSC000658F0014

ZK210


2CSC000659F0014

ZK211

| Article | Number of terminals 1.5 - 4 mm² | Number of terminals 2.5 - 25 mm² | External dimensions H x W x D in mm | Pcs. | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **N Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 0 | 23 x 32 x 21 | 1 | ZK50B | 2CPX062750R9999 | |
| | 5 | 1 | 32 x 32 x 31 | 1 | ZK51B | 2CPX062751R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82B | 2CPX062752R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113B | 2CPX062753R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144B | 2CPX062754R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175B | 2CPX062755R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206B | 2CPX062756R9999 | |
| **N Quick-terminal with adapter ZK15** | | | | | | | |
| For lateral assembly to the UK5… , A3…or for fastening to the DIN-Rail | 5 | 0 | 28 x 39 x 25 | 1 | ZK50BT | 2CPX062745R9999 | |
| **PE Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 1 | 32 x 32 x 31 | 1 | ZK51G | 2CPX062757R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82G | 2CPX062758R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113G | 2CPX062759R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144G | 2CPX062760R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175G | 2CPX062761R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206G | 2CPX062762R9999 | |
| **Connecting bridges** | | | | | | | |
| For Quick-terminals | | | | 10 | ZK10P10 | 2CPX062763R9999 | |
| **Quick carriers** | | | | | | | |
| For consumer units UK5...<br>Usable width for Quick-terminals 247 mm | | | | 1 | ZK11 | 2CPX064980R9999 | |
| **Adapter for ZK50B** | | | | | | | |
| Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5… , A3 or to the DIN-Rail | | | | 1 | ZK15 | 2CPX064984R9999 | |
| **Terminals** | | | | | | | |
| N/PE for UK N=10, 10,5p. PE=18p. | | | | | ZK210 | 2CPX063128R9999 | |
| N/PE for UK N=18, 10p. PE=26p. | | | | | ZK211 | 2CPX063129R9999 | |

| Article | Type | Equipment with new N/PE Quick-terminals* UK512N2 | UK524N3 | UK536N3 | UK548N3 |
|---|---|---|---|---|---|
| Quick carrier for UK500N | ZK11 | 1 pc. | 1 pc. | 1 pc. | 1 pc. |
| Adapter for ZK50B | ZK15 | | | 1 pc. | 1 pc. |
| N Quick-terminal | ZK50B | | 1 pc. | 1 pc. | 1 pc. |
| | ZK51B | 1 pc. | | | |
| | ZK82B | 1 pc. | 2 pcs. | | 1 pc. |
| | ZK113B | | | 2 pcs. | |
| | ZK144B | | | | 1 pc. |
| PE Quick-terminal | ZK113G | 1 pc. | | | |
| | ZK144G | | 1 pc. | | |
| | ZK175G | | | 1 pc. | |
| | ZK206G | | | | 1 pc. |

* Included in the scope of delivery

# Enclosures

## Basic version UK500BN without trim frame and doors with N/PE Quick-terminals



| Flush-mounted consumer units – UK500BN, IP30 |
|---|
| $I_n$ up to 63 A |
| Consumer unit DIN VDE 0603-1, DIN 43871 |
| Available in 1 up to 4 row versions as flush-mounted consumer units |
| Upgradeable for hollow-wall mounting using UZ90P4 |
| Wall box: |
| Non-warp, break-proof, non-flammable, low-halogen plastic |
| With cable strain relief comb |
| With detachable cable inlets |
| Wall grips |
| Removable device support |
| **With the new N/PE Quick-terminals** |
| Cover with 90° quick-action screws, lead-sealable |
| 45 mm slots for 12 devices, expandable to 14 |
| Labelling system |

* In connection with UZ90P4



2CSC000690F0014

**UK512BN**



2CSC000691F0014

**UK524BN**



2CSC000692F0014

**UK536BN**



2CSC000693F0014

**UK548BN**

| Article | H x W x D in mm | SU | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|
| **Flush-mounted consumer units, 1-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 335 x 350 x 95<br>308 x 327 x 88 | 12 (14*) | UK512BN2 | 2CPX031285R9999 | |
| **Flush-mounted consumer units, 2-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 460 x 350 x 95<br>433 x 327 x 88 | 24 (28) | UK524BN3 | 2CPX031286R9999 | |
| **Flush-mounted consumer units, 3-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 585 x 350 x 95<br>558 x 327 x 88 | 36 (42*) | UK536BN3 | 2CPX031287R9999 | |
| **Flush-mounted consumer units, 4-row** | | | | | |
| Niche dimensions<br>Wall cut out dimensions for hollow-wall mounting | 710 x 350 x 95<br>683 x 327 x 88 | 48 (56) | UK548BN3 | 2CPX031288R9999 | |

* In connection with a standard door, "vision line" or "color line" with TIP-in closure there will be one space unit less.
> Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Accessories / Equipment with UK500BN


2CSC000694F0014

ZK113B


2CSC000695F0014

ZK50BT


2CSC000696F0014

ZK113G


2CSC000697F0014

ZK10P10


2CSC000698F0014

ZK11


2CSC000699F0014

ZK15


2CSC000658F0014

ZK210


2CSC000659F0014

ZK211

| Article | Number of terminals 1.5 - 4 mm² | Number of terminals 2.5 - 25 mm² | External dimensions H x W x D in mm | Pcs. | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **N Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 0 | 23 x 32 x 21 | 1 | ZK50B | 2CPX062750R9999 | |
| | 5 | 1 | 32 x 32 x 31 | 1 | ZK51B | 2CPX062751R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82B | 2CPX062752R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113B | 2CPX062753R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144B | 2CPX062754R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175B | 2CPX062755R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206B | 2CPX062756R9999 | |
| **N Quick-terminal with adapter ZK15** | | | | | | | |
| For lateral assembly to the UK5… , A3…or for fastening to the DIN-Rail | 5 | 0 | 28 x 39 x 25 | 1 | ZK50BT | 2CPX062745R9999 | |
| **PE Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 1 | 32 x 32 x 31 | 1 | ZK51G | 2CPX062757R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82G | 2CPX062758R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113G | 2CPX062759R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144G | 2CPX062760R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175G | 2CPX062761R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206G | 2CPX062762R9999 | |
| **Connecting bridges** | | | | | | | |
| For Quick-terminals | | | | 10 | ZK10P10 | 2CPX062763R9999 | |
| **Quick carriers** | | | | | | | |
| For consumer units UK5...<br>Usable width for Quick-terminals 247 mm | | | | 1 | ZK11 | 2CPX064980R9999 | |
| **Adapter for ZK50B** | | | | | | | |
| Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5… , A3 or to the DIN-Rail | | | | 1 | ZK15 | 2CPX064984R9999 | |
| **Terminals** | | | | | | | |
| N/PE for UK N=10, 10,5p. PE=18p. | | | | | ZK210 | 2CPX063128R9999 | |
| N/PE for UK N=18, 10p. PE=26p. | | | | | ZK211 | 2CPX063129R9999 | |

| Article | Type | Equipment with new N/PE Quick-terminals* UK512BN2 | UK524BN3 | UK536BN3 | UK548BN3 |
|---|---|---|---|---|---|
| Quick carrier for UK500BN | ZK11 | 1 pc. | 1 pc. | 1 pc. | 1 pc. |
| Adapter for ZK50B | ZK15 | | | 1 pc. | 1 pc. |
| N Quick-terminal | ZK50B | | 1 pc. | 1 pc. | 1 pc. |
| | ZK51B | 1 pc. | | | |
| | ZK82B | 1 pc. | 2 pcs. | | 1 pc. |
| | ZK113B | | | 2 pcs. | |
| | ZK144B | | | | 1 pc. |
| PE Quick-terminal | ZK113G | 1 pc. | | | |
| | ZK144G | | 1 pc. | | |
| | ZK175G | | | 1 pc. | |
| | ZK206G | | | | 1 pc. |

* Included in the scope of delivery

# Enclosures

## Complete version UK500 with trim frame and doors with screwable N/PE terminals


2CSC000700F0014

**UK510E**


2CSC000701F0014

**UK520E**


2CSC000702F0014

**UK530E**


2CSC000703F0014

**UK540E**

| Article | H x W x D in mm | SU | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| **Flush-mounted consumer units, 1-row** | | | | | |
| Niche dimensions for flush-mounting<br>Wall cut out dimensions for<br>hallow wall mounting | 335 x 350 x 95<br>308 x 327 x 88 | 12 (13) | | | |
| With screwable N/PE terminals<br>and sheet steel door | | | UK510E | 2CPX077600R9999 | |
| With screwable N/PE terminals<br>and transparent door | | | UK510ETT | 2CPX031017R9999 | |
| Without N/PE terminals<br>With sheet steel door | | | UK510KE | 2CPX031001R9999 | |
| With screwable N/PE terminals<br>With sheet steel door<br>and cable inlet for tubes | | | UK510SN | 2CPX030819R9999 | |
| **Flush-mounted consumer units, 2-row** | | | | | |
| Niche dimensions for flush-mounting<br>Wall cut out dimensions for<br>hallow wall mounting | 460 x 350 x 95<br>433 X 327 x 88 | 24 (28) | | | |
| With screwable N/PE terminals<br>and sheet steel door | | | UK520E | 2CPX077601R9999 | |
| With screwable N/PE terminals<br>and transparent door | | | UK520ETT | 2CPX031018R9999 | |
| Without N/PE terminals<br>With sheet steel door | | | UK520KE | 2CPX031002R9999 | |
| With screwable N/PE terminals<br>With sheet steel door<br>and cable inlet for tubes | | | UK520SN | 2CPX030820R9999 | |
| **Flush-mounted consumer units, 3-row** | | | | | |
| Niche dimensions for flush-mounting<br>Wall cut out dimensions for<br>hallow wall mounting | 585 x 350 x 95<br>558 X 327 x 88 | 36 (41) | | | |
| With screwable N/PE terminals<br>and sheet steel door | | | UK530E | 2CPX077602R9999 | |
| With screwable N/PE terminals<br>and transparent door | | | UK530ETT | 2CPX031019R9999 | |
| Without N/PE terminals<br>With sheet steel door | | | UK530KE | 2CPX031003R9999 | |
| With screwable N/PE terminals<br>With sheet steel door<br>and cable inlet for tubes | | | UK530SN | 2CPX030821R9999 | |
| **Flush-mounted consumer units, 4-row** | | | | | |
| Niche dimensions for flush-mounting<br>Wall cut out dimensions for<br>hallow wall mounting | 710 x 350 x 95<br>683 X 327 x 88 | 48 (56) | | | |
| With screwable N/PE terminals<br>and sheet steel door | | | UK540E | 2CPX077603R9999 | |
| With screwable N/PE terminals<br>and transparent door | | | UK540ETT | 2CPX031020R9999 | |
| Without N/PE terminals<br>With sheet steel door | | | UK540KE | 2CPX031004R9999 | |
| With screwable N/PE terminals<br>With sheet steel door<br>and cable inlet for tubes | | | UK540SN | 2CPX030822R9999 | |

> Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

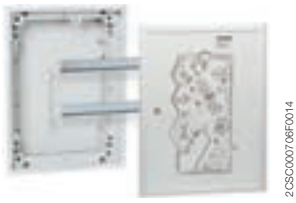
## Multimedia enclosures with and without trim frame and doors
## Consumer units with control panel FPT500




UK530MV




UZM530MV




FPT520

| Article | Remark | H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Flush-mounted multimedia enclosures with doors** | | | | | |
| Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes | Niche dimensions<br>Wall cut out dimensions<br>Mounting plate dimensions | 585 x 350 x 95<br>558 x 327 x 88<br>447 x 277 x 1.5 | UK530MV | 2CPX030839R9999 | |
| | Niche dimensions<br>Wall cut out dimensions<br>Mounting plate dimensions | 710 x 350 x 95<br>638 x 327 x 88<br>572 x 277 x 1.5 | UK540MV | 2CPX030840R9999 | |
| **Flush-mounted multimedia enclosures without doors** | | | | | |
| with perforated sheet steel mounting plate, wire holders, DIN-Rail and wall grips | Niche dimensions<br>Wall cut out dimensions<br>Mounting plate dimensions | 585 x 350 x 95<br>558 x 327 x 88<br>447 x 277 x 1.5 | UZM530MV | 2CPX030985R9999 | |
| | Niche dimensions<br>Wall cut out dimensions<br>Mounting plate dimensions | 710 x 350 x 95<br>683 x 327 x 88<br>572 x 277 x 1.5 | UM540MV | 2CPX030986R9999 | |

| Article | Internal dimensions of the control panel H x W in mm | External dimensions of the control panel H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Consumer units with control panel** | | | | | |
| Wall box with device support, removable DIN-Rails; aluminium control panel unprinted and unwired; the control panel can be finished by the user or supplied already wired and printed by the factory; control panels must only be mounted in vertical direction; door hinged right | 282 x 293 | 362 x 374 x 22 | FPT510 | 2CPX030825R9999 | |
| | 403 x 293 | 487 x 374 x 22 | FPT520 | 2CPX030826R9999 | |
| | 528 x 293 | 612 x 374 x 22 | FPT530 | 2CPX030827R9999 | |

> Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details

# Enclosures
## Accessories for Multimedia enclosures


2CSC000707F0014

ZX29


2CSC000708F0014

ZE225


2CSC000709F0014

ED57P10


2CSC000710F0014

ED44P10


2CSC000711F0014

ZX287P10

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Cross member** | | | | |
| For double socket | 1 | ZX29 | 2CPX061178R9999 | |
| **Double socket with euro-plug insert** | | | | |
| For supplying 230 V power to power supplies | 1 | ZE225 | 2CPX061177R9999 | |
| **Adapter** | | | | |
| To fasten the ED44P10 wire holder to the perforated sheet steel mounting plate | 10 | ED57P10 | 2CPX061179R9999 | |
| **Wire holder** | | | | |
| 28.5 mm | 10 | ED44P10 | 2CPX062335R9999 | |
| **Screws M4 x14 thread rolling** | | | | |
| For the perforated sheet steel mounting plate | 10 | ZX287P10 | 2CPX061180R9999 | |

# Enclosures
## Doors for UK500


2CSC000712F0014

BL5


2CSC000713F0014

BL528D


2CSC000714F0014

BL521D


2CSC000715F0014

BL527D

| Article | To be used with... | Internal dimensions of the trim cover H x W x D in mm | External dimensions of the trim cover H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **Trim frame with door (complete version)** | | | | | | |
| Colour: white, RAL 9016<br>Sheet steel, powder coated | UK51... | 282 x 297 x 33 | 352 x 367 x 9 | BL510 | 2CPX030853R9999 | |
| | UK52... | 407 x 297 x 33 | 477 x 367 x 9 | BL520 | 2CPX030854R9999 | |
| | UK53... | 532 x 297 x 33 | 602 x 367 x 9 | BL530 | 2CPX030855R9999 | |
| | UK54... | 657 x 297 x 33 | 727 x 367 x 9 | BL540 | 2CPX030856R9999 | |
| **art line** | | | | | | |
| Brushed stainless steel | UK52... | 407 x 297 x 33 | 490 x 407 x 39 | BL528D | 2CPX030918R9999 | |
| | UK53... | 532 x 297 x 33 | 615 x 407 x 39 | BL538D | 2CPX030919R9999 | |
| **addition line** | | | | | | |
| Picture frame door<br>Brushed aluminium | UK52... | 407 x 297 x 27 | 487 x 378 x 26 | BL521D | 2CPX030858R9999 | |
| | UK53... | 532 x 297 x 27 | 612 x 378 x 26 | BL531D | 2CPX030859R9999 | |
| Picture frame door<br>Colour: white, RAL 9016 | UK52... | 407 x 297 x 27 | 487 x 374 x 22 | BL527D | 2CPX030897R9999 | |
| | UK53... | 532 x 297 x 27 | 612 x 374 x 22 | BL537D | 2CPX030898R9999 | |

> Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details

# Enclosures
## Doors for UK500


2CSC000716F0014

**BL516C**


2CSC000717F0014

**BL517C**


2CSC000718F0014

**BL518C**


2CSC000719F0014

**BL510K**


2CSC000720F0014

**BL530L**

| Article | To be used with... | Internal dimensions of the trim cover H x W x D in mm | External dimensions of the trim cover H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **color line** | | | | | | |
| Trim frame with door<br>Colour: anthracite RAL 7016 | UK51... | 282 x 297 x 33 | 352 x 367 x 9 | BL516C | 2CPX031251R9999 | |
| | UK52... | 407 x 297 x 33 | 477 x 367 x 9 | BL526C | 2CPX031252R9999 | |
| | UK53... | 532 x 297 x 33 | 602 x 367 x 9 | BL536C | 2CPX031253R9999 | |
| | UK54... | 657 x 297 x 33 | 727 x 367 x 9 | BL546C | 2CPX031254R9999 | |
| **vision line** | | | | | | |
| Transparent door | UK51... | 282 x 297 x 33 | 352 x 367 x 9 | BL510K | 2CPX030835R9999 | |
| | UK52... | 407 x 297 x 33 | 477 x 367 x 9 | BL520K | 2CPX030836R9999 | |
| | UK53... | 532 x 297 x 33 | 602 x 367 x 9 | BL530K | 2CPX030837R9999 | |
| | UK54... | 657 x 297 x 33 | 727 x 367 x 9 | BL540K | 2CPX030838R9999 | |
| **media line** | | | | | | |
| Trim frame and door with ventilation holes<br>Colour: white, RAL 9016<br>Sheet steel, powder-coated | UZM530MV | 532 x 297 x 33 | 602 x 367 x 9 | BL530L | 2CPX030990R9999 | |
| | UZM540MV | 657 x 297 x 33 | 727 x 367 x 9 | BL540L | 2CPX030991R9999 | |

Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical distribution in buildings - Technical details

# Enclosures
## Accessories for Consumer units UK500


2CSC000721F0014

UZ7


2CSC000722F0014

UZM5


2CSC000723F0014

UZ4P2


2CSC000724F0014

UZ530G


2CSC000725F0014

UZ510A


2CSC000726F0014

UZ90P4


2CSC000727F0014

AP5


2CSC000728F0014

ZK502


2CSC000729F0014

ZK505


2CSC000730F0014

ZK506


2CSC000731F0014

ZK507


2CSC000732F0014

ZA120

| Article | Pcs | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Door hinge set**<br>UK500 | 1 | UZ7 | 2CPX030917R9999 | |
| **Wall box with wall grips** | | | | |
| To be used with UK51... | 1 | UZM510 | 2CPX030805R9999 | |
| To be used with UK52... | 1 | UZM520 | 2CPX030806R9999 | |
| To be used with UK53... | 1 | UZM530 | 2CPX030807R9999 | |
| To be used with UK54... | 1 | UZM540 | 2CPX030808R9999 | |
| **Wall grips** | | | | |
| To fix the wall box in two mounting depths | 4 | UZ4P2 | 2CPX062447R9999 | |
| **DIN-Rail with device support** | | | | |
| To be used with UK51... | 1 | UZ510G | 2CPX030841R9999 | |
| To be used with UK52... | 1 | UZ520G | 2CPX030842R9999 | |
| To be used with UK53... | 1 | UZ530G | 2CPX030843R9999 | |
| To be used with UK54... | 1 | UZ540G | 2CPX030844R9999 | |
| **Cover with 90° quick-action screws** | | | | |
| To be used with UK51... | 1 | UZ510A | 2CPX030845R9999 | |
| To be used with UK52... | 1 | UZ520A | 2CPX030846R9999 | |
| To be used with UK53... | 1 | UZ530A | 2CPX030847R9999 | |
| To be used with UK54... | 1 | UZ540A | 2CPX030848R9999 | |
| **Hollow-wall mounting set** | | | | |
| To modify the flush-mounting consumer unit into a hollow-wall consumer unit UK500 (type label and 20 cable ties included) wall thickness<br>min. 8 mm, max. 35 mm | 1 | UZ90P4 | 2CPX062563R9999 | |
| **On wall mounting set** | | | | |
| For wall mounting or partially recessed installation | | | | |
| To be used with UK51... | 1 | AP510 | 2CPX030849R9999 | |
| To be used with UK52... | 1 | AP520 | 2CPX030850R9999 | |
| To be used with UK53... | 1 | AP530 | 2CPX030851R9999 | |
| To be used with UK54... | 1 | AP540 | 2CPX030852R9999 | |
| **NP/E terminals** | | | | |
| 3 x 16 $mm^2$ + 14 x 4 $mm^2$, Cu screwable (each) | 1 | ZK502 | 2CPX030887R9999 | |
| **N terminals** | | | | |
| 5 x 16 $mm^2$ + 19 x 10 $mm^2$, Cu screwable | 1 | ZK505 | 2CPX030890R9999 | |
| **NP terminals** | | | | |
| 5 x 16 $mm^2$ + 19 x 10 $mm^2$, Cu screwable | 1 | ZK506 | 2CPX030891R9999 | |
| **N-RCD-busbar** | | | | |
| 3 x 16 $mm^2$ + 2 x 10 $mm^2$ Cu screwable | 1 | ZK507 | 2CPX030892R9999 | |
| **Touch-up applicator** | | | | |
| Colour RAL 9016, 12 ml | 1 | ZA120 | 2CPX039043R9999 | |

# Enclosures
## Accessories for Consumer units UK500


2CSC000735F0014

UZ3


2CSC000734F0014

ZA89P20


2CSC000735F0014

UZ510M


2CSC000736F0014

UZ530L


2CSC000737F0014

UZ2


2CSC000738F0014

UZ1


2CSC000739F0014

ZA3P5


2CSC000740F0014

UZ5


2CSC000741F0014

UZ52


2CSC000742F0014

UZ84

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Labelling system** | | | | |
| Self-adhesive, for identifying circuits, 17.5 mm | 1 | UZ3 | 2CPX030882R9999 | |
| **Screws** | | | | |
| 20 pcs. for fixing DIN-Rails and mounting plates | 1 | ZA89P20 | 2CPX062376R9999 | |
| **Mounting plate, sheet steel, galvanized**<br>H x W in mm | | | | |
| 130 x 255 to be used with UK510S | 1 | UZ510M | 2CPX030872R9999 | |
| 255 x 255 to be used with UK520S | 1 | UZ520M | 2CPX030873R9999 | |
| 380 x 255 to be used with UK530S | 1 | UZ530M | 2CPX030874R9999 | |
| 505 x 255 UK540S | 1 | UZ540M | 2CPX030875R9999 | |
| **Perforated mounting plate for multimedia enclosures**<br>H x W in mm | | | | |
| 447 x 227 UZM530MV | 1 | UZ530L | 2CPX030992R9999 | |
| 572 x 227 to be used with UZM540MV | 1 | UZ540L | 2CPX030993R9999 | |
| **TIP-in-closure** | | | | |
| Colour: white | 1 | UZ2 | 2CPX030885R9999 | |
| **Closure with lock** | | | | |
| With 2 keys | 1 | UZ1 | 2CPX030870R9999 | |
| **Slot cover, 5 pcs.** | | | | |
| Colour: white, RAL 9016 | 5 | ZA3P5 | 2CPX062385R9999 | |
| **Cable inlet for wall box** | | | | |
| Top or bottom, 1 to 4 rows | 1 | UZ5 | 2CPX030871R9999 | |
| **Vertical partition** | | | | |
| 1-row | 1 | UZ51 | 2CPX030878R9999 | |
| 2-row | 1 | UZ52 | 2CPX030879R9999 | |
| 3-row | 1 | UZ53 | 2CPX030880R9999 | |
| 4-row | 1 | UZ54 | 2CPX030881R9999 | |
| **Horizontal partition** | | | | |
| | 1 | UZ84 | 2CPX030877R9999 | |

# System pro *E* comfort MISTRAL41. Create your own masterpiece.

Freedom is an essential factor for innovation, modernization and unlimited possibilities. The new System pro *E* comfort MISTRAL41 series of consumer units offer that freedom in both flush and wall-mounted versions. These IP41-rated units have been designed from scratch to enhance the unique features you expect from ABB. Ample internal space, elegant design and a unified range of accessories give you the freedom and flexibility to create high-quality work you can be proud of. For more information visit **www.abb.com/lowvoltage**





# System pro *E* comfort MISTRAL41W
## Endless installation possibilities

Door opens up to 180° allowing full access to the interior of the unit

The symmetrical design allows opening of the reversible door either from the left or from the right



Door available in two versions: petrol blue and opaque. Units without doors are also available

Concealed rear mounts for secure wall installation



### Invisible cable entry and exit

Pre-cut knockout slots allow cable entry and exit from the top and bottom. When not used, the slots remain invisible on the outside maintaining the consumer unit's sleek look and feel.



### More than enough internal space

Lots of internal space makes cabling even easier. Cable clips and holes allow wires to be fastened to the frame with simple cable ties.



### Easy installation of extra modules

An extra module can be added by removing two pre-cut elements. This offers a quick and easy solution when unexpected additional installation is required (on the 12, 24, 26 and 48 modules sizes).



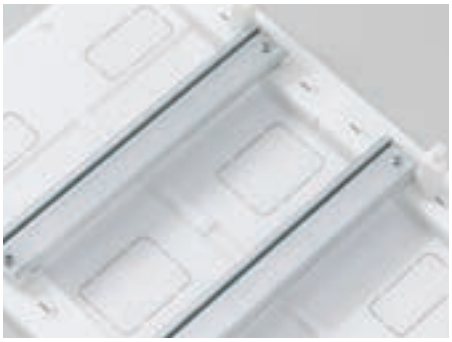
### Fast and tidy cabling

Various snap-on terminal blocks for N and PE connection be installed in the upper and lower part of the unit. Two versions offer screw or spring couplings.



### Double insulation protection

The unit housing and all accessories have been designed and developed to ensure Class II double insulation protection.



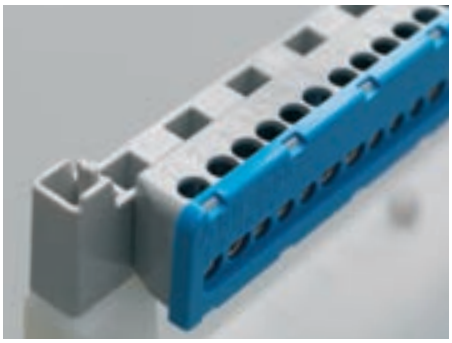
### Multi-row units

Multi-row units are available with a standard distance of 125 mm between DIN-Rails.



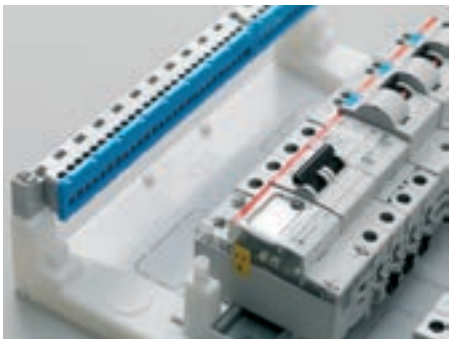
### Optional door lock

The standard door with ergonomic handle is available with a lock for added security.



### New generation terminals

The new System pro *E* comfort MISTRAL® range of consumer units is enhanced with a wide, completely new ABB terminal blocks, available in different colours and two different connection options: screw and spring fast coupling.



### A unified range of products

The System pro *E* comfort MISTRAL41W series is compatible with a unified range of ABB products. As a result, terminal blocks, circuit breakers, switches, surge protective devices and many other components can all be installed in the units for a wide variety of applications.

# Enclosures
## System pro *E* comfort MISTRAL41W 650




2 modules







4 modules







8 modules







12 modules







18 modules







24 modules







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **1 Row** | | | | | | |
| Consumer units MISTRAL41 wall without door 2M | 650 | 2 | 64x223x95 | 1SPE007717F0100 | | 1/36 |
| Consumer units MISTRAL41 wall without door 4M | 650 | 4 | 100x223x95 | 1SPE007717F0200 | | 1/24 |
| Consumer units MISTRAL41 wall opaque door 4M | 650 | 4 | 100x223x95 | 1SPE007717F0210 | | 1/24 |
| Consumer units MISTRAL41 wall transparent door 4M | 650 | 4 | 100x223x95 | 1SPE007717F0220 | | 1/24 |
| Consumer units MISTRAL41 wall without door 8M | 650 | 8 | 207x262x119 | 1SPE007717F0300 | | 1/7 |
| Consumer units MISTRAL41 wall opaque door 8M | 650 | 8 | 207x262x119 | 1SPE007717F0310 | | 1/7 |
| Consumer units MISTRAL41 wall transparent door 8M | 650 | 8 | 207x262x119 | 1SPE007717F0320 | | 1/7 |
| Consumer units MISTRAL41 wall without door 12M | 650 | 12 | 297x262x119 | 1SPE007717F0400 | | 1/3 |
| Consumer units MISTRAL41 wall opaque door 12M | 650 | 12 | 297x262x119 | 1SPE007717F0410 | | 1/3 |
| Consumer units MISTRAL41 wall transparent door 12M | 650 | 12 | 297x262x119 | 1SPE007717F0420 | | 1/3 |
| Consumer units MISTRAL41 wall without door 18M | 650 | 18 | 387x262x119 | 1SPE007717F0800 | | 1/3 |
| Consumer units MISTRAL41 wall opaque door 18M | 650 | 18 | 387x262x119 | 1SPE007717F0810 | | 1/3 |
| Consumer units MISTRAL41 wall transparent door 18M | 650 | 18 | 387x262x119 | 1SPE007717F0820 | | 1/3 |
| **2 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 24M | 650 | 24 | 297x387x119 | 1SPE007717F0500 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 24M | 650 | 24 | 297x387x119 | 1SPE007717F0510 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 24M | 650 | 24 | 297x387x119 | 1SPE007717F0520 | | 1/2 |
| Consumer units MISTRAL41 wall without door 36M 2F | 650 | 36 | 387x387x119 | 1SPE007717F0900 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 36M 2F | 650 | 36 | 387x387x119 | 1SPE007717F0910 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 36M 2F | 650 | 36 | 387x387x119 | 1SPE007717F0920 | | 1/2 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

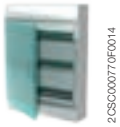






36 modules




54 modules







48 modules







72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **3 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 36M 3F | 650 | 36 | 292x512x119 | 1SPE007717F0600 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 36M 3F | 650 | 36 | 292x512x119 | 1SPE007717F0610 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 36M 3F | 650 | 36 | 292x512x119 | 1SPE007717F0620 | | 1/2 |
| Consumer units MISTRAL41 wall without door 54M | 650 | 54 | 387x512x119 | 1SPE007717F1000 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 54M | 650 | 54 | 387x512x119 | 1SPE007717F1010 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 54M | 650 | 54 | 387x512x119 | 1SPE007717F1020 | | 1/2 |
| **4 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 48M | 650 | 48 | 297x659x119 | 1SPE007717F0700 | | 1/1 |
| Consumer units MISTRAL41 wall opaque door 48M | 650 | 48 | 297x659x119 | 1SPE007717F0710 | | 1/1 |
| Consumer units MISTRAL41 wall transparent door 48M | 650 | 48 | 297x659x119 | 1SPE007717F0720 | | 1/1 |
| Consumer units MISTRAL41 wall without door 72M | 650 | 72 | 387x659x119 | 1SPE007717F1100 | | 1/1 |
| Consumer units MISTRAL41 wall opaque door 72M | 650 | 72 | 387x659x119 | 1SPE007717F1110 | | 1/1 |
| Consumer units MISTRAL41 wall transparent door 72M | 650 | 72 | 387x659x119 | 1SPE007717F1120 | | 1/1 |

# Enclosures
## System pro *E* comfort MISTRAL41W 750




2 modules







4 modules







8 modules







12 modules







18 modules







24 modules







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **1 Row** | | | | | | |
| Consumer units MISTRAL41 wall without door 2M | 750 | 2 | 64x223x96 | 1SPE007717F1500 | | 1/36 |
| Consumer units MISTRAL41 wall without door 4M | 750 | 4 | 100x223x96 | 1SPE007717F1600 | | 1/24 |
| Consumer units MISTRAL41 wall opaque door 4M | 750 | 4 | 100x223x96 | 1SPE007717F1610 | | 1/24 |
| Consumer units MISTRAL41 wall transparent door 4M | 750 | 4 | 100x223x96 | 1SPE007717F1620 | | 1/24 |
| Consumer units MISTRAL41 wall without door 8M | 750 | 8 | 207x262x119 | 1SPE007717F1700 | | 1/7 |
| Consumer units MISTRAL41 wall opaque door 8M | 750 | 8 | 207x262x119 | 1SPE007717F1710 | | 1/7 |
| Consumer units MISTRAL41 wall transparent door 8M | 750 | 8 | 207x262x119 | 1SPE007717F1720 | | 1/7 |
| Consumer units MISTRAL41 wall without door 12M | 750 | 12 | 297x262x119 | 1SPE007717F1800 | | 1/3 |
| Consumer units MISTRAL41 wall opaque door 12M | 750 | 12 | 297x262x119 | 1SPE007717F1810 | | 1/3 |
| Consumer units MISTRAL41 wall transparent door 12M | 750 | 12 | 297x262x119 | 1SPE007717F1820 | | 1/3 |
| Consumer units MISTRAL41 wall without door 18M | 750 | 18 | 387x262x119 | 1SPE007717F2200 | | 1/3 |
| Consumer units MISTRAL41 wall opaque door 18M | 750 | 18 | 387x262x119 | 1SPE007717F2210 | | 1/3 |
| Consumer units MISTRAL41 wall transparent door 18M | 750 | 18 | 387x262x119 | 1SPE007717F2220 | | 1/3 |
| **2 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 24M | 750 | 24 | 297x387x119 | 1SPE007717F1900 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 24M | 750 | 24 | 297x387x119 | 1SPE007717F1910 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 24M | 750 | 24 | 297x387x119 | 1SPE007717F1920 | | 1/2 |
| Consumer units MISTRAL41 wall without door 36M 2F | 750 | 36 | 387x387x119 | 1SPE007717F2300 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 36M 2F | 750 | 36 | 387x387x119 | 1SPE007717F2310 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 36M 2F | 750 | 36 | 387x387x119 | 1SPE007717F2320 | | 1/2 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

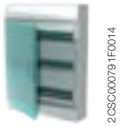






36 modules




54 modules







48 modules







72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **3 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 36M 3F | 750 | 36 | 297x512x119 | 1SPE007717F2000 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 36M 3F | 750 | 36 | 297x512x119 | 1SPE007717F2010 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 36M 3F | 750 | 36 | 297x512x119 | 1SPE007717F2020 | | 1/2 |
| Consumer units MISTRAL41 wall without door 54M | 750 | 54 | 387x512x119 | 1SPE007717F2400 | | 1/2 |
| Consumer units MISTRAL41 wall opaque door 54M | 750 | 54 | 387x512x119 | 1SPE007717F2410 | | 1/2 |
| Consumer units MISTRAL41 wall transparent door 54M | 750 | 54 | 387x512x119 | 1SPE007717F2420 | | 1/2 |
| **4 Rows** | | | | | | |
| Consumer units MISTRAL41 wall without door 48M | 750 | 48 | 297x659x119 | 1SPE007717F2100 | | 1/1 |
| Consumer units MISTRAL41 wall opaque door 48M | 750 | 48 | 297x659x119 | 1SPE007717F2110 | | 1/1 |
| Consumer units MISTRAL41 wall transparent door 48M | 750 | 48 | 297x659x119 | 1SPE007717F2120 | | 1/1 |
| Consumer units MISTRAL41 wall without door 72M | 750 | 72 | 387x659x119 | 1SPE007717F2500 | | 1/1 |
| Consumer units MISTRAL41 wall opaque door 72M | 750 | 72 | 387x659x119 | 1SPE007717F2510 | | 1/1 |
| Consumer units MISTRAL41 wall transparent door 72M | 750 | 72 | 387x659x119 | 1SPE007717F2520 | | 1/1 |

# Enclosures
## System pro *E* comfort MISTRAL41W with terminals


2CSC000796F0014


2CSC000778F0014

**8 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 8M 12SM | 650 | 8 | 202x257x120 | 1SPE007717F0321 | | 1/7 |
| MISTRAL41W 650 opaque door 8M 12SM | 650 | 8 | 202x257x120 | 1SLM004102A3102 | | 1/7 |





2CSC000798F0014


2CSC000780F0014

**12 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 12M 12SM | 650 | 12 | 292x257x120 | 1SPE007717F0421 | | 1/3 |
| MISTRAL41W 650 opaque door 12M 12SM | 650 | 12 | 292x257x120 | 1SLM004102A3103 | | 1/3 |



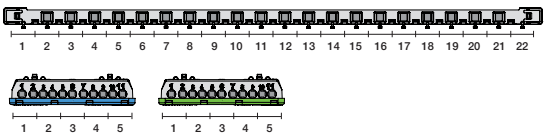


2CSC000800F0014


2CSC000782F0014

**18 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 18M 22SM | 650 | 18 | 382x257x120 | 1SPE007717F0821 | | 1/3 |
| MISTRAL41W 650 opaque door 18M 22SM | 650 | 18 | 382x257x120 | 1SLM004102A3104 | | 1/3 |



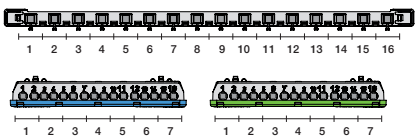


2CSC000802F0014


2CSC000784F0014

**24 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 24M 32SM | 650 | 24 | 292x382x120 | 1SPE007717F0521 | | 1/2 |
| MISTRAL41W 650 opaque door 24M 32SM | 650 | 24 | 292x382x120 | 1SLM004102A3105 | | 1/2 |




14

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

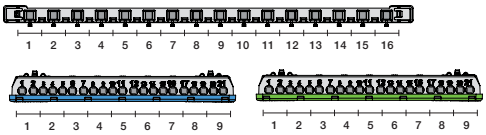






36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 36M 2F 42SM | 650 | 36 | 382x382x120 | 1SPE007717F0921 | | 1/2 |
| MISTRAL41W 650 opaque door 36M2F 42SM | 650 | 36 | 382x382x120 | 1SLM004102A3106 | | 1/2 |



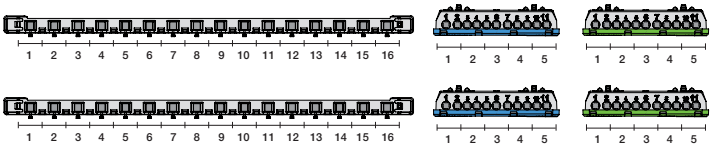







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 36M 3F 44SM | 650 | 36 | 292x507x120 | 1SPE007717F0621 | | 1/2 |
| MISTRAL41W 650 opaque door 36M3F 44SM | 650 | 36 | 292x507x120 | 1SLM004102A3107 | | 1/2 |



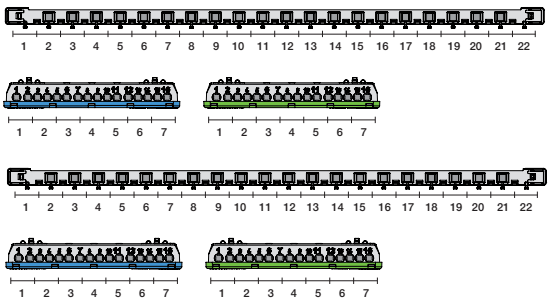







54 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 54M 64SM | 650 | 54 | 382x507x120 | 1SPE007717F1021 | | 1/2 |
| MISTRAL41W 650 opaque door 54M 64SM | 650 | 54 | 382x507x120 | 1SLM004102A3109 | | 1/2 |



# Enclosures
## System pro *E* comfort MISTRAL41W with terminals

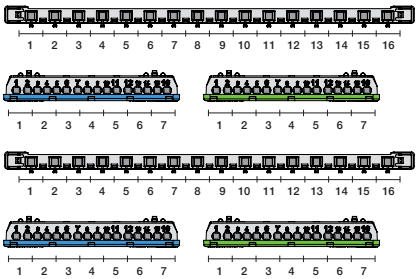






**48 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 48M 64SM | 650 | 48 | 292x656x120 | 1SPE007717F0721 | | 1/1 |
| MISTRAL41W 650 opaque door 48M 64SM | 650 | 48 | 292x656x120 | 1SLM004102A3108 | | 1/1 |



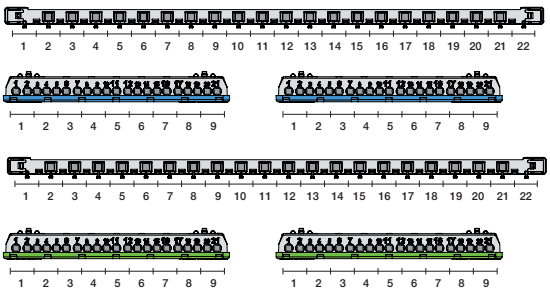







**72 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL41W transparent door 72M 84SM | 650 | 72 | 382x656x120 | 1SPE007717F1121 | | 1/1 |
| MISTRAL41W 650 opaque door 72M 84SM | 650 | 72 | 382x656x120 | 1SLM004102A3110 | | 1/1 |






**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Accessories for System pro *E* comfort MISTRAL41W


2CSC000814F0014

Opaque door


2CSC000815F0014

Transparent door


2CSC000816F0014

Lock set


2CSC000817F0014

Label holder


2CSC000818F0014

Partition wall


2CSC000819F0014

MCB cover 12M

| Description | N° of modules [18 mm] | Order code | Price | Packaging |
|---|---|---|---|---|
| **Opaque door** | | | | |
| Opaque door 4M MISTRAL41W | 4 | 1SPE007717F9900 | | 1/24 |
| Opaque door 8M MISTRAL41W | 8 | 1SPE007717F9901 | | 1/14 |
| Opaque door 12M MISTRAL41W | 12 | 1SPE007717F9902 | | 1/14 |
| Opaque door 24/48M MISTRAL41W | 24/48 | 1SPE007717F9903 | | 1/15 |
| Opaque door 36M (3 rows) MISTRAL41W | 36 | 1SPE007717F9904 | | 1/18 |
| Opaque door 18M MISTRAL41W | 18 | 1SPE007717F9905 | | 1/14 |
| Opaque door 36/72M (2 rows) MISTRAL41W | 36/72 | 1SPE007717F9906 | | 1/18 |
| Opaque door 54M MISTRAL41W | 54 | 1SPE007717F9907 | | 1/18 |
| **Transparent door** | | | | |
| Transparent door blue 4M MISTRAL41W | 4 | 1SPE007717F9908 | | 1/24 |
| Transparent door blue 8M MISTRAL41W | 8 | 1SPE007717F9909 | | 1/14 |
| Transparent door blue 12M MISTRAL41W | 12 | 1SPE007717F9910 | | 1/14 |
| Transparent door blue 24/48M MISTRAL41W | 24/48 | 1SPE007717F9911 | | 1/15 |
| Transparent door blue 36M (3 rows) MISTRAL41W | 36 | 1SPE007717F9912 | | 1/18 |
| Transparent door blue 18M MISTRAL41W | 18 | 1SPE007717F9913 | | 1/14 |
| Transparent door blue 36/72M (2 rows) MISTRAL41W | 36/72 | 1SPE007717F9914 | | 1/18 |
| Transparent door blue 54M MISTRAL41W | 54 | 1SPE007717F9915 | | 1/18 |
| **Other accessories** | | | | |
| Lock set white LMW | | 1SPE007715F5009 | | 1 |
| Lock set blue LMB | | 1SPE007715F5010 | | 1 |
| Flange for rigid conduits GWT 650° | | 1SLM004100A1951 | | 1 |
| Label holder 12M MISTRAL41W | 12 | 1SPE007715F5012 | | 5 |
| Label holder 18M MISTRAL41W | 18 | 1SPE007715F5018 | | 5 |
| Partition wall 12M MISTRAL41W | 12 | 1SPE007715F5112 | | 5 |
| Partition wall 18M MISTRAL41W | 18 | 1SPE007715F5118 | | 5 |
| MCB cover 12M GWT 650 MISTRAL41W | 12 | 1SPE007715F5650 | | 5/180 |
| MCB cover 12M GWT 750 MISTRAL41W | 12 | 1SPE007715F5750 | | 5/180 |
| Flange for rigid conduits GWT 750 | | 1SPE007715F5111 | | 1 |

# AT/U Series
## The details make the difference

Compact distribution boards AT/U series: for wall-mounting, flush-mounting and hollow-wall mounting (in connection with ZKV200P4)

Doors are assembled and disassembled without tools, and the door hinges can be adjusted steplessly



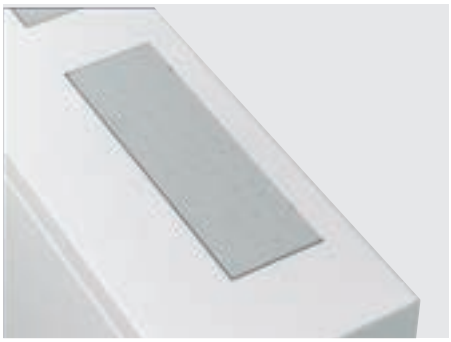
Integrated cable strain-relief, spacious wall mounting

The installed distribution panels can be removed for equipping and wiring

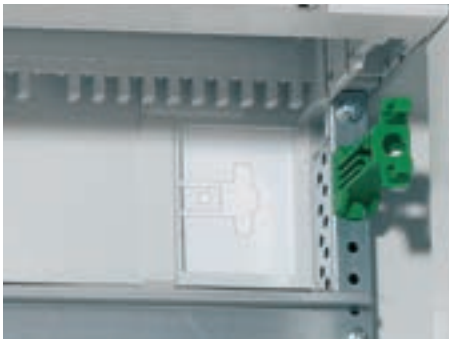
Wide range: with metal or transparent door; Range from 36 up to 240 modules (18 mm)



With its slightly inclined sides, the bright white cabinet and the attractive locking system, the compact distribution boards sets new standards in design.



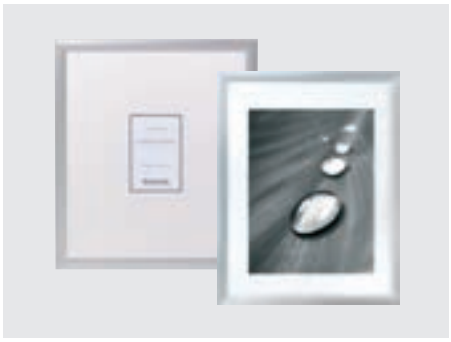
All AT wall-mounting compact distribution boards are equipped with one integrated flush fitting membrane flange per panel width on top.



A further standard feature per panel width is the cable strain-relief at the top and the bottom, which considerably simplifies the installation for every wall-mounting and flush-mounting type.



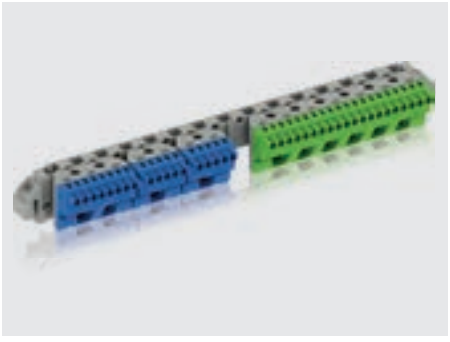
All flush-mounting compact distribution boards can be installed in the hollow wall in just a few steps using the hollow wall set (accessory). No longer two separate cabinets need to be kept on stock - you only need one cabinet for two applications.



An alternative picture frame door is available for the U flush-mounting version. Control panels for commercial and industrial buildings are also available: they can be supplied to be finished and wired by the user, or can be printed and wired according to the user's requirements already in the factory.



Easy any flexible: AT and U Series offers a wide range for almost all applications: wall-mounting, flush-mounting, with metal, transparent or design door, with mounting plates or with DIN-Rails and many more. And all with one single order number.



AT and U series allows with its user-friendly snap-in type N/PE quick busbars considerable time-saving.



Fast assembly of the sealable covers using 90° press and turn closures, which fit into all modular cabinets.



Prepared for all requirements: An earthing set for conversion to protection class I (earthed) is available as an accessory for AT and for U Series.

# Enclosures
## Compact distribution boards with panels and doors




**Panels and doors**

| Compact distribution boards with panels and doors |
|---|
| **125 mm or 150 mm DIN-Rail spacing** |
| $I_n$ up to 125 A |
| DIN EN 61439-1-3 (VDE 0660-500) |
| Degree of protection IP43 (AT) |
| Degree of protection IP31 (U) |
| Protection class II, double insulated |
| Protection class I, earthed in connection with an earthing set (accessory) |
| The installed distribution board panels can be removed for equipping and wiring |
| The covers of U and AT compact distribution boards are made of polystyrene |
| Panels for DIN-Rail devices come with N/PE quick terminals |
| 125 mm or 150 mm DIN-Rail spacing |
| Enclosures and doors made of sheet steel, 1 mm |
| Colour: white, RAL 9016 |
| 3 or more panels wide: double-wing doors |
| **With new N/PE Quick-terminals for panels for rail mounting devices** |
| **Without N/PE Quick-terminals for panels with wiring space or mounting plates** |
| Panels for terminals have DIN-Rails assembled insulated (without N/PE Quick terminals) (K) |
| Panels with mounting plate (without N/PE Quick-terminal) (M) |
| Hollow-wall-mounting set for flush-mounting versions (accessory) |
| With cable strain relief |
| With one membrane flange per panel width on top (AT) |
| With labelling system |
| Trim frame adjusted for uneven surfaces (U) |
| Cable entry covers (accessory) |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Compact distribution boards, new N/PE Quick-terminals




**The new N/PE Quick-terminals**

| Compact distribution boards, IP43 (AT), IP31(U) |
|---|
| $I_n$ up to 125 A |
| DIN EN 61439-1-3 (VDE 0660-500) |
| The installed distribution board panels can be removed for equipping and wiring |
| 125 mm or 150 mm DIN-Rail spacing |
| Enclosures and doors made of sheet steel, 1 mm |
| Colour: white, RAL 9016 |
| 3 or more panels wide: Double-wing doors |
| With new N/PE Quick-terminals for panels for rail mounting devices |
| Without N/PE Quick-terminals for panels with wiring space or mounting plates |
| With cable strain relief |
| With one membrane flange per panel width on top (AT) |
| With labelling system |
| Trim frame adjusted for uneven surfaces (U) |

* In connection with earthing set
*1 In connection with a hollow-wall set ZKV200P4

| Article | Type | Equipment with new N/PE Quick-terminals Compact distribution boards* |
|---|---|---|
| N/PE quick carriers | ZK13 | 1 pc. |
| N Quick terminal | ZK82B | 1 pc. |
| | ZK113B | 1 pc. |
| PE Quick-terminal | ZK175G | 1 pc. |

*Included in the scope of delivery for distribution board panels for rail mounting devices

# Enclosures
## N/PE Quick-terminals accessories


2CSC000852F0014

ZK113B


2CSC000853F0014

ZK50BT


2CSC000854F0014

ZK113G


2CSC000855F0014

ZK10P10


2CSC000856F0014

ZK13


2CSC000857F0014

ZK15


2CSC000658F0014

ZK220


2CSC000659F0014

ZK225

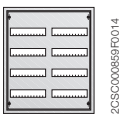
| Article | Number of terminals 1.5 - 4 mm² | Number of terminals 2.5 - 25 mm² | External dimensions H x W x D in mm | Pcs. | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **N Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 0 | 23 x 32 x 21 | 1 | ZK50B | 2CPX062750R9999 | |
| | 5 | 1 | 32 x 32 x 31 | 1 | ZK51B | 2CPX062751R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82B | 2CPX062752R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113B | 2CPX062753R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144B | 2CPX062754R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175B | 2CPX062755R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206B | 2CPX062756R9999 | |
| **N Quick-terminal with adapter ZK15** | | | | | | | |
| For lateral assembly to the UK5… , A3…or for fastening to the DIN-Rail | 5 | 0 | 28 x 39 x 25 | 1 | ZK50BT | 2CPX062745R9999 | |
| **PE Quick-terminals** | | | | | | | |
| For quick carriers | 5 | 1 | 32 x 32 x 31 | 1 | ZK51G | 2CPX062757R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82G | 2CPX062758R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113G | 2CPX062759R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144G | 2CPX062760R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175G | 2CPX062761R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206G | 2CPX062762R9999 | |
| **Connecting bridges** | | | | | | | |
| For Quick-terminals | | | | 10 | ZK10P10 | 2CPX062763R9999 | |
| **Quick carriers** | | | | | | | |
| For consumer units AT/U Usable width for Quick-terminals 214 mm | | | | 1 | ZK13 | 2CPX064982R9999 | |
| **Adapter for ZK50B** | | | | | | | |
| Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5… , A3 or to the DIN-Rail | | | | 1 | ZK15 | 2CPX064984R9999 | |
| **Terminals** | | | | | | | |
| N/PE for AT/U N=14, 10p. PE=22p. | | | | | ZK220 | 2CPX063132R9999 | |
| N/PE for V-Feld N=14, 10p. PE=22p. | | | | | ZK225 | 2CPX063133R9999 | |

# Enclosures

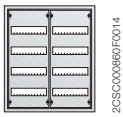
## AT wall-mounting distribution boards with panels and sheet steel doors



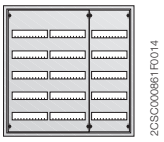

**AT31**



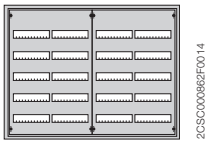

**AT42**




**AT42/2**




**AT53**




**AT54E**

| PW | GU | SU | External dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **For rail mounting devices, 125 mm DIN-Rail spacing, with membran flanges** | | | | | | |
| 1 | 3 | 36 | 524 x 324 x 140 | AT31 | 2CPX030099R9999 | |
| | 4 | 48 | 674 x 324 x 140 | AT41 | 2CPX030121R9999 | |
| | 5 | 60 | 824 x 324 x 140 | AT51 | 2CPX030124R9999 | |
| | 6 | 72 | 974 x 324 x 140 | AT61 | 2CPX030130R9999 | |
| 2 | 2 | 48 | 374 x 574 x 140 | AT22E | 2CPX071740R9999 | |
| | 4 | 96 | 674 x 574 x 140 | AT42 | 2CPX030122R9999 | |
| | 5 | 120 | 824 x 574 x 140 | AT52 | 2CPX030125R9999 | |
| | 6 | 144 | 974 x 574 x 140 | AT62 | 2CPX030131R9999 | |
| | 7 | 168 | 1124 x 574 x 140 | AT72 | 2CPX030134R9999 | |
| 2 (1/1) | 3 | 72 | 524 x 574 x 140 | AT32 | 2CPX030120R9999 | |
| | 4 | 96 | 674 x 574 x 140 | AT42/2 | 2CPX030138R9999 | |
| | 5 | 120 | 824 x 574 x 140 | AT52/2 | 2CPX030139R9999 | |
| 3 (2/1) | 4 | 144 | 674 x 824 x 140 | AT43 | 2CPX030123R9999 | |
| | 5 | 180 | 824 x 824 x 140 | AT53 | 2CPX030127R9999 | |
| | 6 | 216 | 974 x 824 x 140 | AT63E | 2CPX071751R9999 | |
| 4 (2/2) | 5 | 240 | 824 x 1074 x 140 | AT54E | 2CPX071748R9999 | |

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## AT wall-mounting distribution boards with panels and sheet steel doors



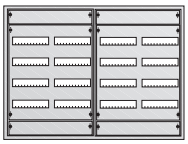

AT41R3




AT42R3




AT53R4




AT54R4



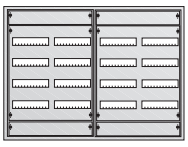

AT41R3IE




AT42R3IE




AT53R4IE



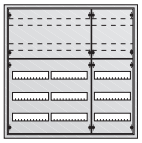

AT54R4IE

| PW | GU | SU | External dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **For rail mounting devices, 150 mm DIN-Rail spacing, with membran flanges** | | | | | | |
| 1 | 3 | 36 | 674 x 324 x 140 | AT41R3 | 2CPX071681R9999 | |
| | 4 | 48 | 824 x 324 x 140 | AT51R4 | 2CPX071684R9999 | |
| | 5 | 60 | 974 x 324 x 140 | AT61R5 | 2CPX071688R9999 | |
| 2 | 2 | 48 | 524 x 574 x 140 | AT32R2 | 2CPX071680R9999 | |
| | 3 | 72 | 674 x 574 x 140 | AT42R3 | 2CPX071682R9999 | |
| | 4 | 96 | 824 x 574 x 140 | AT52R4 | 2CPX071685R9999 | |
| | 5 | 120 | 974 x 574 x 140 | AT62R5 | 2CPX071689R9999 | |
| | 6 | 144 | 1124 x 574 x 140 | AT72R6 | 2CPX071691R9999 | |
| 3 (2/1) | 3 | 108 | 674 x 824 x 140 | AT43R3 | 2CPX071683R9999 | |
| | 4 | 144 | 824 x 824 x 140 | AT53R4 | 2CPX071686R9999 | |
| | 5 | 180 | 974 x 824 x 140 | AT63R5 | 2CPX071690R9999 | |
| | 6 | 216 | 1124 x 824 x 140 | AT73R6 | 2CPX071692R9999 | |
| 4 (2/2) | 4 | 192 | 824 x 1074 x 140 | AT54R4 | 2CPX071687R9999 | |
| **For rail mounting devices, 150 mm DIN-Rail spacing, with sheet steel flange** | | | | | | |
| 1 | 3 | 36 | 674 x 324 x 140 | AT41R3IE | 2CPX071681R9999 | |
| | 4 | 48 | 824 x 324 x 140 | AT51R4IE | 2CPX071684R9999 | |
| | 5 | 60 | 974 x 324 x 140 | AT61R5 | 2CPX071688R9999 | |
| 2 | 2 | 48 | 524 x 574 x 140 | AT32R2IE | 2CPX071680R9999 | |
| | 3 | 72 | 674 x 574 x 140 | AT42R3IE | 2CPX071682R9999 | |
| | 4 | 96 | 824 x 574 x 140 | AT52R4IE | 2CPX071685R9999 | |
| | 5 | 120 | 974 x 574 x 140 | AT62R5IE | 2CPX071689R9999 | |
| | 6 | 144 | 1124 x 574 x 140 | AT72R6IE | 2CPX071691R9999 | |
| 3 (2/1) | 3 | 108 | 674 x 824 x 140 | AT43R3IE | 2CPX071683R9999 | |
| | 4 | 144 | 824 x 824 x 140 | AT53R4IE | 2CPX071686R9999 | |
| | 5 | 180 | 974 x 824 x 140 | AT63R5IE | 2CPX071690R9999 | |
| | 6 | 216 | 1124 x 824 x 140 | AT73R6IE | 2CPX071692R9999 | |
| 4 (2/2) | 4 | 192 | 824 x 1074 x 140 | AT54R4IE | 2CPX071687R9999 | |

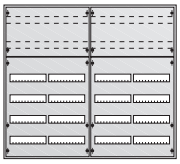
**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details




AT52K




AT53K




AT64K




AT42M




AT53M




AT32EP




AT42EP




AT52EP

| PW | GU | SU | External dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **For rail mounting devices and terminals, DIN-Rail spacing 125 mm** | | | | | | |
| 2 | 5 | 120 | 824 x 574 x 140 | AT52K | 2CPX030126R9999 | |
| | 6 | 144 | 974 x 574 x 140 | AT62K | 2CPX030132R9999 | |
| | 7 | 168 | 1124 x 574 x 140 | AT72K | 2CPX030135R9999 | |
| 3 (2/1) | 5 | 180 | 824 x 824 x 140 | AT53K | 2CPX030128R9999 | |
| | 6 | 216 | 974 x 824 x 140 | AT63K | 2CPX030133R9999 | |
| | 7 | 252 | 1124 x 824 x 140 | AT73K | 2CPX030136R9999 | |
| 4 (2/2) | 5 | 240 | 824 x 1074 x 140 | AT54K | 2CPX030129R9999 | |
| | 6 | 288 | 974 x 1074 x 140 | AT64K | 2CPX030137R9999 | |
| **For rail mounting devices and mounting plates, DIN-Rail spacing 125 mm** | | | | | | |
| 2 (1/1) | 4 | 96 | 674 x 574 x 140 | AT42M | 2CPX030148R9999 | |
| 3 (2/1) | 5 | 180 | 824 x 824 x 140 | AT53M | 2CPX030149R9999 | |
| **For rail mounting devices and meter plates, DIN-Rail spacing 125 mm** | | | | | | |
| 2 (1/1) | 3 | 72 | 524 x 574 x 140 | AT32EP | 2CPX071760R9999 | |
| 2 (1/1) | 4 | 96 | 674 x 574 x 140 | AT42EP | 2CPX071761R9999 | |
| 2 (1/1) | 5 | 120 | 824 x 574 x 140 | AT52EP | 2CPX071762R9999 | |

# Enclosures

## AT wall-mounting distribution boards with panels and transparent doors




AT41TE




AT32TE




AT52TE



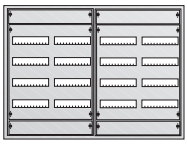

AT41TR3




AT52TR4




AT63TR5




AT54TR4

| PW | GU | SU | External dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **For rail mounting devices, 125 mm DIN-Rail spacing** | | | | | | |
| 1 | 4 | 48 | 674 x 324 x 140 | AT41TE | 2CPX071585R9999 | |
| | 5 | 60 | 824 x 324 x 140 | AT51TE | 2CPX071587R9999 | |
| | 6 | 72 | 974 x 324 x 140 | AT61TE | 2CPX071589R9999 | |
| 2 (1/1) | 3 | 72 | 524 x 574 x 140 | AT32TE | 2CPX071584R9999 | |
| 2 | 4 | 96 | 674 x 574 x 140 | AT42TE | 2CPX071586R9999 | |
| | 5 | 120 | 824 x 574 x 140 | AT52TE | 2CPX071588R9999 | |
| | 6 | 144 | 974 x 574 x 140 | AT62TE | 2CPX071590R9999 | |
| **For rail mounting devices, 150 mm DIN-Rail spacing** | | | | | | |
| 1 | 3 | 36 | 674 x 324 x 140 | AT41TR3 | 2CPX071695R9999 | |
| | 4 | 48 | 824 x 324 x 140 | AT51TR4 | 2CPX071698R9999 | |
| | 5 | 60 | 974 x 324 x 140 | AT61TR5 | 2CPX071702R9999 | |
| 2 | 2 | 48 | 524 x 574 x 140 | AT32TR2 | 2CPX071694R9999 | |
| | 3 | 72 | 674 x 574 x 140 | AT42TR3 | 2CPX071696R9999 | |
| | 4 | 96 | 824 x 574 x 140 | AT52TR4 | 2CPX071699R9999 | |
| | 5 | 120 | 974 x 574 x 140 | AT62TR5 | 2CPX071703R9999 | |
| | 6 | 144 | 1124 x 574 x 140 | AT72TR6 | 2CPX071705R9999 | |
| 3 (2/1) | 3 | 108 | 674 x 824 x 140 | AT43TR3 | 2CPX071697R9999 | |
| | 4 | 144 | 824 x 824 x 140 | AT53TR4 | 2CPX071700R9999 | |
| | 5 | 180 | 974 x 824 x 140 | AT63TR5 | 2CPX071704R9999 | |
| | 6 | 216 | 1124 x 824 x 140 | AT73TR6 | 2CPX071706R9999 | |
| 4 (2/2) | 4 | 192 | 82 x 1074 x 140 | AT54TR4 | 2CPX071701R9999 | |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## Accessories cable entry covers for AT wall-mounting distribution boards






KB19




KB219




KBS9




KBW1

| Article | Order details Type | Order code | Price |
|---|---|---|---|
| **Cable entry covers** | | | |
| With end plates and mounting brackets<br>colour RAL 9016, adjusted to the colour of the cabinets | | | |
| Panel width 1, width = 300 mm | KB19 | 2CPX044049R9999 | |
| Panel width 2, width = 550 mm | KB29 | 2CPX044050R9999 | |
| Panel width 3, width = 800 mm | KB39 | 2CPX044051R9999 | |
| Panel width 4, width = 1050 mm | KB49 | 2CPX044052R9999 | |
| **Profile** | | | |
| Colour RAL 9016, width 2000 mm | KB219 | 2CPX044055R9999 | |
| **End plate left/right** | | | |
| Colour RAL 9016 | KBS9 | 2CPX044057R9999 | |
| Mounting brackets | KBW1 | 2CPX044058R9999 | |

# Enclosures

## U flush-mounting compact distribution boards with panels and sheet steel doors




U41



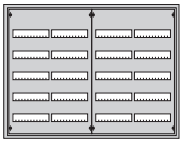

U52




U42/2




U53




U54E



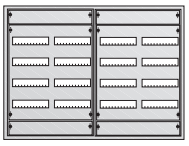

U41R3




U42R3




U53R4

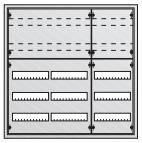



| PW | GU | SU | Wall cut out dimensions H x W x D in mm | Trim frame dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **For rail mounting devices, 125 mm DIN-Rail spacing** | | | | | | | |
| 1 | 4 | 48 | 684 x 310 x 120 | 694 x 354 x 27 | U41 | 2CPX030101R9999 | |
| | 5 | 60 | 834 x 310 x 120 | 844 x 354 x 27 | U51 | 2CPX030104R9999 | |
| | 6 | 72 | 984 x 310 x 120 | 994 x 354 x 27 | U61 | 2CPX030110R9999 | |
| 2 | 4 | 96 | 684 x 560 x 120 | 694 x 604 x 27 | U42 | 2CPX030102R9999 | |
| | 5 | 120 | 834 x 560 x 120 | 844 x 604 x 27 | U52 | 2CPX030105R9999 | |
| | 6 | 144 | 984 x 560 x 120 | 994 x 604 x 27 | U62 | 2CPX030111R9999 | |
| | 7 | 168 | 1134 x 560 x 120 | 1144 x 604 x 27 | U72 | 2CPX030114R9999 | |
| 2 (1/1) | 3 | 72 | 534 x 560 x 120 | 544 x 604 x 27 | U32 | 2CPX030100R9999 | |
| | 4 | 96 | 684 x 560 x 120 | 694 x 604 x 27 | U42/2 | 2CPX030118R9999 | |
| | 5 | 120 | 834 x 560 x 120 | 844 x 604 x 27 | U52/2 | 2CPX030119R9999 | |
| 3 (2/1) | 4 | 144 | 684 x 810 x 120 | 694 x 854 x 27 | U43 | 2CPX030103R9999 | |
| | 5 | 180 | 834 x 810 x 120 | 844 x 854 x 27 | U53 | 2CPX030107R9999 | |
| | 6 | 216 | 984 x 810 x 120 | 994 x 854 x 27 | U63E | 2CPX071787R9999 | |
| 4 (2/2) | 5 | 240 | 834 x 1060 x 120 | 844 x 1104 x 27 | U54E | 2CPX071784R9999 | |
| **For rail mounting devices, 150 mm DIN-Rail spacing** | | | | | | | |
| 1 | 3 | 36 | 684 x 310 x 120 | 694 x 354 x 27 | U41R3 | 2CPX071708R9999 | |
| | 4 | 48 | 834 x 310 x 120 | 844 x 354 x 27 | U51R4 | 2CPX071711R9999 | |
| | 5 | 60 | 984 x 310 x 120 | 994 x 354 x 27 | U61R5 | 2CPX071715R9999 | |
| 2 | 2 | 48 | 534 x 560 x 120 | 544 x 604 x 27 | U32R2 | 2CPX071707R9999 | |
| | 3 | 72 | 684 x 560 x 120 | 694 x 604 x 27 | U42R3 | 2CPX071709R9999 | |
| | 4 | 96 | 834 x 560 x 120 | 844 x 604 x 27 | U52R4 | 2CPX071712R9999 | |
| | 5 | 120 | 984 x 560 x 120 | 994 x 604 x 27 | U62R5 | 2CPX071716R9999 | |
| | 6 | 144 | 1134 x 560 x 120 | 1144 x 604 x 27 | U72R6 | 2CPX071718R9999 | |
| 3 (2/1) | 3 | 108 | 684 x 810 x 120 | 694 x 854 x 27 | U43R3 | 2CPX071710R9999 | |
| | 4 | 144 | 834 x 810 x 120 | 844 x 854 x 27 | U53R4 | 2CPX071713R9999 | |
| | 5 | 180 | 984 x 810 x 120 | 994 x 854 x 27 | U63R5 | 2CPX071717R9999 | |
| | 6 | 216 | 1134 x 810 x 120 | 1144 x 854 x 27 | U73R6 | 2CPX071719R9999 | |
| 4 (2/2) | 4 | 192 | 834 x 1060 x 120 | 844 x 1104 x 27 | U54R4 | 2CPX071714R9999 | |

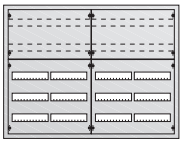
**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details




U52K



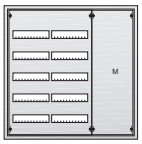

U53K




U54K




U42M




U53M




U51EP




U32EP




U42EP




| PW | GU | SU | Wall cut out dimensions H x W x D in mm | Trim frame dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **For rail mounting devices and terminals, DIN-Rail spacing 125 mm** | | | | | | | |
| 2 | 5 | 120 | 834 x 560 x 120 | 844 x 604 x 27 | U52K | 2CPX030106R9999 | |
| | 6 | 144 | 984 x 560 x 120 | 994 x 604 x 27 | U62K | 2CPX030112R9999 | |
| | 7 | 168 | 1134 x 560 x 120 | 1144 x 604 x 27 | U72K | 2CPX030115R9999 | |
| 3 (2/1) | 5 | 180 | 834 x 810 x 120 | 844 x 854 x 27 | U53K | 2CPX030108R9999 | |
| | 6 | 216 | 984 x 810 x 120 | 994 x 854 x 27 | U63K | 2CPX030113R9999 | |
| | 7 | 252 | 1134 x 810 x 120 | 1144 x 854 x 27 | U73K | 2CPX030116R9999 | |
| 4 (2/2) | 5 | 240 | 834 x 1060 x 120 | 844 x 1104 x 27 | U54K | 2CPX030109R9999 | |
| | 6 | 288 | 984 x 1060 x 120 | 994 x 1104 x 27 | U64K | 2CPX030117R9999 | |
| **For rail mounting devices and mounting plates, 125 mm DIN-Rail spacing** | | | | | | | |
| 2 (1/1) | 4 | 96 | 684 x 560 x 120 | 694 x 604 x 27 | U42M | 2CPX030146R9999 | |
| 3 (2/1) | 5 | 180 | 834 x 810 x 120 | 844 x 854 x 27 | U53M | 2CPX030147R9999 | |
| **For rail mounting devices and meter plates, DIN-Rail spacing 125 mm** | | | | | | | |
| 1 | 5 | 60 | 834 x 310 x 120 | 844 x 354 x 27 | U51EP | 2CPX071564R9999 | |
| 2 (1/1) | 3 | 72 | 534 x 560 x 120 | 544 x 604 x 27 | U32EP | 2CPX071560R9999 | |
| 2 (1/1) | 4 | 96 | 684 x 560 x 120 | 694 x 604 x 27 | U42EP | 2CPX071561R9999 | |
| 2 (1/1) | 5 | 120 | 834 x 560 x 120 | 844 x 604 x 27 | U52EP | 2CPX071562R9999 | |

# Enclosures

## U flush-mounting compact distribution boards with panels and transparent doors




U41TE




U32TE




U42TE



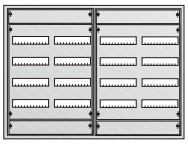

U41TR3




U42TR3




AT53TR4




U54TR4

| PW | GU | SU | Wall cut out dimensions H x W x D in mm | Trim frame dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **For rail mounting devices, 125 mm DIN-Rail spacing** | | | | | | | |
| 1 | 4 | 48 | 684 x 310 x 120 | 694 x 354 x 27 | U41TE | 2CPX071592R9999 | |
| | 5 | 60 | 834 x 310 x 120 | 844 x 354 x 27 | U51TE | 2CPX071594R9999 | |
| | 6 | 72 | 984 x 310 x 120 | 994 x 354 x 27 | U61TE | 2CPX071596R9999 | |
| 2 (1/1) | 3 | 72 | 534 x 560 x 120 | 544 x 604 x 27 | U32TE | 2CPX071591R9999 | |
| 2 | 4 | 96 | 684 x 560 x 120 | 694 x 604 x 27 | U42TE | 2CPX071593R9999 | |
| | 5 | 120 | 834 x 560 x 120 | 844 x 604 x 27 | U52TE | 2CPX071595R9999 | |
| | 6 | 144 | 984 x 560 x 120 | 994 x 604 x 27 | U62TE | 2CPX071597R9999 | |
| **For rail mounting devices, 150 mm DIN-Rail spacing** | | | | | | | |
| 1 | 3 | 36 | 684 x 310 x 120 | 694 x 354 x 27 | U41TR3 | 2CPX071722R9999 | |
| | 4 | 48 | 834 x 310 x 120 | 844 x 354 x 27 | U51TR4 | 2CPX071725R9999 | |
| | 5 | 60 | 984 x 310 x 120 | 994 x 354 x 27 | U61TR5 | 2CPX071729R9999 | |
| 2 | 2 | 48 | 534 x 560 x 120 | 544 x 604 x 27 | U32TR2 | 2CPX071721R9999 | |
| | 3 | 72 | 684 x 560 x 120 | 694 x 604 x 27 | U42TR3 | 2CPX071723R9999 | |
| | 4 | 96 | 834 x 560 x 120 | 844 x 604 x 27 | U52TR4 | 2CPX071726R9999 | |
| | 5 | 120 | 984 x 560 x 120 | 994 x 604 x 27 | U62TR5 | 2CPX071730R9999 | |
| | 6 | 144 | 1134 x 560 x 120 | 1144 x 604 x 27 | U72TR6 | 2CPX071733R9999 | |
| 3 (2/1) | 3 | 108 | 684 x 810 x 120 | 694 x 854 x 27 | U43TR3 | 2CPX071724R9999 | |
| | 4 | 144 | 834 x 810 x 120 | 844 x 854 x 27 | U53TR4 | 2CPX071727R9999 | |
| | 5 | 180 | 984 x 810 x 120 | 994 x 854 x 27 | U63TR5 | 2CPX071731R9999 | |
| | 6 | 216 | 1134 x 810 x 120 | 1144 x 854 x 27 | U73TR6 | 2CPX071734R9999 | |
| 4 (2/2) | 4 | 192 | 834 x 1060 x 120 | 844 x 1104 x 27 | U54TR4 | 2CPX071728R9999 | |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## U flush-mounting compact distribution boards with panels and picture frame doors



2CSC000915F0014

U42D



2CSC000916F0014

U42FPT

| PW | GU | SU | Wall cut out dimensions H x W x D in mm | Trim frame dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **With picture frame door, aluminium anodized, DIN-Rail spacing 125 mm** | | | | | | | |
| 2 | 4 | 96 | 684 x 560 x 120 | 716 x 625 x 25 | U42D | 2CPX038152R9999 | |
| **With control panel, unprinted and not wired, distribution board panel without cover and N/PE rail** | | | | | | | |
| 2 | 4 | 96 | 684 x 560 x 120 | 716 x 625 x 25 | U42FPT | 2CPX038151R9999 | |



Example picture frame door with decoration picture (delivery without picture)



Example control panel with layout and control lights (delivery unprinted/not wired)

# Enclosures
## Accessories for AT/U Series



- Media panels with perforated sheet steel mounting plate without cover
- With fitted DIN-Rail
- Wire holders supplied
- Quick mounting of devices without drilling











ZE225




ZX29




ED44P10




ED57P10




ZX287P10

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Media panel with perforated sheet steel mounting plate** | | | | |
| Overall height 3 GU | 1 | 1MM00A | 2CPX030982R9999 | |
| Overall height 4 GU | 1 | 1MM0A | 2CPX030987R9999 | |
| Overall height 5 GU | 1 | 1MM1A | 2CPX030988R9999 | |
| Overall height 6 GU | 1 | 1MM2A | 2CPX030989R9999 | |
| **Double socket with Euro plug insert** | | | | |
| For supplying 230 V power to power supplies | 1 | ZE225 | 2CPX061177R9999 | |
| Mounting cross member | | | | |
| For double socket (ZE225) | 1 | ZX29 | 2CPX061178R9999 | |
| **Wire holder** | | | | |
| 28.5 mm | 10 | ED44P10 | 2CPX062335R9999 | |
| **Adapter** | | | | |
| For assembling ED44P10 wire holders on the perforated sheet steel mounting plate | 10 | ED57P10 | 2CPX061179R9999 | |
| **Screws** | | | | |
| M4 x 14 thread rolling for the perforated sheet steel mounting plate | 10 | ZX287P10 | 2CPX061180R9999 | |




ZB113




ZB111




ZX456




ZX440




ZH800




ZH220




ZH130




ZH132




ZH134




ZH137

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Standard closure** | | | | |
| Included in the scope of delivery | 1 | ZB113 | 2CPX038478R9999 | |
| **Closure with lock** | | | | |
| With 2 keys | 1 | ZB111 | 2CPX038479R9999 | |
| **Espagnolette closure** | | | | |
| In combination with standard closure ZB113* (earthing partl) or closure with lock ZB111 | | | | |
| Overall height 4 GU | 1 | ZX456 | 2CPX039586R9999 | |
| Overall height 5 GU | 1 | ZX457 | 2CPX039587R9999 | |
| Overall height 6 GU | 1 | ZX458 | 2CPX039588R9999 | |
| Overall height 7 GU | 1 | ZX459 | 2CPX039589R9999 | |
| **Espagnolette closure** | | | | |
| In combination with ZH203, ZH220, ZH221, ZH222, ZH227, ZH228 | | | | |
| Overall height 4 GU | 1 | ZX440 | 2CPX039570R9999 | |
| Overall height 5 GU | 1 | ZX441 | 2CPX039571R9999 | |
| Overall height 6 GU | 1 | ZX442 | 2CPX039572R9999 | |
| Overall height 7 GU | 1 | ZX443 | 2CPX039573R9999 | |
| **Installation set*** | | | | |
| Of different closure systems in combination with ZH220/ZH221/ZH222 | 1 | ZH800 | 2CPX038544R9999 | |
| **Latch plate** | | | | |
| Double bit operating pin, 3 mm standard and 5 mm (ZH800 must be ordered separately) | 1 | ZH220 | 2CPX045700R9999 | |
| For triangular or square operating pins and for Daimler-Benz insert (ZH800 must be ordered separately) | 1 | ZH221 | 2CPX045701R9999 | |
| For T-handle or latch handle (ZH800 must be ordered separately) | 1 | ZH222 | 2CPX045702R9999 | |
| **Operating pin** | | | | |
| Double-bit 3 mm | 1 | ZH130 | 2CPX060490R9999 | |
| Double-bit 5 mm | 1 | ZH131 | 2CPX060491R9999 | |
| Triangular 7 mm | 1 | ZH132 | 2CPX060492R9999 | |
| Triangular 8 mm | 1 | ZH133 | 2CPX060493R9999 | |
| Square 6 mm | 1 | ZH134 | 2CPX060494R9999 | |
| Square 7 mm | 1 | ZH135 | 2CPX060495R9999 | |
| Square 8 mm | 1 | ZH136 | 2CPX060496R9999 | |
| Daimler-Benz insert | 1 | ZH137 | 2CPX060497R9999 | |

* Leave not less than 2 SU for DIN-Rail devices behind the closure

# Enclosures
## Accessories


2CSC000938F0014

ZH157


2CSC000939F0014

ZH91


2CSC000940F0014

ZH138


2CSC000941F0014

ZH139


2CSC000942F0014

ZH140


2CSC000943F0014

ZH141


2CSC000944F0014

ZH228


2CSC000945F0014

ZH227


2CSC000946F0014

ZH203


2CSC000947F0014

ZH142

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Operating keys** | | | | |
| Triangular 7 mm | 1 | ZH157 | 2CPX060657R9999 | |
| Triangular 8 mm | 1 | ZH158 | 2CPX060658R9999 | |
| Double-bit 3 mm | 1 | ZH160 | 2CPX060660R9999 | |
| Double-bit 5 mm | 1 | ZH161 | 2CPX060661R9999 | |
| Square 6 mm | 1 | ZH162 | 2CPX060662R9999 | |
| Square 7 mm | 1 | ZH163 | 2CPX060663R9999 | |
| Square 8 mm | 1 | ZH164 | 2CPX060664R9999 | |
| Daimler-Benz insert | 1 | ZH165 | 2CPX060665R9999 | |
| **Universal key** | | | | |
| Double bit 3 and 5 mm<br>Triangular 8 mm<br>Square 6 and 8 mm | 1 | ZH91 | 2CPX066091R9999 | |
| **T-handle*** | | | | |
| Without lock | 1 | ZH138 | 2CPX060498R9999 | |
| With lock | 1 | ZH139 | 2CPX060498R9999 | |
| **Latch handle*** | | | | |
| Without lock | 1 | ZH140 | 2CPX060500R9999 | |
| With lock | 1 | ZH141 | 2CPX060501R9999 | |
| **Swivel handle with lead sealable cap*** | | | | |
| For semi-cylinder 40 mm (30/10) | 1 | ZH228 | 2CPX045709R9999 | |
| **Swivel handle with lead sealable cap*** | | | | |
| With cabinet handle Berlin | 1 | ZH227 | 2CPX045708R9999 | |
| **Swivel handle with lead sealable cap*** | | | | |
| With closure E0 12 | 1 | ZH203 | 2CPX045707R9999 | |
| **Dummy insert** | | | | |
| Instead of a semi-cylinder for the swivel handle ZH228 | 1 | ZH142 | 2CPX060502R9999 | |

* Leave not less than 2 SU for DIN-Rail devices behind the closure


2CSC000948R0014

ZKV200P4


2CSC000949F0014

ZE11


2CSC000950F0014

ZE12


2CSC000951F0014

ZB43


2CSC000952F0014

ZB40


2CSC000953F0014

ZB101


2CSC000954F0014

ZX69


2CSC000955F0014

ZA1P5


2CSC000956F0014

ZA6


2CSC000957F0014

ZA5


2CSC000958F0014

ZX139LR

| Article | Pcs. | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Hollow-wall-mounting set** | 1 | ZB19 | 2CPX038187R9999 | |
| For retrofitting flush-mounted distribution boards | | | | |
| Wall thickness: min. 14 mm, max. 58 mm | | | | |
| **Earthing set for wall-mounting compact distribution boards** | | | | |
| For conversion into protection class 1 | 1 | ZE11 | 2CPX038143R9999 | |
| **Earthing set for flush-mounting compact distribution boards** | | | | |
| For conversion into protection class 1 | 1 | ZE12 | 2CPX038144R9999 | |
| **Membrane flange** | | | | |
| For inserting the cable from below | 1 | ZB43 | 2CPX038183R9999 | |
| Nipple Flange | 1 | ZB40 | 2CPX038195R9999 | |
| Closing Flange | 1 | ZB101 | 2CPX038181R9999 | |
| Flange for conduits (bottom) | 1 | ZB107E | 2CPX071211R9999 | |
| Flange for conduits (top) | 1 | ZB108E | 2CPX071212R9999 | |
| **Vertical partitions** | | | | |
| Between distribution board panels, not arc-resistant | | | | |
| Overall height 3 GU | 1 | ZX69 | 2CPX039069R9999 | |
| Overall height 4 GU | 1 | ZX70 | 2CPX039070R9999 | |
| Overall height 5 GU | 1 | ZX71 | 2CPX039071R9999 | |
| Overall height 6 GU | 1 | ZX72 | 2CPX039072R9999 | |
| Overall height 7 GU | 1 | ZX73 | 2CPX039073R9999 | |
| **Slot cover** | | | | |
| Colour RAL 7035 | 5 | ZA1P5 | 2CPX062384R9999 | |
| For 12 space units, break-off type | 50 | ZA1P50 | 2CPX062378R9999 | |
| **Document holder DIN A4** | | | | |
| Self-adhesive with transparent sleeve | 1 | ZA6 | 2CPX038227R9999 | |
| | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| **Document holder DIN A4** | | | | |
| Self-adhesive | 1 | ZA13 | 2CPX038233R9999 | |
| | 10 | ZA13P10 | 2CPX062381R9999 | |
| **Document holder DIN A5** | | | | |
| Self-adhesive | 1 | ZA5 | 2CPX038228R9999 | |
| | 10 | ZA5P10 | 2CPX062382R9999 | |
| Door hinge (plastic) | 2 | ZX139LR | 2CPX039139R9999 | |

# Enclosures
## Accessories


2CSC000959F0014

ZX464


2CSC000960F0014

ZX374


2CSC000961F0014

ZH411


2CSC000962F0014

ZH412


2CSC000963F0014

ZH425


2CSC000964F0014

ZH428


2CSC000965F0014

ZX371


2CSC000966F0014

ZK90P2


2CSC000967F0014

ZX21


2CSC000968F0014

ZB32P20

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Door bolt for double-wing doors** | | | | |
| For cabinets with three or more panel widths | 1 | ZX464 | 2CPX039596R9999 | |
| **Cross member** | | | | |
| For fuse switch disconnectors size 00, 1 panel wide | 1 | ZX374 | 2CPX068079R9999 | |
| **Fuse switch disconnector** | | | | |
| Size 00 160 A (without trim cover) | | | | |
| With M8 screw connection | 1 | ZH411 | 2CPX062947R9999 | |
| With clip terminal up to 50 mm2 | 1 | ZH412 | 2CPX062948R9999 | |
| **Trim cover** | | | | |
| For fuse switch disconnector size 00 | | | | |
| Single trim cover | 1 | ZH425 | 2CPX062952R9999 | |
| Double trim cover | 1 | ZH426 | 2CPX062953R9999 | |
| Blank cover | 1 | ZH428 | 2CPX062955R9999 | |
| **DIN-Rail for terminals** | | | | |
| 35 x 7.5 mm<br>For recessed mounting in conjunction with mounting bracket ZX372P2 and insulator ZK90P2 | | | | |
| 1 panel wide | 1 | ZX371 | 2CPX068076R9999 | |
| 2 panels wide | 1 | ZX389 | 2CPX068190R9999 | |
| **Insulator for DIN-Rails** | | | | |
| 35 x 7.5 mm including fastening material | 2 | ZK90P2 | 2CPX062426R9999 | |
| **DIN-Rail** | | | | |
| 35 x 7.5 mm | | | | |
| 1 panel wide | 1 | ZX21 | 2CPX039021R9999 | |
| 2 panels wide | 1 | ZX22 | 2CPX039022R9999 | |
| **Fastening screws for DIN-Rails** | | | | |
| Slotted/hexalobular socket pan head thread rolling screw T25 – | 20 | ZB32P20 | 2CPX062651R9999 | |
| Slotted/hexalobular socket pan head thread rolling screw T25 – | 500 | ZB32P500 | 2CPX062652R9999 | |


2CSC000969F0014

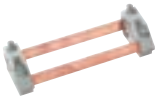
ED137P4


2CSC000970F0014

ED50P12


2CSC000971F0014

ZKV201


2CSC000972F0014

ZK300


2CSC000973F0014

ZX518


2CSC000974F0014

ZX400


2CSC000975F0014

ZB19


2CSC000976F0014


2CSC000977F0014


2CSC000978F0014

ZA122 ZA20 ZA120

| Article | Pcs. | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| Cover holder 45 mm high | 4 | ED137P4 | 2CPX062600R9999 | |
| For fastening on the EDF profile | 40 | ED137P40 | 2CPX062601R9999 | |
| For DIN-Rails 35 x 7.5 mm, use only these cover holders | | | | |
| **Press-and-turn fixing** | | | | |
| To cover distribution board panels | 12 | ED50P12 | 2CPX062337R9999 | |
| **Labelling system** | | | | |
| Self-adhesive, for AT and U distribution boards | 1 | ZKV201 | 2CPX038148R9999 | |
| **Busbar system for N/PE** | | | | |
| Cu 12 x 5 mm, max. connection 95 mm2 | | | | |
| 1 panel wide | 1 | ZK300 | 2CPX038551R9999 | |
| 2 panels wide | 1 | ZK301 | 2CPX038552R9999 | |
| **N/PE busbar holder** | | | | |
| For copper busbars 12 x 5 mm, 20 x 5 mm, 30 x 5 mm | 1 | ZX518 | 2CPX067805R9999 | |
| | 10 | ZX518P10 | 2CPX062551R9999 | |
| **Copper busbars** | | | | |
| 12 x 5 mm = 250 A | | | | |
| 1 m long | | ZX400 | 2CPX061400R9999 | |
| 2 m long | | ZX401 | 2CPX061401R9999 | |
| 3 m long | | ZX402 | 2CPX061402R9999 | |
| 4 m long | | ZX350 | 2CPX061350R9999 | |
| **Cover profile** | | | | |
| For copper busbars 12 x 5 and 12 x 10 mm, length 1 m | | ZB19 | 2CPX038187R9999 | |
| To clip on busbars | | | | |
| **Cleaner** | | | | |
| For distribution board panel covers | 1 | ZA122 | 2CPX038293R9999 | |
| Spray dispenser, 500 ml | | | | |
| **Spray paint can** | | | | |
| Colour RAL 9016, 150 ml | 1 | ZA20 | 2CPX038229R9999 | |
| **Touch-up applicator** | | | | |
| Colour RAL 9016, 12 ml | 1 | ZA120 | 2CPX039043R9999 | |

# Enclosures

## Compact distribution boards For wall-, flush-and hollow-wall mounting*

**User-friendliness in series – compact distribution boards from STRIEBEL & JOHN**

The new compact distribution boards, which have been developed in close cooperation with technicians from the field, stand out by entirely new solutions.

Flexibility and speed will support the users in their daily tasks. Be it for commercial, industrial or domestic uses - this broad range of products offers a solution to any type of mounting - from flush-mounting and wall-mounting up to hollow-wall mounting applications.

All enclosures are double insulated. An earthing set is available as accessory.
Depending on the version, degrees of protection between IP31 and IP43 are available.





**Simply insert the ZKV200P4 hollow-wall set, fix it, ready**



**Standard equipment - membrane flange on top**



**Integrated cable strain-relief, spacious wall mounting**

## Unique – The flexibility and speed of hollow-wall mounting

All flush-mounting compact distribution boards can be installed in the hollow wall in just a few steps using the hollow wall sets provided as accessories.

Besides the electrical installer, the wholesalers also benefit from this well-thought solution, as they no longer need to keep two separate cabinets in stock but are able to supply one cabinet
for two applications.

## Perfection to detail

Wall-mounting compact distribution boards offer the possibility of cable entry on the top, at the bottom and from the back. All wall-mounting compact distribution boards are equipped with one integrated flush fitting membrane flange per panel width on top. This enables quick and easy installation and improves the overall appearance.

A further standard feature per panel width is the cable strain relief at the the top and bottom, which considerably simplifies the installation for every wall-mounting and flush-mounting type.



**Slightly inclining sides - elegant and attractive design**

## Convincing design

With its slightly inclined sides, the bright white cabinet and the attractive locking system, the compact distribution boards set new standards - not only in design but also in terms of stability that is achieved by a special bending technique.

Furthermore, only STRIEBEL & JOHN offers an alternative picture frame for the two-panel wide and the four-row high cabinets – an extension of the well known UK500 "addition line".

Control panels which can be supplied to be finished and wired by the user, or which are printed and wired according to the user's requirements, are also available for commercial and industrial buildings.

# Enclosures
## Compact distribution boards empty cabinets without doors



| Compact distribution boards -Empty cabinets without doors |
|---|
| Prepared to be fitted with CombiLine modules |
| $I_n$ up to 125 A |
| DIN EN 61439-1/-3 (VDE 0660-600) |
| Degree of protection without door IP30* (AL and UL) |
| Degree of protection with door IP43 (AL) |
| Degree of protection with door IP31 (UL) |
| Protection class II, double insulated |
| Protection class I, earthed in connection with an earthing set (accessory) |
| Enclosure made of sheet steel, 1 mm |
| Colour: white, RAL 9016 |
| Media panels (accessory) |
| Trim frame with sheet steel door (accessory) |
| Trim frame with transparent door (accessory) |
| Sheet steel door (accessory) |
| Transparent door (accessory) |
| Cable entry covers (accessory) |
| Hollow-wall mounting set for flush-mounting versions (accessory) |
| **Without N/PE Quick-terminals** |
| With cable strain relief |
| With one membrane flange per panel width on top (AL) |

*For an extension as sub-distribution board with distribution board panels or CombiLine modules
*Leave not less than 2 SU for DIN rail devices behind the closure

# Enclosures

## AL Wall-mounting distribution boards empty cabinets without door



AL31



AL42



AL53



AL64

| PW | GU | SU | External dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| 1 | 3 | 36 | 524 x 324 x 140 | AL31 | 2CPX030770R9999 | |
| | 4 | 72 | 674 x 324 x 140 | AL41 | 2CPX030772R9999 | |
| | 5 | 60 | 824 x 324 x 140 | AL51 | 2CPX030775R9999 | |
| | 6 | 72 | 974 x 324 x 140 | AL61 | 2CPX030779R9999 | |
| 2 | 2 | 48 | 374 x 574 x 140 | AL22 | 2CPX030769R9999 | |
| | 3 | 72 | 524 x 574 x 140 | AL32 | 2CPX030771R9999 | |
| | 4 | 96 | 674 x 574 x 140 | AL42 | 2CPX030773R9999 | |
| | 5 | 120 | 824 x 574 x 140 | AL52 | 2CPX030776R9999 | |
| | 6 | 144 | 974 x 574 x 140 | AL62 | 2CPX030780R9999 | |
| | 7 | 168 | 1124 x 574 x 140 | AL72 | 2CPX030783R9999 | |
| 3 | 4 | 144 | 674 x 842 x 140 | AL43 | 2CPX030774R9999 | |
| | 5 | 180 | 824 x 824 x 140 | AL53 | 2CPX030777R9999 | |
| | 6 | 216 | 974 x 824 x 140 | AL63 | 2CPX030781R9999 | |
| | 7 | 252 | 1124 x 824 x 140 | AL73 | 2CPX030784R9999 | |
| 4 | 5 | 240 | 824 x 1074 x 140 | AL54 | 2CPX030778R9999 | |
| | 6 | 288 | 974 x 1074 x 140 | AL64 | 2CPX030782R9999 | |

# Enclosures
## AL Wall-mounting distribution boards accessories cabinet doors



T20



TTS42

| PW | GU | To be used with... | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| **Sheet steel doors** | | | | | |
| 1 | 3 | AL31 | T100 | 2CPX062057R9999 | |
| | 4 | AL41 | T10 | 2CPX062059R9999 | |
| | 5 | AL51 | T11 | 2CPX062062R9999 | |
| | 6 | AL61 | T12 | 2CPX062066R9999 | |
| 2 | 2 | AL22 | T220 | 2CPX062056R9999 | |
| | 3 | AL32 | T200 | 2CPX062058R9999 | |
| | 4 | AL42 | T20 | 2CPX062060R9999 | |
| | 5 | AL52 | T21 | 2CPX062063R9999 | |
| | 6 | AL62 | T22 | 2CPX062067R9999 | |
| | 7 | AL72 | T23 | 2CPX062070R9999 | |
| 3* | 4 | AL43 | T30 | 2CPX062061R9999 | |
| | 5 | AL53 | T31 | 2CPX062064R9999 | |
| | 6 | AL63 | T32 | 2CPX062068R9999 | |
| | 7 | AL73 | T33 | 2CPX062071R9999 | |
| 4* | 5 | AL54 | T41 | 2CPX062065R9999 | |
| | 6 | AL64 | T42 | 2CPX062069R9999 | |
| **Transparent doors** | | | | | |
| 1 | 3 | AL31 | TTS100 | 2CPX062021R9999 | |
| | 4 | AL41 | TTS10 | 2CPX062026R9999 | |
| | 5 | AL51 | TTS11 | 2CPX062031R9999 | |
| | 6 | AL61 | TTS12 | 2CPX062036R9999 | |
| 2 | 3 | AL32 | TTS200 | 2CPX062022R9999 | |
| | 4 | AL42 | TTS20 | 2CPX062027R9999 | |
| | 5 | AL52 | TTS21 | 2CPX062032R9999 | |
| | 6 | AL62 | TTS22 | 2CPX062037R9999 | |
| | 7 | AL72 | TTS23 | 2CPX062042R9999 | |
| 3* | 4 | AL43 | TTS30 | 2CPX062028R9999 | |
| | 5 | AL53 | TTS31 | 2CPX062033R9999 | |
| | 6 | AL63 | TTS32 | 2CPX062038R9999 | |
| | 7 | AL73 | TTS33 | 2CPX062043R9999 | |
| 4* | 5 | AL54 | TTS41 | 2CPX062034R9999 | |
| | 6 | AL64 | TTS42 | 2CPX062039R9999 | |

*3 or more panels wide: double-wing doors

# Enclosures

## AL Wall-mounting distribution boards accessories cable entry covers



KB19



KB219

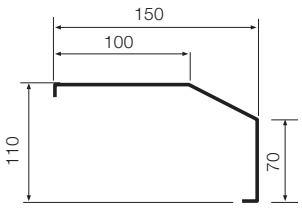


KBS9



KBW1

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Cable entry covers** | | | | |
| With end plates and mounting brackets, colour RAL 9016, adjusted to the colour of the cabinets | | | | |
| Panel width 1, width = 300 mm | 1 | KB19 | 2CPX044049R9999 | |
| Panel width 2, width = 550 mm | 1 | KB29 | 2CPX044050R9999 | |
| Panel width 3, width = 800 mm | 1 | KB39 | 2CPX044051R9999 | |
| Panel width 4, width = 1050 mm | 1 | KB49 | 2CPX044052R9999 | |
| Profile<br>Colour RAL 9016, width 2000 mm | 1 | KB219 | 2CPX044055R9999 | |
| End plate left/right<br>Colour RAL 9016 | 2 | KBS9 | 2CPX044057R9999 | |
| Mounting brackets | 1 | KBW1 | 2CPX044058R9999 | |




Cross section
Cable entry cover



# Enclosures
## UL compact distribution boards* empty cabinets without door



UL41



UL42



UL53



UL64

| PW | GU | SU | Wall cut out dimensions H x W x D in mm | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **Empty cabinets without door** | | | | | | |
| 1 | 4 | 72 | 684 x 310 x 120 | UL41 | 2CPX030756R9999 | |
| | 5 | 60 | 834 x 310 x 120 | UL51 | 2CPX030759R9999 | |
| | 6 | 72 | 984 x 310 x 120 | UL61 | 2CPX030763R9999 | |
| 2 | 3 | 72 | 534 x 560 x 120 | UL32 | 2CPX030755R9999 | |
| | 4 | 96 | 684 x 560 x 120 | UL42 | 2CPX030757R9999 | |
| | 5 | 120 | 834 x 560 x 120 | UL52 | 2CPX030760R9999 | |
| | 6 | 144 | 984 x 560 x 120 | UL62 | 2CPX030764R9999 | |
| | 7 | 168 | 1134 x 560 x 120 | UL72 | 2CPX030767R9999 | |
| 3 | 4 | 144 | 684 x 810 x 120 | UL43 | 2CPX030758R9999 | |
| | 5 | 180 | 834 x 810 x 120 | UL53 | 2CPX030761R9999 | |
| | 6 | 216 | 984 x 810 x 120 | UL63 | 2CPX030765R9999 | |
| | 7 | 252 | 1134 x 810 x 120 | UL73 | 2CPX030768R9999 | |
| 4 | 5 | 240 | 834 x 1060 x 120 | UL54 | 2CPX030762R9999 | |
| | 6 | 288 | 984 x 1060 x 120 | UL64 | 2CPX030766R9999 | |

* For flush-mounting and hollow-wall mounting. In connection with a hollow-wall set ZKV200P4

# Enclosures
## UL compact distribution boards* accessories cabinet doors



BLU42



BLT42

| PW | GU | Trim frame dimensions H x W x D in mm | To be used with... | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| **Trim frame with sheet steel door, powder-coated, white RAL 9016,** | | | | | | |
| 1 | 4 | 694 x 354 x 27 | UL41 | BLU41 | 2CPX031501R9999 | |
| | 5 | 844 x 354 x 27 | UL51 | BLU51 | 2CPX031504R9999 | |
| | 6 | 994 x 354 x 27 | UL61 | BLU61 | 2CPX031508R9999 | |
| 2 | 3 | 544 x 604 x 27 | UL32 | BLU32 | 2CPX031500R9999 | |
| | 4 | 694 x 604 x 27 | UL42 | BLU42 | 2CPX031502R9999 | |
| | 5 | 844 x 604 x 27 | UL52 | BLU52 | 2CPX031505R9999 | |
| | 6 | 994 x 604 x 27 | UL62 | BLU62 | 2CPX031509R9999 | |
| | 7 | 1144 x 604 x 27 | UL72 | BLU72 | 2CPX031511R9999 | |
| 3*[1] | 4 | 694 x 854 x 27 | UL43 | BLU43 | 2CPX031503R9999 | |
| | 5 | 844 x 854 x 27 | UL53 | BLU53 | 2CPX031506R9999 | |
| | 6 | 994 x 854 x 27 | UL63 | BLU63 | 2CPX031510R9999 | |
| | 7 | 1144 x 854 x 27 | UL73 | BLU73 | 2CPX031512R9999 | |
| 4*[1] | 5 | 844 x 1104 x 27 | UL54 | BLU54 | 2CPX031507R9999 | |
| | 6 | 994 x 1104 x 27 | UL64 | BLU64 | 2CPX031513R9999 | |
| **Trim frame with transparent door** | | | | | | |
| 1 | 4 | 694 x 354 x 27 | UL41 | BLT41 | 2CPX030786R9999 | |
| | 5 | 844 x 354 x 27 | UL51 | BLT51 | 2CPX030789R9999 | |
| | 6 | 994 x 354 x 27 | UL61 | BLT61 | 2CPX030793R9999 | |
| 2 | 3 | 544 x 604 x 27 | UL32 | BLT32 | 2CPX030785R9999 | |
| | 4 | 694 x 604 x 27 | UL42 | BLT42 | 2CPX030787R9999 | |
| | 5 | 844 x 604 x 27 | UL52 | BLT52 | 2CPX030790R9999 | |
| | 6 | 994 x 604 x 27 | UL62 | BLT62 | 2CPX030794R9999 | |
| | 7 | 1144 x 604 x 27 | UL72 | BLT72 | 2CPX030797R9999 | |
| 3*[1] | 4 | 694 x 854 x 27 | UL43 | BLT43 | 2CPX030788R9999 | |
| | 5 | 844 x 854 x 27 | UL53 | BLT53 | 2CPX030791R9999 | |
| | 6 | 994 x 854 x 27 | UL63 | BLT63 | 2CPX030795R9999 | |
| | 7 | 1144 x 854 x 27 | UL73 | BLT73 | 2CPX030798R9999 | |
| 4*[1] | 5 | 844 x 1104 x 27 | UL54 | BLT54 | 2CPX030792R9999 | |
| | 6 | 994 x 1104 x 27 | UL64 | BLT64 | 2CPX030796R9999 | |

*3 or more panels wide: double-wing doors
* For flush-mounting and hollow-wall mounting. In connection with a hollow-wall set ZKV200P4

# Enclosures

## Media panels for AL and UL compact distribution boards - empty cabinets



| Technical specifications |
| --- |
| For the AL and UL cabinet series |
| Media panels with perforated sheet steel mounting plate without cover |
| With fitted DIN rail |
| Wire holders supplied |
| Quick mounting of devices without drilling |
| Protection class depends on type and installation of equipment |







1MM0A



ZE225



ZX29



ED44P10



ED57P10



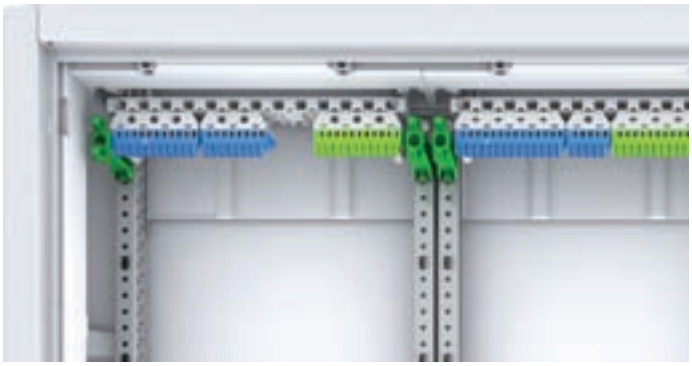
ZX287P10

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Media panel with perforated sheet steel mounting plate** | | | | |
| Overall height 3 GU | 1 | 1MM00A | 2CPX030982R9999 | |
| Overall height 4 GU | 1 | 1MM0A | 2CPX030987R9999 | |
| Overall height 5 GU | 1 | 1MM1A | 2CPX030988R9999 | |
| Overall height 6 GU | 1 | 1MM2A | 2CPX030989R9999 | |
| Double socket with euro-plug insert<br>For supplying 230 V power to power supplies | 1 | ZE225 | 2CPX061177R9999 | |
| Mounting cross member<br>For double socket (ZE225) | 1 | ZX29 | 2CPX061178R9999 | |
| Wire holder<br>28.5 mm | 10 | ED44P10 | 2CPX062335R9999 | |
| Adapter<br>For assembling ED44P10 wire holders<br>on the perforated sheet steel mounting plate | 10 | ED57P10 | 2CPX061179R9999 | |
| Screws<br>M4 x 14 thread rolling for the perforated sheet steel mounting plate | 10 | ZX287P10 | 2CPX061180R9999 | |

# N/PE quick-terminals
## Standardised, future-oriented and flexible

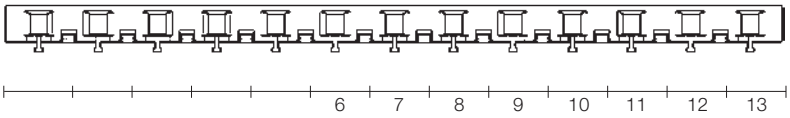
### Tidy and flexible installation

The N/PE Quick-terminals simplify your work: Just choose the right terminal blocks and plug them in!
Extremely flexible in terms of expandability, these N/PE Quick-terminals are unmatched for safe, efficient and future-oriented conductor connections.



### Product benefits

- Flexible terminal system for several N power circuits:
  Screw connections: 2.5 to 25 mm² with steep conductor;
  up to 25 mm² with flexible conductor with sleeve;
  spring terminals: 1.5 to 4 mm² with steep conductor; 2.5 mm²
  with flexible conductor with sleeve
- Optimal when using several residual current circuit breakers (RCDs)
- Ease of expansion using connecting bridges
- Precise assignment of the terminal blocks (clear colour coding:
  N = blue, PE = yellow-green)
- Easy labelling of the terminals (DIN VDE 0603 Part 1) using pre-printed, self-adhesive number strips
- Wide range of applications: can be used with the UK500 and A300 consumer unit series, in all compact distribution boards, and with all meter-, wall-mounting and floor-standing cabinets.




**quick carrier type ZK11**

**units**

| N/PE (Neutral/Earth) Terminal block | N (Neutral) Quick-Terminals | Screw-Terminals technic | Spring terminal technic | PE (Earthing) Quick terminals | Screw-Terminals technic | Spring terminal technic |
|---|---|---|---|---|---|---|
| 1 2 | ZK50B | 0 x 25 mm² | 5 x 1,5 - 4 mm² | - | - | - |
| 1 2 | ZK51B | 1 x 25 mm² | 5 x 1,5 - 4 mm² | ZK51G | 1 x 25 mm² | 5 x 1,5 - 4 mm² |
| 1 2 3 | ZK82B | 2 x 25 mm² | 8 x 1,5 - 4 mm² | ZK82G | 2 x 25 mm² | 8 x 1,5 - 4 mm² |
| 1 2 3 4 | ZK113B | 3 x 25 mm² | 11 x 1,5 - 4 mm² | ZK113G | 3 x 25 mm² | 11 x 1,5 - 4 mm² |
| 1 2 3 4 5 | ZK144B | 4 x 25 mm² | 14 x 1,5 - 4 mm² | ZK144G | 4 x 25 mm² | 14 x 1,5 - 4 mm² |
| 1 2 3 4 5 6 | ZK175B | 5 x 25 mm² | 17 x 1,5 - 4 mm² | ZK175G | 5 x 25 mm² | 17 x 1,5 - 4 mm² |
| 1 2 3 4 5 6 7 | ZK206B | 6 x 25 mm² | 20 x 1,5 - 4 mm² | ZK206G | 6 x 25 mm² | 20 x 1,5 - 4 mm² |
| | ZK50BT | 0 x 25 mm² | 5 x 1,5 - 4 mm² | - | - | - |

# Enclosures
## N/PE quick-terminals accessories



ZK113B

| Article | Number of terminals 1.5 - 4 mm² | Number of terminals 2.5 - 25 mm² | External dimensions H x W x D in mm | Pieces | Order details | | Price |
|---|---|---|---|---|---|---|---|
| | | | | | Type | Order code | |
| N Quick-terminals | 5 | 0 | 23 x 32 x 21 | 1 | ZK50B | 2CPX062750R9999 | |
| For quick carriers | 5 | 1 | 32 x 32 x 31 | 1 | ZK51B | 2CPX062751R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82B | 2CPX062752R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113B | 2CPX062753R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144B | 2CPX062754R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175B | 2CPX062755R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206B | 2CPX062756R9999 | |



ZK50BT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| N Quick terminal with adapter ZK15<br>For fastening to DIN rail | 5 | 0 | 28 x 39 x 25 | 1 | ZK50BT | 2CPX062745R9999 | |



ZK113G

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE Quick-terminals | 5 | 1 | 32 x 32 x 31 | 1 | ZK51G | 2CPX062757R9999 | |
| For quick carriers | 8 | 2 | 32 x 49 x 31 | 1 | ZK82G | 2CPX062758R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113G | 2CPX062759R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144G | 2CPX062760R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175G | 2CPX062761R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206G | 2CPX062762R9999 | |



ZK10P10

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Connecting bridges<br>for Quick-terminals | | | | 10 | ZK10P10 | 2CPX062763R9999 | |



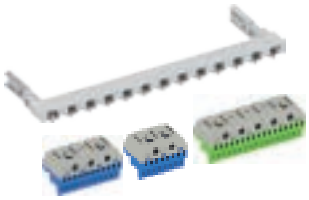
ZK13

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Quick carriers<br>For compact distribution boards AT/U<br>Usable width for Quick-terminals 214 mm | | | | 1 | ZK13 | 2CPX064982R9999 | |



ZK15

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Adapter for ZK50B<br>Engaging the ZK50B N Quick-terminal in the adapter<br>ZK15 leads to ZK50BT to be fastened to the DIN rail | | | | 1 | ZK15 | 2CPX064984R9999 | |



ZK220

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| N/PE Quick-terminal-set for compact distribution boards<br>In combination with quick carrier ZK13<br>and quick terminals:<br>ZK113B: N 3 x 25 + 11 x 4 mm²<br>ZK82B: N 2 x 25 + 8 x 4 mm²<br>ZK175G: PE 5 x 25 + 17 x 4 mm² | | | | 1 Set | ZK220 | 2CPX063132R9999 | |

# Enclosures
## Compact distribution boards accessories



ZB113



ZB111



ZX456



ZX440



ZH800



ZH220



ZH130



ZH132



ZH134



ZH137

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| Standard closure<br>Included in the scope of delivery | 1 | ZB113 | 2CPX038478R9999 | |
| Closure with lock<br>With 2 keys | 1 | ZB111 | 2CPX038479R9999 | |
| **Espagnolette closure**<br>In combination with standard closure ZB113* (earthing part) or closure with lock ZB111 | | | | |
| Overall height 4 GU | 1 | ZX456 | 2CPX039586R9999 | |
| Overall height 5 GU | 1 | ZX457 | 2CPX039587R9999 | |
| Overall height 6 GU | 1 | ZX458 | 2CPX039588R9999 | |
| Overall height 7 GU | 1 | ZX459 | 2CPX039589R9999 | |
| **Espagnolette closure**<br>In combination with ZH203, ZH220, ZH221, ZH222, ZH227, ZH228 | | | | |
| Overall height 4 GU | 1 | ZX440 | 2CPX039570R9999 | |
| Overall height 5 GU | 1 | ZX441 | 2CPX039571R9999 | |
| Overall height 6 GU | 1 | ZX442 | 2CPX039572R9999 | |
| Overall height 7 GU | 1 | ZX443 | 2CPX039573R9999 | |
| Installation set*<br>of different closure systems in<br>combination with ZH220/ZH221/ZH222 | 1 | ZH800 | 2CPX038544R9999 | |
| **Latch plate** | | | | |
| Double bit operating pin, 3 mm standard and 5 mm<br>(ZH800 must be ordered separately) | 1 | ZH220 | 2CPX045700R9999 | |
| For triangular or square operating pins and for Daimler-Benz insert<br>(ZH800 must be ordered separately) | 1 | ZH221 | 2CPX045701R9999 | |
| For T-handle or latch handle (ZH800 must be ordered separately) | 1 | ZH222 | 2CPX045702R9999 | |
| **Operating pin** | | | | |
| Double-bit 3 mm | 1 | ZH130 | 2CPX060490R9999 | |
| Double-bit 5 mm | 1 | ZH131 | 2CPX060491R9999 | |
| Triangular 7 mm | 1 | ZH132 | 2CPX060492R9999 | |
| Triangular 8 mm | 1 | ZH133 | 2CPX060493R9999 | |
| Square 6 mm | 1 | ZH134 | 2CPX060494R9999 | |
| Square 7 mm | 1 | ZH135 | 2CPX060495R9999 | |
| Square 8 mm | 1 | ZH136 | 2CPX060496R9999 | |
| Daimler-Benz insert | 1 | ZH137 | 2CPX060497R9999 | |

*Leave not less than 2 SU for DIN rail devices behind the closure



ZH157



ZH91



ZH138



ZH139



ZH140



ZH141



ZH228



ZH227



ZH203



ZH142

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Operating keys** | | | | |
| Triangular 7 mm | 1 | ZH157 | 2CPX060657R9999 | |
| Triangular 8 mm | 1 | ZH158 | 2CPX060658R9999 | |
| Double-bit 3 mm | 1 | ZH160 | 2CPX060660R9999 | |
| Double-bit 5 mm | 1 | ZH161 | 2CPX060661R9999 | |
| Square 6 mm | 1 | ZH162 | 2CPX060662R9999 | |
| Square 7 mm | 1 | ZH163 | 2CPX060663R9999 | |
| Square 8 mm | 1 | ZH164 | 2CPX060664R9999 | |
| Daimler-Benz insert | 1 | ZH165 | 2CPX060665R9999 | |
| Universal key<br>Double bit 3 and 5 mm<br>Triangular 8 mm<br>Square 6 and 8 mm | 1 | ZH91 | 2CPX066091R9999 | |
| **T-handle*** | | | | |
| Without lock | 1 | ZH138 | 2CPX060498R9999 | |
| With lock | 1 | ZH139 | 2CPX060499R9999 | |
| **Latch handle*** | | | | |
| Without lock | 1 | ZH140 | 2CPX060500R9999 | |
| With lock | 1 | ZH141 | 2CPX060501R9999 | |
| Swivel handle with lead sealable cap*<br>For semi-cylinder 40 mm (30/10) | 1 | ZH228 | 2CPX045709R9999 | |
| Swivel handle with lead sealable cap*<br>With cabinet handle Berlin, simultaneous locking | 1 | ZH227 | 2CPX045708R9999 | |
| Swivel handle with lead sealable cap*<br>With closure E0 12 | 1 | ZH203 | 2CPX045707R9999 | |
| Dummy insert<br>instead of a semi-cylinder for the swivel handle ZH228 | 1 | ZH142 | 2CPX060502R9999 | |

*Leave not less than 2 SU for DIN rail devices behind the closure

# Enclosures
## Compact distribution boards accessories



ZKV200P4



ZE11



ZE12



ZB43



ZX69K



ZA1P5



ZA6



ZA5



ZA53



ZX139LR

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Hollow-wall mounting set<br>For retrofitting flush-mounted distribution boards<br>Wall thickness: min. 14 mm, max. 58 mm | 1 | ZKV200P4 | 2CPX062446R9999 | |
| Earthing set for wall-mounting compact distribution boards<br>For conversion into protection class 1 | 1 | ZE11 | 2CPX038143R9999 | |
| Earthing set for flush-mounting compact distribution boards<br>For conversion into protection class 1 | 1 | ZE12 | 2CPX038144R9999 | |
| Membrane flange<br>For inserting the cable from below | 1 | ZB43 | 2CPX038183R9999 | |
| **Vertical partitions**<br>between distribution board panels, not arc-resistant | | | | |
| Overall height 3 GU | 1 | ZX69K | 2CPX039332R9999 | |
| Overall height 4 GU | 1 | ZX70K | 2CPX039333R9999 | |
| Overall height 5 GU | 1 | ZX71K | 2CPX039334R9999 | |
| Overall height 6 GU | 1 | ZX72K | 2CPX039335R9999 | |
| Overall height 7 GU | 1 | ZX73K | 2CPX039336R9999 | |
| Slot cover | 5 | ZA1P5 | 2CPX062384R9999 | |
| Colour RAL 7035 | 50 | ZA1P50 | 2CPX062378R9999 | |
| For 12 space units, break-off type | | | | |
| Document holder DIN A4<br>Self-adhesive with transparent sleeve | 1 | ZA6 | 2CPX038227R9999 | |
| | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve<br>and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| Document holder DIN A4 | 1 | ZA13 | 2CPX038233R9999 | |
| Self-adhesive | 10 | ZA13P10 | 2CPX062381R9999 | |
| Document holder DIN A5 | 1 | ZA5 | 2CPX038228R9999 | |
| Self-adhesive | 10 | ZA5P10 | 2CPX062382R9999 | |
| Document holder | 1 | ZA53 | 2CPX071103R9999 | |
| Door hinge (plastic) | 2 | ZX139LR | 2CPX039139R9999 | |



ZX464

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Door bolt for double-wing doors<br>For cabinets with three or more panel widths | 1 | ZX464 | 2CPX039596R9999 | |



ZX371

**DIN rail for terminals** 35 x 7.5 mm

For recessed mounting in conjunction with mounting bracket ZX372P2 and insulator ZK90P2

| | | | | |
|---|---|---|---|---|
| 1 panel wide | 1 | ZX371 | 2CPX068076R9999 | |
| 2 panel wide | 1 | ZX389 | 2CPX068190R9999 | |



ZK90P2

| | | | | |
|---|---|---|---|---|
| Insulator for DIN rails<br>35 x 7.5 mm including fastening material | 2 | ZK90P2 | 2CPX062426R9999 | |



ZX21

**DIN rail**

35 x 7.5 mm

| | | | | |
|---|---|---|---|---|
| 1 panel wide | 1 | ZX21 | 2CPX039021R9999 | |
| 2 panel wide | 1 | ZX22 | 2CPX039022R9999 | |



ZB32P20

**Fastening screws for DIN rails**

| | | | | |
|---|---|---|---|---|
| Slotted/hexalobular socket pan head thread rolling screw T25 – | 20 | ZB32P20 | 2CPX062651R9999 | |
| Slotted/hexalobular socket pan head thread rolling screw T25 – | 500 | ZB32P500 | 2CPX062652R9999 | |



ED137P4

| | | | | |
|---|---|---|---|---|
| Cover holder 45 mm high | 4 | ED137P4 | 2CPX062600R9999 | |
| For fastening on the EDF profile | 40 | ED137P40 | 2CPX062601R9999 | |
| For DIN rails 35 x 7.5 mm, use only these cover holders | | | | |



ED50P12

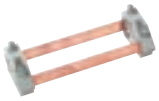
| | | | | |
|---|---|---|---|---|
| Press-and-turn fixing<br>To cover distribution board panels | 12 | ED50P12 | 2CPX062337R9999 | |



ZKV201

| | | | | |
|---|---|---|---|---|
| Labelling system<br>Self-adhesive, for AT and U distribution boards | 1 | ZKV201 | 2CPX038148R9999 | |

# Enclosures
## Compact distribution boards accessories



ZK300



ZX518



ZX400



ZB19



ZA122



ZA20

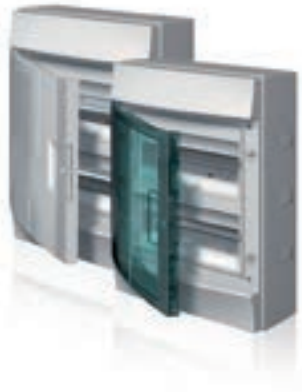


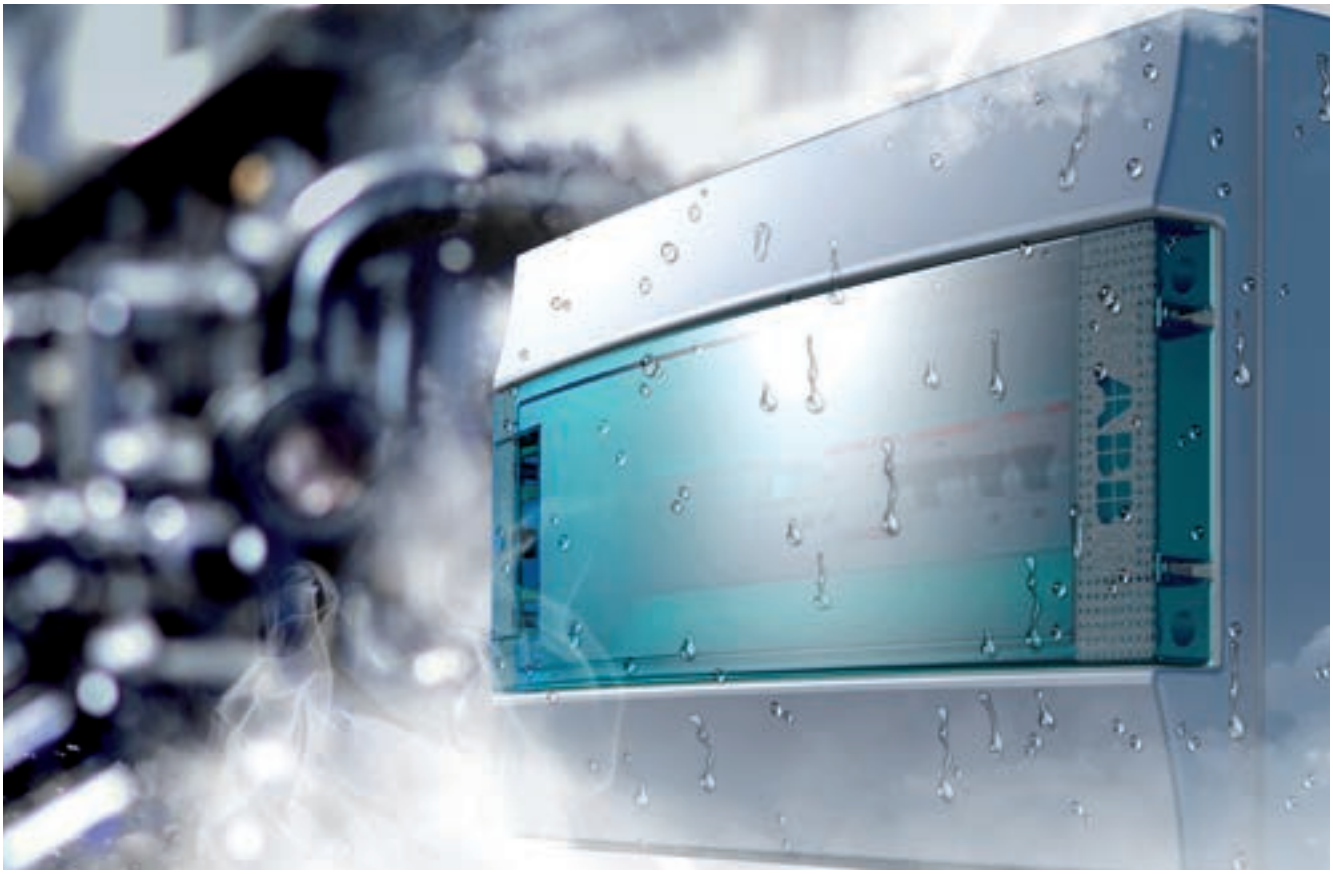
ZA120

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Busbar system for N/PE** | | | | |
| Cu 12 x 5 mm, max. connection 95 mm² | | | | |
| 1 panel wide | 1 | ZK300 | 2CPX038551R9999 | |
| 2 panel wide | 1 | ZK301 | 2CPX038552R9999 | |
| N/PE busbar holder | 1 | ZX518 | 2CPX067805R9999 | |
| For copper busbars 12 x 5 mm, 20 x 5 mm, 30 x 5 mm | 10 | ZX518P10 | 2CPX062551R9999 | |
| **Copper busbars** | | | | |
| 12 x 5 mm = 250 A | | | | |
| 1 m long | | ZX400 | 2CPX061400R9999 | |
| 2 m long | | ZX401 | 2CPX061401R9999 | |
| 3 m long | | ZX402 | 2CPX061402R9999 | |
| 4 m long | | ZX350 | 2CPX061350R9999 | |
| Cover profile<br>For copper busbars 12 x 5 and 12 x 10 mm, length 1 m<br>To clip on busbars | | ZB19 | 2CPX038187R9999 | |
| Cleaner<br>For distribution board panel covers<br>Spray dispenser, 500 ml | 1 | ZA122 | 2CPX038293R9999 | |
| Spray paint can<br>Colour RAL 9016, 150 ml | 1 | ZA20 | 2CPX038229R9999 | |
| Touch-up applicator<br>Colour RAL 9016, 12 ml | 1 | ZA120 | 2CPX039043R9999 | |

# System pro *E* comfort® MISTRAL65. Unique design. Endless possibilities.

Versatility, efficiency and a unique, elegant, unmistakable design. MISTRAL65 is ABB's new, pioneering series of consumer units with IP65 protection class. The range includes versions with fully reversible blank, or transparent doors in the exclusive petrol blue colour that open up to 180 degrees. The spacious interior is easy to access and has been designed to speed up the wiring operations plus total integration among modular circuitbreakers of the DIN rail, moulded-case and switchgear front type. MISTRAL65 includes a wide range of sizes, with 4 to 72 modules, and is thus ideal both for residential and industrial installations.
**www.abb.com/lowvoltage**

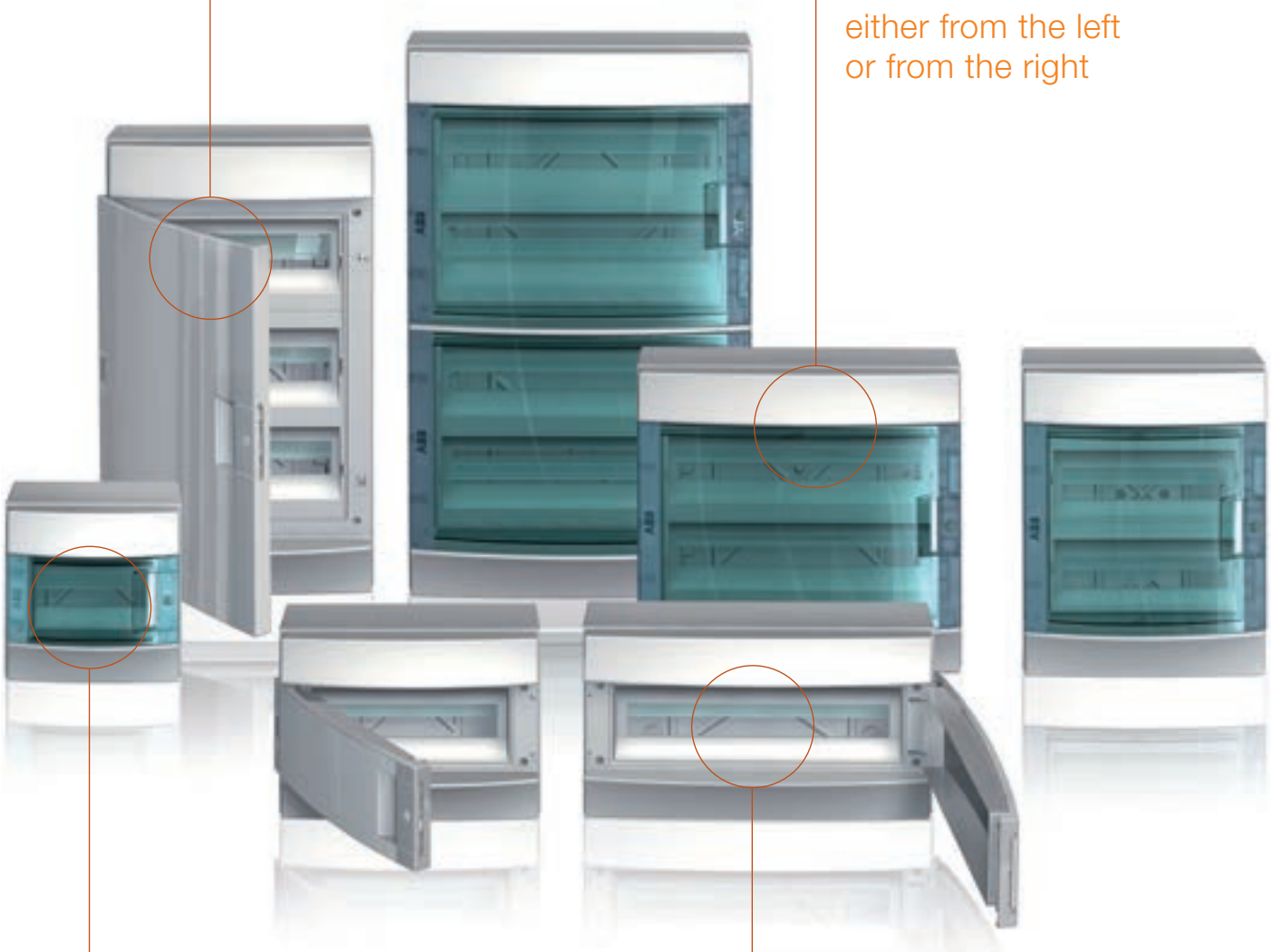




# System pro *E* comfort MISTRAL65
## Endless installation possibilities

Door opens up to 180º allowing full access to the interior of the unit

The symmetrical design allows opening of the reversible door either from the left or from the right



Door available in two versions: petrol blue and opaque

Concealed rear mounts for secure wall installation



### Invisible cable entry and exit

The MISTRAL65 GWT 650 version comes with smooth surfaces for the cables entry on top and bottom.
The version GWT 750 has knockouts of various dimensions on the upper and lower sides.



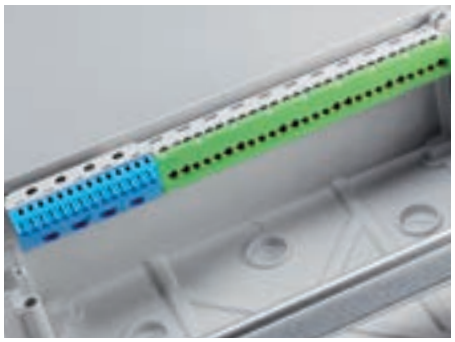
### More internal space

Internal spaces have been created to make cabling even easier, with cable clips and holes for fastening wires to the frame with simple cable ties.



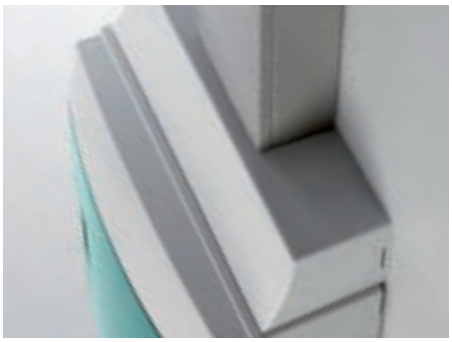
### Easy installation of extra modules

Additional modules can be installed by removing two pre-trimmed elements. This offers an easy and tidy solution when there are unforeseen installation requirements.



### New generation terminals

The new System pro *E* comfort MISTRAL® range of consumer units is amended with a wide, completely new ABB terminal blocks. To different versions offer screw and spring fast coupling for easy and effective cabling up to 63A or 100A.



### Protected trunking entry

The new polycarbonate accessory for trunking entry can be positioned at the top or bottom of the consumer unit, connecting and protecting the conductor bundles. A series of internal knockouts allows it to house any type of trunking.



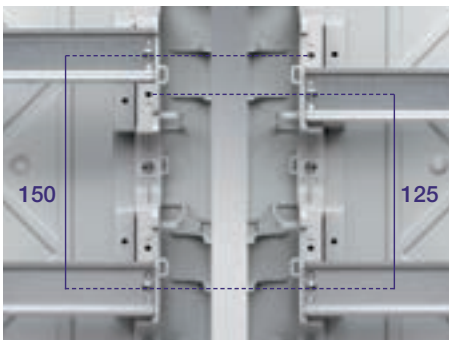
### Aesthetically clean installation

Interior slots allow the unit to be fixed to the wall at points that cannot be seen from the outside, making for an aesthetically clean installation. Special snap-in closure plugs guarantee class II protection (double insulation).



### Optional door lock

The standard door with ergonomic handle and snap-on closure can be supplied with a lock and key on request. This ensures only authorized people have access and prevents tampering or incorrect operation.




### Variable distance between DIN-Rails

To create space at the top or bottom of the consumer unit, the central distance between the DIN-Rails can be modified from the standard 150 mm to 125 mm. The front panel can be removed, reversed and re-installed with a simple click.



### Horizontal coupling

The consumer units can be installed side by side, with cable gland accessories protecting the conductors' path between adjacent units.

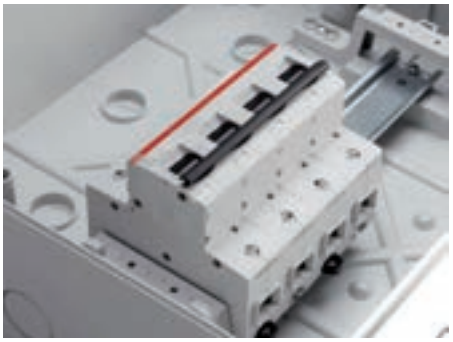
# System pro *E* comfort MISTRAL65
## Endless installation possibilities



### Blind panels for small automation application
Accessories include blind panels and base plates allowing the installation of other types of devices, in addition to modular DIN-Rail products, like contactors, motor starters or devices on the front of the panel.



### Two DIN positions
The frame has two DIN-Rail positions so accessories of different depths, like MCCBs, can be installed in perfect alignment.



### Easy installation of non-standard devices
The flexibility of the frame allows easy installation of devices with above-standard depth like high-performance MCBs.



### Compatible with standard modular devices
The first depth allows the installation of standard products. These include most modular devices currently on the market.



### Non-modular equipment
Accessories like blind panels and base plates enable the installation of other types of devices, in addition to modular DIN products, on the front of the panel. These include control buttons and indicator lights.

# Enclosures
## System pro *E* comfort MISTRAL65 650






4 modules






8 modules






12 modules






18 modules






24 modules





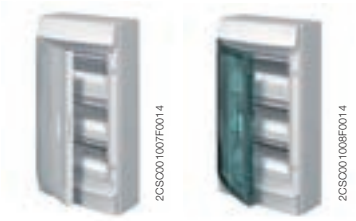

36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **1 Row** | | | | | | |
| Consumer units MISTRAL65 opaque door 4M | 650 | 4 | 152x202x117 | 1SL1100A00 | | 1/24 |
| Consumer units MISTRAL65 transparent door 4M | 650 | 4 | 152x202x117 | 1SL1200A00 | | 1/24 |
| Consumer units MISTRAL65 opaque door 8M | 650 | 8 | 232x250x154 | 1SL1101A00 | | 1/11 |
| Consumer units MISTRAL65 transparent door 8M | 650 | 8 | 232x250x154 | 1SL1201A00 | | 1/11 |
| Consumer units MISTRAL65 opaque door 12M | 650 | 12 | 320x250x155 | 1SL1102A00 | | 1/7 |
| Consumer units MISTRAL65 transparent door 12M | 650 | 12 | 320x250x155 | 1SL1202A00 | | 1/7 |
| Consumer units MISTRAL65 opaque door 18M | 650 | 18 | 430x250x155 | 1SL1103A00 | | 1/4 |
| Consumer units MISTRAL65 transparent door 18M | 650 | 18 | 430x250x155 | 1SL1203A00 | | 1/4 |
| **2 Rows** | | | | | | |
| Consumer units MISTRAL65 opaque door 24M | 650 | 24 | 320x435x155 | 1SL1104A00 | | 1/4 |
| Consumer units MISTRAL65 transparent door 24M | 650 | 24 | 320x435x155 | 1SL1204A00 | | 1/4 |
| Consumer units MISTRAL65 opaque door 36M 2F | 650 | 36 | 430x435x155 | 1SL1105A00 | | 1/2 |
| Consumer units MISTRAL65 transparent door 36M 2F | 650 | 36 | 430x435x155 | 1SL1205A00 | | 1/2 |

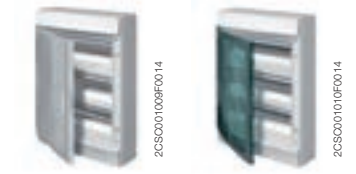


**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

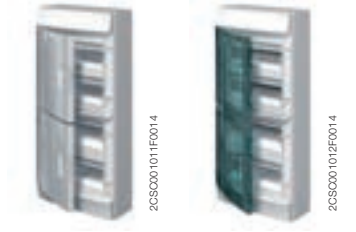
# Enclosures
## System pro *E* comfort MISTRAL65 650



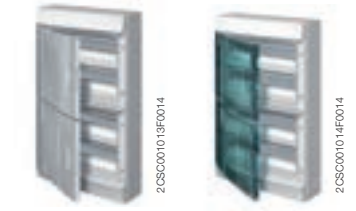

36 modules




54 modules




48 modules




72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| **3 Rows** | | | | | | |
| Consumer units MISTRAL65 opaque door 36M 3F | 650 | 36 | 320x600x155 | 1SL1106A00 | | 1/3 |
| Consumer units MISTRAL65 transparent door 36M 3F | 650 | 36 | 320x600x155 | 1SL1206A00 | | 1/3 |
| Consumer units MISTRAL65 opaque door 54M | 650 | 54 | 430x600x155 | 1SL1108A00 | | 1/1 |
| Consumer units MISTRAL65 transparent door 54M | 650 | 54 | 430x600x155 | 1SL1208A00 | | 1/1 |
| **4 Rows** | | | | | | |
| Consumer units MISTRAL65 opaque door 48M | 650 | 48 | 320x735x155 | 1SL1107A00 | | 1/1 |
| Consumer units MISTRAL65 transparent door 48M | 650 | 48 | 320x735x155 | 1SL1207A00 | | 1/1 |
| Consumer units MISTRAL65 opaque door 72M | 650 | 72 | 430x735x155 | 1SL1109A00 | | 1/1 |
| Consumer units MISTRAL65 transparent door 72M | 650 | 72 | 430x735x155 | 1SL1209A00 | | 1/1 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## System pro *E* comfort MISTRAL65 750



4 modules



8 modules



12 modules



18 modules



24 modules



36 modules



36 modules



54 modules



48 modules



72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order details Type | Article N.o | Price | Pack-aging |
|---|---|---|---|---|---|---|---|
| **1 Row** | | | | | | | |
| Consumer units MISTRAL65 750 transparent door 4M | 750 | 4 | 152x202x117 | 1SLM006500A1210 | 1SL1210A00 | | 1/24 |
| Consumer units MISTRAL65 750 transparent door 8M | 750 | 8 | 232x250x154 | 1SLM006500A1211 | 1SL1211A00 | | 1/11 |
| Consumer units MISTRAL65 750 transparent door 12M | 750 | 12 | 320x250x155 | 1SLM006500A1212 | 1SL1212A00 | | 1/7 |
| Consumer units MISTRAL65 750 transparent door 18M | 750 | 18 | 430x250x155 | 1SLM006500A1213 | 1SL1213A00 | | 1/4 |
| **2 Rows** | | | | | | | |
| Consumer units MISTRAL65 750 transparent door 24M | 750 | 24 | 320x435x155 | 1SLM006500A1214 | 1SL1214A00 | | 1/4 |
| Consumer units MISTRAL65 750 transparent door 36M 2F | 750 | 36 | 430x435x155 | 1SLM006500A1215 | 1SL1215A00 | | 1/2 |
| **3 Rows** | | | | | | | |
| Consumer units MISTRAL65 750 transparent door 36M 3F | 750 | 36 | 320x600x155 | 1SLM006500A1216 | 1SL1216A00 | | 1/3 |
| Consumer units MISTRAL65 750 transparent door 54M | 750 | 54 | 430x600x155 | 1SLM006500A1218 | 1SL1218A00 | | 1/1 |
| **4 Rows** | | | | | | | |
| Consumer units MISTRAL65 750 transparent door 48M | 750 | 48 | 320x735x155 | 1SLM006500A1217 | 1SL1217A00 | | 1/1 |
| Consumer units MISTRAL65 750 transparent door 72M | 750 | 72 | 430x735x155 | 1SLM006500A1219 | 1SL1219A00 | | 1/1 |

# Enclosures
## System pro *E* comfort MISTRAL65 with terminals






**8 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 8M 12SM | 650 | 8 | 232x250x154 | 1SLM006501A1201 | | 1/11 |
| MISTRAL65 opaque door 8M 12SM | 650 | 8 | 232x250x154 | 1SLM006501A1101 | | 1/11 |



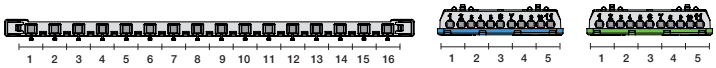






**12 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 12M 22SM | 650 | 12 | 320x250x155 | 1SLM006501A1202 | | 1/7 |
| MISTRAL65 opaque door 12M 22SM | 650 | 12 | 320x250x155 | 1SLM006501A1102 | | 1/7 |



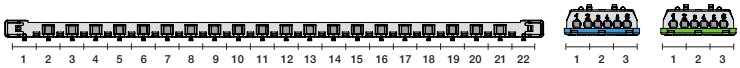






**18 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 18M 12SM | 650 | 18 | 430x250x155 | 1SLM006501A1203 | | 1/4 |
| MISTRAL65 opaque door 18M 12SM | 650 | 18 | 430x250x155 | 1SLM006501A1103 | | 1/4 |



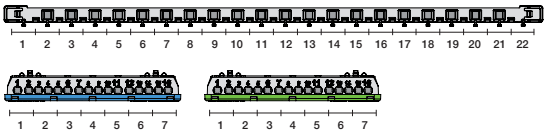






**18 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 18M 32SM | 650 | 18 | 430x250x155 | 1SLM006502A1203 | | 1/4 |
| MISTRAL65 opaque door 18M 32SM | 650 | 18 | 430x250x155 | 1SLM006502A1103 | | 1/4 |









**24 modules**

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 24M 22SM | 650 | 24 | 320x435x155 | 1SLM006501A1204 | | 1/4 |
| MISTRAL65 opaque door 24M 22SM | 650 | 24 | 320x435x155 | 1SLM006501A1104 | | 1/4 |




**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details







24 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 24M 42SM | 650 | 24 | 320x435x155 | 1SLM006502A1204 | | 1/4 |
| MISTRAL65 opaque door 24M 42SM | 650 | 24 | 320x435x155 | 1SLM006502A1104 | | 1/4 |



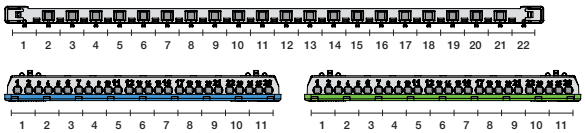







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 36M 2F 52SM | 650 | 36 | 430x435x155 | 1SLM006501A1205 | | 1/2 |
| MISTRAL65 opaque door 36M 2F 52SM | 650 | 36 | 430x435x155 | 1SLM006501A1105 | | 1/2 |



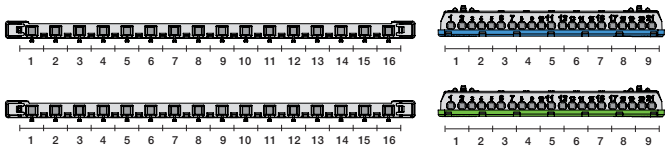







36 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 36M 3F 42SM | 650 | 36 | 320x600x155 | 1SLM006501A1206 | | 1/3 |
| MISTRAL65 opaque door 36M 3F 42SM | 650 | 36 | 320x600x155 | 1SLM006501A1106 | | 1/3 |



# Enclosures
## System pro *E* comfort MISTRAL65 with terminals

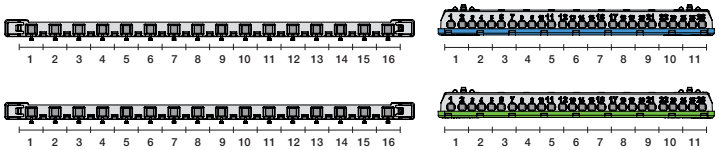






48 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 48M 52SM | 650 | 48 | 320x735x155 | 1SLM006501A1207 | | 1/1 |
| MISTRAL65 opaque door 48M 52SM | 650 | 48 | 320x735x155 | 1SLM006501A1107 | | 1/1 |



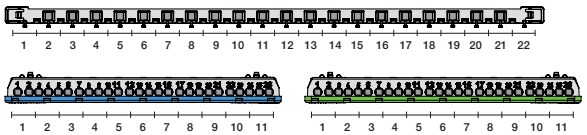







54 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 54M 52SM | 650 | 54 | 430x600x155 | 1SLM006501A1208 | | 1/1 |
| MISTRAL65 opaque door 54M 52SM | 650 | 54 | 430x600x155 | 1SLM006501A1108 | | 1/1 |



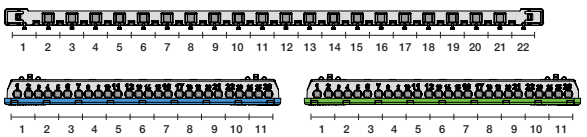







72 modules

| Description | GWT | N° of modules [18 mm] | Dimensions WxHxD [mm] | Order code | Price | Pack-aging |
|---|---|---|---|---|---|---|
| MISTRAL65 transparent door 72M 52SM | 650 | 72 | 430x735x155 | 1SLM006501A1209 | | 1/1 |
| MISTRAL65 opaque door 72M 52SM | 650 | 72 | 430x735x155 | 1SLM006501A1109 | | 1/1 |






**Where to find more:**
Chapter 14 of
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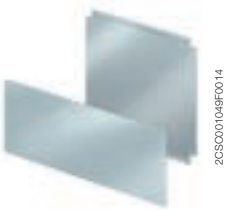
# Enclosures
## Accessories for System pro *E* comfort MISTRAL65



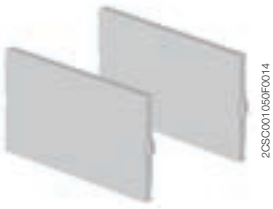

Opaque door




Transparent door




Base plates




Blind panel

| Description | Order details | | | Packaging |
|---|---|---|---|---|
| | Type | Article number | Price | |
| **Opaque door** | | | | |
| Opaque door 4M MISTRAL65 | 1SLM006500A1900 | 1SL1900A00 | | 1/15 |
| Opaque door 8M MISTRAL65 | 1SLM006500A1902 | 1SL1902A00 | | 1/20 |
| Opaque door 12M MISTRAL65 | 1SLM006500A1904 | 1SL1904A00 | | 1/10 |
| Opaque door 18M MISTRAL65 | 1SLM006500A1906 | 1SL1906A00 | | 1/20 |
| Opaque door 24M / 48M MISTRAL65 | 1SLM006500A1908 | 1SL1908A00 | | 1/6 |
| Opaque door 36M MISTRAL65 | 1SLM006500A1910 | 1SL1910A00 | | 1/10 |
| Opaque door 36M / 72M MISTRAL65 | 1SLM006500A1912 | 1SL1912A00 | | 1/14 |
| Opaque door 54M MISTRAL65 | 1SLM006500A1914 | 1SL1914A00 | | 1/8 |
| **Transparent door** | | | | |
| Transparent door 4M MISTRAL65 | 1SLM006500A1901 | 1SL1901A00 | | 1/15 |
| Transparent door 8M MISTRAL65 | 1SLM006500A1903 | 1SL1903A00 | | 1/20 |
| Transparent door 12M MISTRAL65 | 1SLM006500A1905 | 1SL1905A00 | | 1/10 |
| Transparent door 18M MISTRAL65 | 1SLM006500A1907 | 1SL1907A00 | | 1/20 |
| Transparent door 24M / 48M MISTRAL65 | 1SLM006500A1909 | 1SL1909A00 | | 1/6 |
| Transparent door 36M MISTRAL65 | 1SLM006500A1911 | 1SL1911A00 | | 1/10 |
| Transparent door 36M / 72M MISTRAL65 | 1SLM006500A1913 | 1SL1913A00 | | 1/14 |
| Transparent door 54M MISTRAL65 | 1SLM006500A1915 | 1SL1915A00 | | 1/8 |
| **Base plates** | | | | |
| Metal base plate 12M MISTRAL65 | 1SLM006500A1920 | 1SL1920A00 | | 1/12 |
| Metal base plate 2x12M MISTRAL65 | 1SLM006500A1921 | 1SL1921A00 | | 1/4 |
| Metal base plate 18M MISTRAL65 | 1SLM006500A1922 | 1SL1922A00 | | 1/8 |
| Metal base plate 2x18M MISTRAL65 | 1SLM006500A1923 | 1SL1923A00 | | 1/4 |
| **Blind panel** | | | | |
| Central blind panel 12M MISTRAL65 * | 1SL M006500A1945 | 1SL1945A00 | | 1/15 |
| Blind panel 12M MISTRAL65 | 1SL M006500A1946 | 1SL1946A00 | | 1/20 |
| Central blind panel 18M MISTRAL65 ** | 1SL M006500A1947 | 1SL1947A00 | | 1/30 |
| Blind panel 18M MISTRAL65 | 1SL M006500A1948 | 1SL1948A00 | | 1/30 |

* Blind panel for the central rowof MISTRAL65 36 modules (3 x 12)
** Blind panel for the central rowof MISTRAL65 54 modules (3 x 18)

# Enclosures
## Accessories for System pro *E* comfort MISTRAL65


2CSC001051F0014

Wall fixing brackets


2CSC001052F0014

Module cover


2CSC001053F0014

Lock


2CSC001054F0014

Cable gland


2CSC001055R0014

Adapter for trunking


2CSC001056F0014

Junction unit

| Description | Order details | | | Packaging |
|---|---|---|---|---|
| | Type | Article number | Price | |
| **Other accessories** | | | | |
| Wall fixing brackets (4 pcs) MISTRAL65 | 1SLM006500A1927 | 1SL1927A00 | | 1/30 |
| Module cover 12M MISTRAL65 | 1SLM006500A1929 | 1SL1929A00 | | 5/180 |
| Sealing kit MISTRAL65 | 1SLM006500A1950 | 1SL1950A00 | | 1/50 |
| Lock with key MISTRAL65 | 1SLM006500A1931 | 1SL1931A00 | | 1/10 |
| **Cable glands** | | | | |
| Cable gland Ø 16 | 1SL M006500A1935 | 1SL1935A00 | | 10/100 |
| Cable gland Ø 20 | 1SL M006500A1936 | 1SL1936A00 | | 10/100 |
| Cable gland Ø 25 | 1SL M006500A1937 | 1SL1937A00 | | 10/100 |
| Cable gland Ø 32 | 1SL M006500A1938 | 1SL1938A00 | | 5/50 |
| **Adapter** | | | | |
| Adapter for trunking MISTRAL65 | 1SL M006500A1942 | 1SL1942A00 | | 1/10 |
| **Junction unit** | | | | |
| Junction unit Ø 28,5 MISTRAL65 | 1SL M006500A1949 | 1SL1949A00 | | 10/400 |

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This switchboard houses all ABB's devices to perfection and can be fully accessorized. System pro *E* power, your enterprise has a new key resource.
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# Enclosures
## A wall-mounting cabinets IP43 indoor installation ⧈



| A wall-mounting cabinets IP43 ,, Cabinet depth 215 mm |
|---|
| Empty cabinets for surface mounting, flush mounting and partially recessed mounting in solid walls for indoor use |
| In up to 250 A (400 A)* |
| Enclosure and door made of sheet steel, with recessed plastic profile for double insulation |
| Rear wall made of plastic |
| RAL 9016, powder-coated |
| Prepared to be fitted with meter and distribution board panels/combination sets |
| Prepared to be fitted with CombiLine-M modules on the EDF mounting frame |
| Double-wing doors on cabinets with three or more panel widths |
| Door opening angle: 130 degree |
| With standard closure ZB113 |
| Flange openings are provided on the bottom and sides |
| Membrane flanges are mounted in the upper connection area |
| One nipple flange ZB40 also included |
| Knockouts for incoming cables are provided on the rear side |
| Cable inlets are located in the lower and upper connection area (per panel width) |

> For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system

*Depending on the switchgear assembly (TTA, PTTA), verification in accordance with DIN EN 60439-1 (VDE 0660-500) required



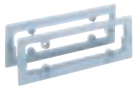
**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details




3/2A

| OH | GU | Height in mm | PW | SU | External dimensions H x W x D (mm) | A wall-mounting cabinets IP43 ⊡ Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|---|
| 00 | 3 | 500 | 1 | 36 | 500 x 300 x 215 | 1/00A | 2CPX036061R9999 | |
| | | | 2 | 72 | 500 x 550 x 215 | 2/00A | 2CPX036062R9999 | |
| | | | 3 | 108 | 500 x 800 x 215 | 3/00A | 2CPX036063R9999 | |
| | | | 4 | 144 | 500 x 1050 x 215 | 4/00A | 2CPX036064R9999 | |
| | | | 5 | 180 | 500 x 1300 x 215 | 5/00A | 2CPX036065R9999 | |
| 0 | 4 | 650 | 1 | 48 | 650 x 300 x 215 | 1/0A | 2CPX036001R9999 | |
| | | | 2 | 96 | 650 x 550 x 215 | 2/0A | 2CPX036002R9999 | |
| | | | 3 | 144 | 650 x 800 x 215 | 3/0A | 2CPX036003R9999 | |
| | | | 4 | 192 | 650 x 1050 x 215 | 4/0A | 2CPX036004R9999 | |
| | | | 5 | 240 | 650 x 1300 x 215 | 5/0A | 2CPX036005R9999 | |
| 1 | 5 | 800 | 1 | 60 | 800 x 300 x 215 | 1/1A | 2CPX036011R9999 | |
| | | | 2 | 120 | 800 x 550 x 215 | 2/1A | 2CPX036012R9999 | |
| | | | 3 | 180 | 800 x 800 x 215 | 3/1A | 2CPX036013R9999 | |
| | | | 4 | 240 | 800 x 1050 x 215 | 4/1A | 2CPX036014R9999 | |
| | | | 5 | 300 | 800 x 1300 x 215 | 5/1A | 2CPX036015R9999 | |
| 2 | 6 | 950 | 1 | 72 | 950 x 300 x 215 | 1/2A | 2CPX036021R9999 | |
| | | | 2 | 144 | 950 x 550 x 215 | 2/2A | 2CPX036022R9999 | |
| | | | 3 | 216 | 950 x 800 x 215 | 3/2A | 2CPX036023R9999 | |
| | | | 4 | 288 | 950 x 1050 x 215 | 4/2A | 2CPX036024R9999 | |
| | | | 5 | 360 | 950 x 1300 x 215 | 5/2A | 2CPX036025R9999 | |
| 3 | 7 | 1100 | 1 | 84 | 1100 x 300 x 215 | 1/3A | 2CPX036031R9999 | |
| | | | 2 | 168 | 1100 x 550 x 215 | 2/3A | 2CPX036032R9999 | |
| | | | 3 | 252 | 1100 x 800 x 215 | 3/3A | 2CPX036033R9999 | |
| | | | 4 | 336 | 1100 x 1050 x 215 | 4/3A | 2CPX036034R9999 | |
| | | | 5 | 420 | 1100 x 1300 x 215 | 5/3A | 2CPX036035R9999 | |
| 4 | 8 | 1250 | 1 | 96 | 1250 x 300 x 215 | 1/4A | 2CPX036041R9999 | |
| | | | 2 | 192 | 1250 x 550 x 215 | 2/4A | 2CPX036042R9999 | |
| | | | 3 | 288 | 1250 x 800 x 215 | 3/4A | 2CPX036043R9999 | |
| | | | 4 | 384 | 1250 x 1050 x 215 | 4/4A | 2CPX036044R9999 | |
| | | | 5 | 480 | 1250 x 1300 x 215 | 5/4A | 2CPX036045R9999 | |
| 5 | 9 | 1400 | 1 | 108 | 1400 x 300 x 215 | 1/5A | 2CPX036051R9999 | |
| | | | 2 | 216 | 1400 x 550 x 215 | 2/5A | 2CPX036052R9999 | |
| | | | 3 | 324 | 1400 x 800 x 215 | 3/5A | 2CPX036053R9999 | |
| | | | 4 | 432 | 1400 x 1050 x 215 | 4/5A | 2CPX036054R9999 | |
| | | | 5 | 540 | 1400 x 1300 x 215 | 5/5A | 2CPX036055R9999 | |

# Enclosures
## A wall-mounting cabinets IP43 accessories



ZX455



ZX454



ZX206P4



ZB43



ZB40



ZB113



ZB111



ZX456



ZH800



ZH220



ZH130

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| Insulating frame for cabinet to cabinet connection<br>For the side flange cut-outs (to maintain double insulation when cabinets are assembled next to each other)<br>(with connection material) | 1 | ZX455 | 2CPX039192R9999 | |
| Insulating frame for cabinet to cabinet connection<br>For the top/bottom flange cut-outs (to maintain double insulation when cabinets are assembled one above the other) | 1 | ZX454 | 2CPX039199R9999 | |
| External mounting brackets | 4 | ZX206P4 | 2CPX062491R9999 | |
| Membrane flange*<br>For inserting the cable | 1 | ZB43 | 2CPX038183R9999 | |
| Nipple flange*<br>For inserting the cable | 1 | ZB40 | 2CPX038195R9999 | |
| Standard closure* | 1 | ZB113 | 2CPX038478R9999 | |
| Closure with lock<br>With 2 keys | 1 | ZB111 | 2CPX038479R9999 | |
| **Espagnolette closure** | | | | |
| In conjunction standard closure and lock for retrofitting into A-, B- and U-cabinets | | | | |
| For overall height 0 (4 GU) | 1 | ZX456 | 2CPX039586R9999 | |
| For overall height 1 (5 GU) | 1 | ZX457 | 2CPX039587R9999 | |
| For overall height 2 (6 GU) | 1 | ZX458 | 2CPX039588R9999 | |
| For overall height 3 (7 GU) | 1 | ZX459 | 2CPX039589R9999 | |
| For overall height 4 (8 GU) | 1 | ZX460 | 2CPX039590R9999 | |
| For overall height 5 (9 GU) | 1 | ZX461 | 2CPX039591R9999 | |
| Set for installing<br>Actuation options in conjunction with ZH220/ZH221/ZH222 | 1 | ZH800 | 2CPX038544R9999 | |
| Latch plate for double-bit operating pin<br>(order installation set ZH800 separately)<br>3 and 5 mm | 1 | ZH220 | 2CPX045700R9999 | |
| Operating pins | | | | |
| Double-bit 3 mm | 1 | ZH130 | 2CPX060490R9999 | |
| Double-bit 5 mm | 1 | ZH131 | 2CPX060491R9999 | |



ZH221



ZH132



ZH134



ZH137



ZH222



ZH138



ZH139



ZH140



ZH141



ZH228



ZH142



ZH227



ZH203

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| Latch plate<br>For triangular, square and Daimler-Benz operating pins<br>(also order ZH800 installation set for A or U cabinets) | 1 | ZH221 | 2CPX045701R9999 | |
| **Operating pins** | | | | |
| Triangular 7 mm | 1 | ZH132 | 2CPX060492R9999 | |
| Triangular 8 mm | 1 | ZH133 | 2CPX060493R9999 | |
| Square 6 mm | 1 | ZH134 | 2CPX060494R9999 | |
| Square 7 mm | 1 | ZH135 | 2CPX060495R9999 | |
| Square 8 mm | 1 | ZH136 | 2CPX060496R9999 | |
| Daimler-Benz | 1 | ZH137 | 2CPX060497R9999 | |
| Latch plate<br>For T-handle or latch handle<br>(order installation set ZH800 separately) | 1 | ZH222 | 2CPX045702R9999 | |
| **T-handle** | | | | |
| Without lock | 1 | ZH138 | 2CPX060498R9999 | |
| With lock | 1 | ZH139 | 2CPX060499R9999 | |
| **Latch handle** | | | | |
| Without lock | 1 | ZH140 | 2CPX060500R9999 | |
| With lock | 1 | ZH141 | 2CPX060501R9999 | |
| Swivel handle for semi-cylinder<br>40 mm (30/10) with lead sealable cap | 1 | ZH228 | 2CPX045709R9999 | |
| Dummy insert<br>(instead of semi-cylinder) | 1 | ZH142 | 2CPX060502R9999 | |
| Swivel handle<br>With cabinet handle Berlin | 1 | ZH227 | 2CPX045708R9999 | |
| Swivel handle<br>With closure E0 12 | 1 | ZH203 | 2CPX045707R9999 | |

# Enclosures
## A wall-mounting cabinets IP43 accessories



ZX456



ZX139LR



ZX464



KB19



KB219



KBS9



KBW1



ZA20



ZA120

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Espagnolette closure** | | | | |
| in conjunction with ZH203, ZH220, ZH221, ZH222, ZH227 and ZH228 | | | | |
| For overall height 0 (4 GU) | 1 | ZX440 | 2CPX039570R9999 | |
| For overall height 1 (5 GU) | 1 | ZX441 | 2CPX039571R9999 | |
| For overall height 2 (6 GU) | 1 | ZX442 | 2CPX039572R9999 | |
| For overall height 3 (7 GU) | 1 | ZX443 | 2CPX039573R9999 | |
| For overall height 4 (8 GU) | 1 | ZX444 | 2CPX039574R9999 | |
| For overall height 5 (9 GU) | 1 | ZX445 | 2CPX039575R9999 | |
| Door hinge<br>(plastic)* | 2 | ZX139LR | 2CPX039139R9999 | |
| Door bolt for double-wing doors*<br>For cabinets with three or more panel widths | 1 | ZX464 | 2CPX039596R9999 | |
| **Cable entry covers** | | | | |
| with end plates and mounting brackets. Colour RAL9016 adjusted to the colour of the cabinets | | | | |
| 1 panel wide, width 300 mm | 1 | KB19 | 2CPX044049R9999 | |
| 2 panel wide, width 550 mm | 1 | KB29 | 2CPX044050R9999 | |
| 3 panel wide, width 800 mm | 1 | KB39 | 2CPX044051R9999 | |
| 4 panel wide, width 1050 mm | 1 | KB49 | 2CPX044052R9999 | |
| 5 panel wide, width 1300 mm | 1 | KB59 | 2CPX044053R9999 | |
| Profile<br>Colour RAL9016<br>Width 2000 mm | 1 | KB219 | 2CPX044055R9999 | |
| End plate left/right<br>Colour RAL9016<br>1 set, 2 pcs. | 1 | KBS9 | 2CPX044057R9999 | |
| Mounting brackets | 1 | KBW1 | 2CPX044058R9999 | |
| Spray paint can<br>Colour RAL 9016, 150 ml | 1 | ZA20 | 2CPX038229R9999 | |
| Touch-up applicator<br>Colour RAL 9016, 12 ml | 1 | ZA120 | 2CPX039043R9999 | |

*Spare part included in the scope of delivery

ZA6



ZA5

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Accessories for all cabinet types** | | | | |
| Document holder DIN A4<br>Self-adhesive with transparent sleeve | 1 | ZA6 | 2CPX038227R9999 | |
| | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve<br>and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| Document holder DIN A4 | 1 | ZA13 | 2CPX038233R9999 | |
| Self-adhesive | 10 | ZA13P10 | 2CPX062381R9999 | |
| Document holder DIN A5 | 1 | ZA5 | 2CPX038228R9999 | |
| Self-adhesive | 10 | ZA5P10 | 2CPX062382R9999 | |

# Enclosures
## A wall-mounting cabinets IP43 sheet steel doors




**T20**

| PW | OH | To be used with... A cabinet | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| 1 | 00 | 1/00A | T100 | 2CPX062057R9999 | |
| 2 | | 2/00A | T200 | 2CPX062058R9999 | |
| 3 | | 3/00A | T300 | 2CPX062072R9999 | |
| 4 | | 4/00A | T400 | 2CPX062073R9999 | |
| 5 | | 5/00A | T500 | 2CPX062074R9999 | |
| 1 | 0 | 1/0A | T10 | 2CPX062059R9999 | |
| 2 | | 2/0A | T20 | 2CPX062060R9999 | |
| 3 | | 3/0A | T30 | 2CPX062061R9999 | |
| 4 | | 4/0A | T40 | 2CPX062075R9999 | |
| 5 | | 5/0A | T50 | 2CPX062076R9999 | |
| 1 | 1 | 1/1A | T11 | 2CPX062062R9999 | |
| 2 | | 2/1A | T21 | 2CPX062063R9999 | |
| 3 | | 3/1A | T31 | 2CPX062064R9999 | |
| 4 | | 4/1A | T41 | 2CPX062065R9999 | |
| 5 | | 5/1A | T51 | 2CPX062077R9999 | |
| 1 | 2 | 1/2A | T12 | 2CPX062066R9999 | |
| 2 | | 2/2A | T22 | 2CPX062067R9999 | |
| 3 | | 3/2A | T32 | 2CPX062068R9999 | |
| 4 | | 4/2A | T42 | 2CPX062069R9999 | |
| 5 | | 5/2A | T52 | 2CPX062078R9999 | |
| 1 | 3 | 1/3A | T13 | 2CPX062079R9999 | |
| 2 | | 2/3A | T23 | 2CPX062070R9999 | |
| 3 | | 3/3A | T33 | 2CPX062071R9999 | |
| 4 | | 4/3A | T43 | 2CPX062080R9999 | |
| 5 | | 5/3A | T53 | 2CPX062081R9999 | |
| 1 | 4 | 1/4A | T14 | 2CPX062082R9999 | |
| 2 | | 2/4A | T24 | 2CPX062083R9999 | |
| 3 | | 3/4A | T34 | 2CPX062084R9999 | |
| 4 | | 4/4A | T44 | 2CPX062085R9999 | |
| 5 | | 5/4A | T54 | 2CPX062086R9999 | |
| 1 | 5 | 1/5A | T15 | 2CPX062087R9999 | |
| 2 | | 2/5A | T25 | 2CPX062088R9999 | |
| 3 | | 3/5A | T35 | 2CPX062089R9999 | |
| 4 | | 4/5A | T45 | 2CPX062090R9999 | |
| 5 | | 5/5A | T55 | 2CPX062091R9999 | |

# Enclosures
## A wall-mounting cabinets IP43 transparent doors



2CPX029036R9999

TTS42

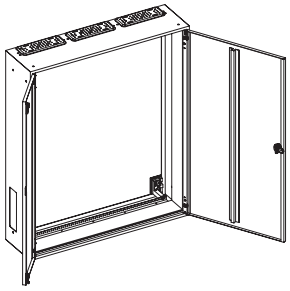
| PW | OH | To be used with... A cabinet | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| 1 | 00 | 1/00A | TTS100 | 2CPX062021R9999 | |
| 2 | | 2/00A | TTS200 | 2CPX062022R9999 | |
| 3 | | 3/00A | TTS300 | 2CPX062023R9999 | |
| 4 | | 4/00A | TTS400 | 2CPX062024R9999 | |
| 5 | | 5/00A | TTS500 | 2CPX062025R9999 | |
| 1 | 0 | 1/0A | TTS10 | 2CPX062026R9999 | |
| 2 | | 2/0A | TTS20 | 2CPX062027R9999 | |
| 3 | | 3/0A | TTS30 | 2CPX062028R9999 | |
| 4 | | 4/0A | TTS40 | 2CPX062029R9999 | |
| 5 | | 5/0A | TTS50 | 2CPX062030R9999 | |
| 1 | 1 | 1/1A | TTS11 | 2CPX062031R9999 | |
| 2 | | 2/1A | TTS21 | 2CPX062032R9999 | |
| 3 | | 3/1A | TTS31 | 2CPX062033R9999 | |
| 4 | | 4/1A | TTS41 | 2CPX062034R9999 | |
| 5 | | 5/1A | TTS51 | 2CPX062035R9999 | |
| 1 | 2 | 1/2A | TTS12 | 2CPX062036R9999 | |
| 2 | | 2/2A | TTS22 | 2CPX062037R9999 | |
| 3 | | 3/2A | TTS32 | 2CPX062038R9999 | |
| 4 | | 4/2A | TTS42 | 2CPX062039R9999 | |
| 5 | | 5/2A | TTS52 | 2CPX062040R9999 | |
| 1 | 3 | 1/3A | TTS13 | 2CPX062041R9999 | |
| 2 | | 2/3A | TTS23 | 2CPX062042R9999 | |
| 3 | | 3/3A | TTS33 | 2CPX062043R9999 | |
| 4 | | 4/3A | TTS43 | 2CPX062044R9999 | |
| 5 | | 5/3A | TTS53 | 2CPX062045R9999 | |
| 1 | 4 | 1/4A | TTS14 | 2CPX062046R9999 | |
| 2 | | 2/4A | TTS24 | 2CPX062047R9999 | |
| 3 | | 3/4A | TTS34 | 2CPX062048R9999 | |
| 4 | | 4/4A | TTS44 | 2CPX062049R9999 | |
| 5 | | 5/4A | TTS54 | 2CPX062050R9999 | |
| 1 | 5 | 1/5A | TTS15 | 2CPX062051R9999 | |
| 2 | | 2/5A | TTS25 | 2CPX062052R9999 | |
| 3 | | 3/5A | TTS35 | 2CPX062053R9999 | |
| 4 | | 4/5A | TTS45 | 2CPX062054R9999 | |
| 5 | | 5/5A | TTS55 | 2CPX062055R9999 | |

# Enclosures
## B wall-mounting cabinets IP43 indoor installation ⏚

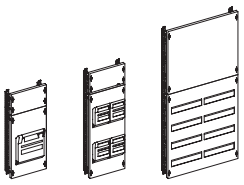


| B wall-mounting cabinets IP43 ., Cabinet depth 215 mm |
|---|
| Empty cabinets for surface, flush and partially recessed mounting |
| In up to 250 A (400 A)* |
| Enclosure and door made of sheet steel |
| Rear wall made of plastic |
| RAL 9016 powder-coated |
| Prepared to be fitted with a mounting plate made of galvanised sheet steel |
| Prepared to be fitted with distribution board panels/combination sets |
| Prepared to be fitted with CombiLine-M modules on the EDF mounting frame |
| Double-wing doors on cabinets with three or more panel widths |
| Door opening angle: 130 degree |
| With standard closure ZB113 |
| Flange openings on the sides, open at the bottom. Nipple flanges ZB40 included |
| Membrane flanges are mounted in the upper connection area |

*Depending on the switchgear assembly (TTA, PTTA), verification in accordance with DIN EN 60439-1 (VDE 0660-500) required



**B wall-mounting cabinets IP43 ⏚, Cabinet depth 215 mm**



**Distribution board panels/combination sets CombiLine modules on EDF mounting frame, see chapter distribution panel system**



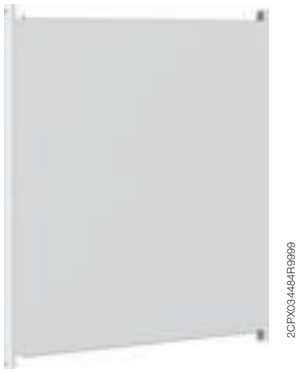
**Mounting plate**

# Enclosures

## B wall-mounting cabinets IP43 / mounting plates indoor installation ⏚




3/2B




GM32

| | | Height | | | External dimens. | B wall-mounting cabinets IP43 ▣ | | | External dimens. | Mounting plates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Order details | | | | Order details | | |
| GU | OH | in mm | PW | SU | H x W x D (mm) | Type | Order code | Price | H x W x D (mm) | Type | Order code | Price |
| 3 | 00 | 500 | 1 | 36 | 500 x 300 x 215 | 1/00B | 2CPX036360R9999 | | - | - | - | |
| | | | 2 | 72 | 500 x 550 x 215 | 2/00B | 2CPX036361R9999 | | - | - | - | |
| | | | 3 | 108 | 500 x 800 x 215 | 3/00B | 2CPX036362R9999 | | - | - | - | |
| 4 | 0 | 650 | 1 | 48 | 650 x 300 x 215 | 1/0B | 2CPX036370R9999 | | - | - | - | |
| | | | 2 | 96 | 650 x 550 x 215 | 2/0B | 2CPX036371R9999 | | 600 x 500 | GM20 | 2CPX034473R9999 | |
| | | | 3 | 144 | 650 x 800 x 215 | 3/0B | 2CPX036372R9999 | | 600 x 750 | GM30 | 2CPX034474R9999 | |
| | | | 4 | 192 | 650 x 1050 x 215 | 4/0B | 2CPX036373R9999 | | 600 x 1000 | GM40 | 2CPX034475R9999 | |
| | | | 5 | 240 | 650 x 1300 x 215 | 5/0B | 2CPX036374R9999 | | 600 x 1250 | GM50 | 2CPX034476R9999 | |
| 5 | 1 | 800 | 1 | 60 | 800 x 300 x 215 | 1/1B | 2CPX036380R9999 | | - | - | - | |
| | | | 2 | 120 | 800 x 550 x 215 | 2/1B | 2CPX036381R9999 | | - | - | - | |
| | | | 3 | 180 | 800 x 800 x 215 | 3/1B | 2CPX036382R9999 | | - | - | - | |
| | | | 4 | 240 | 800 x 1050 x 215 | 4/1B | 2CPX036383R9999 | | - | - | - | |
| | | | 5 | 300 | 800 x 1300 x 215 | 5/1B | 2CPX036384R9999 | | - | - | - | |
| 6 | 2 | 950 | 1 | 72 | 950 x 300 x 215 | 1/2B | 2CPX036390R9999 | | 900 x 250 | GM12 | 2CPX034482R9999 | |
| | | | 2 | 144 | 950 x 550 x 215 | 2/2B | 2CPX036391R9999 | | 900 x 500 | GM22 | 2CPX034483R9999 | |
| | | | 3 | 216 | 950 x 800 x 215 | 3/2B | 2CPX036392R9999 | | 900 x 750 | GM32 | 2CPX034484R9999 | |
| | | | 4 | 288 | 950 x 1050 x 215 | 4/2B | 2CPX036393R9999 | | 900 x 1000 | GM42 | 2CPX034485R9999 | |
| | | | 5 | 360 | 950 x 1300 x 215 | 5/2B | 2CPX036394R9999 | | 900 x 1250 | GM52 | 2CPX034486R9999 | |
| 7 | 3 | 1100 | 1 | 84 | 1100 x 300 x 215 | 1/3B | 2CPX036400R9999 | | - | - | - | |
| | | | 2 | 168 | 1100 x 550 x 215 | 2/3B | 2CPX036401R9999 | | - | - | - | |
| | | | 3 | 252 | 1100 x 800 x 215 | 3/3B | 2CPX036402R9999 | | - | - | - | |
| | | | 4 | 336 | 1100 x 1050 x 215 | 4/3B | 2CPX036403R9999 | | - | - | - | |
| | | | 5 | 420 | 1100 x 1300 x 215 | 5/3B | 2CPX036404R9999 | | - | - | - | |
| 8 | 4 | 1250 | 1 | 96 | 1250 x 300 x 215 | 1/4B | 2CPX036410R9999 | | - | - | - | |
| | | | 2 | 192 | 1250 x 550 x 215 | 2/4B | 2CPX036411R9999 | | 1200 x 500 | GM24 | 2CPX034488R9999 | |
| | | | 3 | 288 | 1250 x 800 x 215 | 3/4B | 2CPX036412R9999 | | 1200 x 750 | GM34 | 2CPX034489R9999 | |
| | | | 4 | 384 | 1250 x 1050 x 215 | 4/4B | 2CPX036413R9999 | | 1200 x 1000 | GM44 | 2CPX034490R9999 | |
| | | | 5 | 480 | 1250 x 1300 x 215 | 5/4B | 2CPX036414R9999 | | 1200 x 1250 | GM54 | 2CPX034491R9999 | |
| 9 | 5 | 1400 | 1 | 108 | 1400 x 300 x 215 | 1/5B | 2CPX036420R9999 | | - | - | - | |
| | | | 2 | 216 | 1400 x 550 x 215 | 2/5B | 2CPX036421R9999 | | 1350 x 500 | GM25 | 2CPX034493R9999 | |
| | | | 3 | 324 | 1400 x 800 x 215 | 3/5B | 2CPX036422R9999 | | 1350 x 750 | GM35 | 2CPX034494R9999 | |
| | | | 4 | 432 | 1400 x 1050 x 215 | 4/5B | 2CPX036423R9999 | | 1350 x 1000 | GM45 | 2CPX034495R9999 | |
| | | | 5 | 540 | 1400 x 1300 x 215 | 5/5B | 2CPX036424R9999 | | 1350 x 1250 | GM55 | 2CPX034496R9999 | |

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## B wall-mounting cabinets IP43 accessories



ZP74P4



ZX131



ZB43



ZB40



ZB113 ZB111



ZX456



ZH800



ZH227



ZH203



ZH228

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| External mounting brackets | 4 | ZP74P4 | 2CPX062636R9999 | |
| Connection set<br>For connecting cabinets in series, 1 set | 1 | ZX131 | 2CPX039131R9999 | |
| Membrane flange*<br>For inserting the cable | 1 | ZB43 | 2CPX038183R9999 | |
| Nipple flange*<br>For inserting the cable | 1 | ZB40 | 2CPX038195R9999 | |
| Standard closure* | 1 | ZB113 | 2CPX038478R9999 | |
| Closure with lock with 2 keys | 1 | ZB111 | 2CPX038479R9999 | |
| **Espagnolette closure** | | | | |
| *In conjunction with standard closure and closure with lock (ZB113, ZB111) | | | | |
| For overall height 0 (4 GU) | 1 | ZX456 | 2CPX039586R9999 | |
| For overall height 1 (5 GU) | 1 | ZX457 | 2CPX039587R9999 | |
| For overall height 2 (6 GU) | 1 | ZX458 | 2CPX039588R9999 | |
| For overall height 3 (7 GU) | 1 | ZX459 | 2CPX039589R9999 | |
| For overall height 4 (8 GU) | 1 | ZX460 | 2CPX039590R9999 | |
| For overall height 5 (9 GU) | 1 | ZX461 | 2CPX039591R9999 | |
| Set for installing<br>Actuation options in conjunction with ZH220/ZH221/ZH222 | 1 | ZH800 | 2CPX038544R9999 | |
| Swivel handle<br>With cabinet handle Berlin | 1 | ZH227 | 2CPX045708R9999 | |
| Swivel handle<br>Closure E0 12 | 1 | ZH203 | 2CPX045707R9999 | |
| Swivel handle<br>For semi-cylinder 40 mm (30/10),<br>with lead sealable cap | 1 | ZH228 | 2CPX045709R9999 | |

*Spare part included in the scope of delivery

# Enclosures
## B wall-mounting cabinets IP43 accessories / cable entry covers


ZX440


ZA20


ZA120


KB19


KB219


KBS9


KBW1


ZA6


ZA5

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **B wall-mounting cabinet** | | | | |
| **Espagnolette closure** in conjunction with ZH203, ZH220, ZH221, ZH222, ZH227 and ZH228 closure system | | | | |
| For overall height 0 (4 GU) | 1 | ZX440 | 2CPX039570R9999 | |
| For overall height 1 (5 GU) | 1 | ZX441 | 2CPX039571R9999 | |
| For overall height 2 (6 GU) | 1 | ZX442 | 2CPX039572R9999 | |
| For overall height 3 (7 GU) | 1 | ZX443 | 2CPX039573R9999 | |
| For overall height 4 (8 GU) | 1 | ZX444 | 2CPX039574R9999 | |
| For overall height 5 (9 GU) | 1 | ZX445 | 2CPX039575R9999 | |
| Spray paint can<br>Colour RAL 9016, 150 ml | 1 | ZA20 | 2CPX038229R9999 | |
| Touch-up applicator<br>Colour RAL 9016, 12 ml | 1 | ZA120 | 2CPX039043R9999 | |
| **Cable entry covers** with end plates and mounting brackets<br>Colour RAL9016 adjusted to the colour of the cabinets | | | | |
| 1 panel wide, width 300 mm | 1 | KB19 | 2CPX044049R9999 | |
| 2 panel wide, width 550 mm | 1 | KB29 | 2CPX044050R9999 | |
| 3 panel wide, width 800 mm | 1 | KB39 | 2CPX044051R9999 | |
| 4 panel wide, width 1050 mm | 1 | KB49 | 2CPX044052R9999 | |
| 4 panel wide, width 1300 mm | 1 | KB59 | 2CPX044053R9999 | |
| Profile<br>Colour RAL9016<br>Width 2000 mm | 1 | KB219 | 2CPX044055R9999 | |
| End plate left/right<br>Colour RAL9016<br>1 set, 2 pcs. | 1 | KBS9 | 2CPX044057R9999 | |
| Mounting brackets | 1 | KBW1 | 2CPX044058R9999 | |
| Document holder DIN A4 | 1 | ZA6 | 2CPX038227R9999 | |
| Self-adhesive with transparent sleeve | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| Document holder DIN A4 | 1 | ZA13 | 2CPX038233R9999 | |
| Self-adhesive | 10 | ZA13P10 | 2CPX062381R9999 | |
| Document holder DIN A5 | 1 | ZA5 | 2CPX038228R9999 | |
| Self-adhesive | 10 | ZA5P10 | 2CPX062382R9999 | |

# Enclosures
## B wall-mounting cabinets IP43 sheet steel doors




T20

| PW | OH | To be used with... B wall-mounting cabinet | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| 1 | 00 | 1/00B | T100 | 2CPX062057R9999 | |
| 2 | | 2/00B | T200 | 2CPX062058R9999 | |
| 3 | | 3/00B | T300 | 2CPX062072R9999 | |
| 4 | | - | - | - | |
| 5 | | - | - | - | |
| 1 | 0 | 1/0B | T10 | 2CPX062059R9999 | |
| 2 | | 2/0B | T20 | 2CPX062060R9999 | |
| 3 | | 3/0B | T30 | 2CPX062061R9999 | |
| 4 | | 4/0B | T40 | 2CPX062075R9999 | |
| 5 | | 5/0B | T50 | 2CPX062076R9999 | |
| 1 | 1 | 1/1B | T11 | 2CPX062062R9999 | |
| 2 | | 2/1B | T21 | 2CPX062063R9999 | |
| 3 | | 3/1B | T31 | 2CPX062064R9999 | |
| 4 | | 4/1B | T41 | 2CPX062065R9999 | |
| 5 | | 5/1B | T51 | 2CPX062077R9999 | |
| 1 | 2 | 1/2B | T12 | 2CPX062066R9999 | |
| 2 | | 2/2B | T22 | 2CPX062067R9999 | |
| 3 | | 3/2B | T32 | 2CPX062068R9999 | |
| 4 | | 4/2B | T42 | 2CPX062069R9999 | |
| 5 | | 5/2B | T52 | 2CPX062078R9999 | |
| 1 | 3 | 1/3B | T13 | 2CPX062079R9999 | |
| 2 | | 2/3B | T23 | 2CPX062070R9999 | |
| 3 | | 3/3B | T33 | 2CPX062071R9999 | |
| 4 | | 4/3B | T43 | 2CPX062080R9999 | |
| 5 | | 5/3B | T53 | 2CPX062081R9999 | |
| 1 | 4 | 1/4B | T14 | 2CPX062082R9999 | |
| 2 | | 2/4B | T24 | 2CPX062083R9999 | |
| 3 | | 3/4B | T34 | 2CPX062084R9999 | |
| 4 | | 4/4B | T44 | 2CPX062085R9999 | |
| 5 | | 5/4B | T54 | 2CPX062086R9999 | |
| 1 | 5 | 1/5B | T15 | 2CPX062087R9999 | |
| 2 | | 2/5B | T25 | 2CPX062088R9999 | |
| 3 | | 3/5B | T35 | 2CPX062089R9999 | |
| 4 | | 4/5B | T45 | 2CPX062090R9999 | |
| 5 | | 5/5B | T55 | 2CPX062091R9999 | |

# Enclosures
## B wall-mounting cabinets IP43 transparent doors




TTS42

| PW | OH | To be used with... B wall-mounting cabinet | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| 1 | 00 | 1/00B | TTS100 | 2CPX062021R9999 | |
| 2 | | 2/00B | TTS200 | 2CPX062022R9999 | |
| 3 | | 3/00B | TTS300 | 2CPX062023R9999 | |
| 4 | | - | - | - | |
| 5 | | - | - | - | |
| 1 | 0 | 1/0B | TTS10 | 2CPX062026R9999 | |
| 2 | | 2/0B | TTS20 | 2CPX062027R9999 | |
| 3 | | 3/0B | TTS30 | 2CPX062028R9999 | |
| 4 | | 4/0B | TTS40 | 2CPX062029R9999 | |
| 5 | | 5/0B | TTS50 | 2CPX062030R9999 | |
| 1 | 1 | 1/1B | TTS11 | 2CPX062031R9999 | |
| 2 | | 2/1B | TTS21 | 2CPX062032R9999 | |
| 3 | | 3/1B | TTS31 | 2CPX062033R9999 | |
| 4 | | 4/1B | TTS41 | 2CPX062034R9999 | |
| 5 | | 5/1B | TTS51 | 2CPX062035R9999 | |
| 1 | 2 | 1/2B | TTS12 | 2CPX062036R9999 | |
| 2 | | 2/2B | TTS22 | 2CPX062037R9999 | |
| 3 | | 3/2B | TTS32 | 2CPX062038R9999 | |
| 4 | | 4/2B | TTS42 | 2CPX062039R9999 | |
| 5 | | 5/2B | TTS52 | 2CPX062040R9999 | |
| 1 | 3 | 1/3B | TTS13 | 2CPX062041R9999 | |
| 2 | | 2/3B | TTS23 | 2CPX062042R9999 | |
| 3 | | 3/3B | TTS33 | 2CPX062043R9999 | |
| 4 | | 4/3B | TTS43 | 2CPX062044R9999 | |
| 5 | | 5/3B | TTS53 | 2CPX062045R9999 | |
| 1 | 4 | 1/4B | TTS14 | 2CPX062046R9999 | |
| 2 | | 2/4B | TTS24 | 2CPX062047R9999 | |
| 3 | | 3/4B | TTS34 | 2CPX062048R9999 | |
| 4 | | 4/4B | TTS44 | 2CPX062049R9999 | |
| 5 | | 5/4B | TTS54 | 2CPX062050R9999 | |
| 1 | 5 | 1/5B | TTS15 | 2CPX062051R9999 | |
| 2 | | 2/5B | TTS25 | 2CPX062052R9999 | |
| 3 | | 3/5B | TTS35 | 2CPX062053R9999 | |
| 4 | | 4/5B | TTS45 | 2CPX062054R9999 | |
| 5 | | 5/5B | TTS55 | 2CPX062055R9999 | |

# Enclosures
## HS floor-standing cabinets IP43 indoor installation



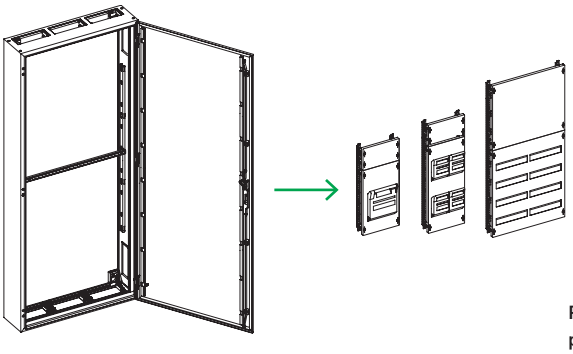

3/8HS

| HS floor-standing cabinetsIP43 ,, Cabinet depth 225 mm, Cabinet height 1850 mm |
|---|
| with mounted EDF installation set and touch guard |
| In up to 400 A |
| Enclosure and door made of sheet steel |
| RAL 7035 powder-coated |
| Flange openings per panel width at the top and bottom |
| Door opening angle: 160 degree |
| Cabinets 1 to 3 panels wide: single door hinged right,<br>Cabinets 4 panels wide: double-wing door |
| Doors with espagnolette closure |
| Standard closure: Double-bit 3 mm |
| Prepared to be fitted with CombiLine-M modules on the EDF mounting frame |
| Prepared to be fitted with distribution board panels/combination sets |
| With external fixing brackets in the scope of delivery |
| Flanges must be ordered separately |
| Plinths must be ordered separately |

**HS floor-standing cabinets with mounted EDF installation set and touch guard, IP43**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12 | 8 | 1 | 144 | 1850 x 300 x 225 | 1/8HS | 2CPX034326R9999 | |
| | | 2 | 288 | 1850 x 550 x 225 | 2/8HS | 2CPX034327R9999 | |
| | | 3 | 432 | 1850 x 800 x 225 | 3/8HS | 2CPX034328R9999 | |
| | | 4 | 576 | 1850 x 1050 x 225 | 4/8HS | 2CPX034329R9999 | |

> For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system
> An assembly set ZB15 is required per panel width (250 mm) when installing meter panels in floor-standing cabinets
> For floor-standing cabinet accessories, please order plinth and flange separately



HS floor-standing cabinets

**Prepared for the installation of distribution board panels, combination sets and modules on the EDF mounting frame. Meter panels can also be installed using the ZB15 assembly set.**

# Enclosures
## H floor-standing cabinets IP43 indoor installation ⏚



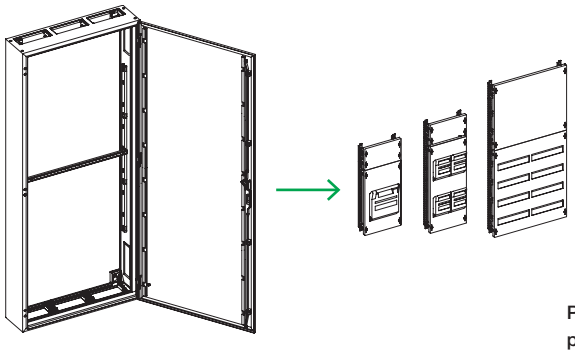

3/8H

| H floor-standing cabinets IP43 ., Cabinet depth 225 mm, Cabinet height 1850 mm |
|---|
| with mounted EDF installation set and touch guard |
| In up to 400 A |
| Enclosure and door made of sheet steel |
| RAL 7035 powder-coated |
| Flange openings per panel width at the top and bottom |
| Door opening angle: 160 degree |
| Cabinets 1 to 3 panels wide: single door hinged right,<br>Cabinets 4 panels wide: double-wing door |
| Doors with espagnolette closure |
| Standard closure: Double-bit 3 mm |
| Prepared to be fitted with CombiLine-M modules on the EDF mounting frame |
| Prepared to be fitted with distribution board panels/combination sets |
| With external fixing brackets in the scope of delivery |
| Flanges must be ordered separately |
| Plinths must be ordered separately |

**H floor-standing cabinets with mounted EDF installation set and touch guard, IP43 ⏚**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12 | 8 | 1 | 144 | 1850 x 300 x 225 | - | 1/8H | 2CPX034321R9999 | |
| | | 2 | 288 | 1850 x 550 x 225 | - | 2/8H | 2CPX034322R9999 | |
| | | 3 | 432 | 1850 x 800 x 225 | - | 3/8H | 2CPX034323R9999 | |
| | | 4 | 576 | 1850 x 1050 x 225 | - | 4/8H | 2CPX034324R9999 | |

> For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system
> For floor-standing cabinet accessories,, please order plinth and flange separately



H floor-standing cabinets

**Prepared for the installation of distribution board panels, combination sets and modules on the EDF mounting frame. With the mounting set ZB15 using the ZB15 assembly set.**

# Enclosures
## H and HS floor-standing cabinets IP43 accessories


ZH220


ZH130


ZH131


ZH221


ZH132


ZH134


ZH137


ZH160


ZH157


ZH162


ZH165


ZH91


ZH222


ZH138


ZH139

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Latch plate**<br>For double-bit operating pin<br>3 mm (standard) and<br>5 mm (order installation set ZH800 separately) | 1 | ZH220 | 2CPX045700R9999 | |
| **Operating pin** | | | | |
| Double-bit, 3 mm* | 1 | ZH130 | 2CPX060490R9999 | |
| Double-bit 5 mm | 1 | ZH131 | 2CPX060491R9999 | |
| Latch plate<br>For triangular, square<br>and Daimler-Benz operating pins | 1 | ZH221 | 2CPX045701R9999 | |
| **Operating pin** | | | | |
| Triangular 7 mm | 1 | ZH132 | 2CPX060492R9999 | |
| Triangular 8 mm | 1 | ZH133 | 2CPX060493R9999 | |
| Square 6 mm | 1 | ZH134 | 2CPX060494R9999 | |
| Square 7 mm | 1 | ZH135 | 2CPX060495R9999 | |
| Square 8 mm | 1 | ZH136 | 2CPX060496R9999 | |
| Daimler-Benz | 1 | ZH137 | 2CPX060497R9999 | |
| **Operating keys** | | | | |
| Double-bit, 3 mm* | 1 | ZH160 | 2CPX060660R9999 | |
| Double bit 5 mm | 1 | ZH161 | 2CPX060661R9999 | |
| Triangular 7 mm | 1 | ZH157 | 2CPX060657R9999 | |
| Triangular 8 mm | 1 | ZH158 | 2CPX060658R9999 | |
| Square 6 mm | 1 | ZH162 | 2CPX060662R9999 | |
| Square 7 mm | 1 | ZH163 | 2CPX060663R9999 | |
| Square 8 mm | 1 | ZH164 | 2CPX060664R9999 | |
| Daimler-Benz | 1 | ZH165 | 2CPX060665R9999 | |
| Universal key<br>Double-bit 3 mm/5 mm<br>Triangular 8 mm,<br>Square 6 mm/8 mm | 1 | ZH91 | 2CPX066091R9999 | |
| Latch plate<br>For T-handle or latch handle<br>(order installation set ZH800 separately) | 1 | ZH222 | 2CPX045702R9999 | |
| **T-handle** | | | | |
| Without lock, complete | 1 | ZH138 | 2CPX060498R9999 | |
| With lock, complete | 1 | ZH139 | 2CPX060499R9999 | |

*Spare part included in the scope of delivery


ZH140


ZH141


ZH223


ZH142


ZP55


ZP56


ZP57


ZP58


ZW125P4


ZH148


ZW195

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Latch handle** | | | | |
| Without lock, complete | 1 | ZH140 | 2CPX060500R9999 | |
| With lock, complete | 1 | ZH141 | 2CPX060501R9999 | |
| Swivel handle for semi-cylinder<br>40 mm (30/10) with lead sealable cap | 1 | ZH223 | 2CPX045703R9999 | |
| Dummy insert<br>(instead of a semi-cylinder) | 1 | ZH142 | 2CPX060502R9999 | |
| **Flanges** | | | | |
| Attention: Always order flanges separately! | | | | |
| Closing flange | 1 | ZP55 | 2CPX038536R9999 | |
| | 10 | ZP55P10 | 2CPX062450R9999 | |
| Flange for M screw fittings<br>1 x M63 / M50<br>2 x M32 / M20 | 1 | ZP56 | 2CPX038534R9999 | |
| | 10 | ZP56P10 | 2CPX062451R9999 | |
| Flange for M screw fittings<br>2 x M32 / M20<br>4 x M25 / 5 x M20 | 1 | ZP57 | 2CPX038535R9999 | |
| | 10 | ZP57P10 | 2CPX062452R9999 | |
| Membrane flange | 1 | ZP58 | 2CPX038538R9999 | |
| | 10 | ZP58P10 | 2CPX062453R9999 | |
| External mounting brackets* | 4 | ZW125P4 | 2CPX062461R9999 | |
| Espagnolette guide*<br>With fastening material | 1 | ZH148 | 2CPX060508R9999 | |
| Rubber seal*<br>For double-wing door | 1 | ZW195 | 2CPX039395R9999 | |

*Spare part included in the scope of delivery

# Enclosures
## H and HS floor-standing cabinets IP43 accessories



ZW104P2



ZW41



ZL8



ZW106P3



ZW190



ZW191



ZA6



ZA5



ZA18



ZA116

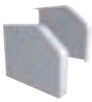
| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Mounting brackets*<br>(2 pcs, with fastening material)<br>Required for fastening the center support rail | 2 | ZW104P2 | 2CPX062459R9999 | |
| **Centre support rail*** | | | | |
| 1 panel wide | 1 | ZW41 | 2CPX039441R9999 | |
| 2 panel wide | 1 | ZW42 | 2CPX039442R9999 | |
| 3 panel wide | 1 | ZW43 | 2CPX039443R9999 | |
| 4 panel wide | 1 | ZW44 | 2CPX039444R9999 | |
| Door earthing set<br>10 mm² | 1 | ZL8 | 2CPX038001R9999 | |
| Hinge *<br>Door opening angle 160 degree | 3 | ZW106P3 | 2CPX062460R9999 | |
| Connection set H-floor-standing cabinets<br>For connecting cabinets in series, 1 set | 1 | ZW190 | 2CPX039390R9999 | |
| Connection set HS-floor-standing cabinets<br>For connecting cabinets in series, 1 set | 1 | ZW191 | 2CPX039391R9999 | |
| Document holder DIN A4<br>Self-adhesive with transparent sleeve | 1 | ZA6 | 2CPX038227R9999 | |
| | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve<br>and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| Document holder DIN A4<br>Self-adhesive | 1 | ZA13 | 2CPX038233R9999 | |
| | 10 | ZA13P10 | 2CPX062381R9999 | |
| Document holder DIN A5<br>Self-adhesive | 1 | ZA5 | 2CPX038228R9999 | |
| | 10 | ZA5P10 | 2CPX062382R9999 | |
| Spray paint can<br>Colour RAL 7005, 150 ml | 1 | ZA18 | 2CPX038237R9999 | |
| Colour RAL 7035, 150 ml | 1 | ZA16 | 2CPX038235R9999 | |
| Touch-up applicator<br>Colour RAL 7035, 12 ml | 1 | ZA116 | 2CPX039042R9999 | |

*Spare part included in the scope of delivery

# Enclosures
## H and HS floor-standing cabinets IP43 cable entry covers / accessories


KB17


KB217


KBS7


KBW1


GSR1


GRG1

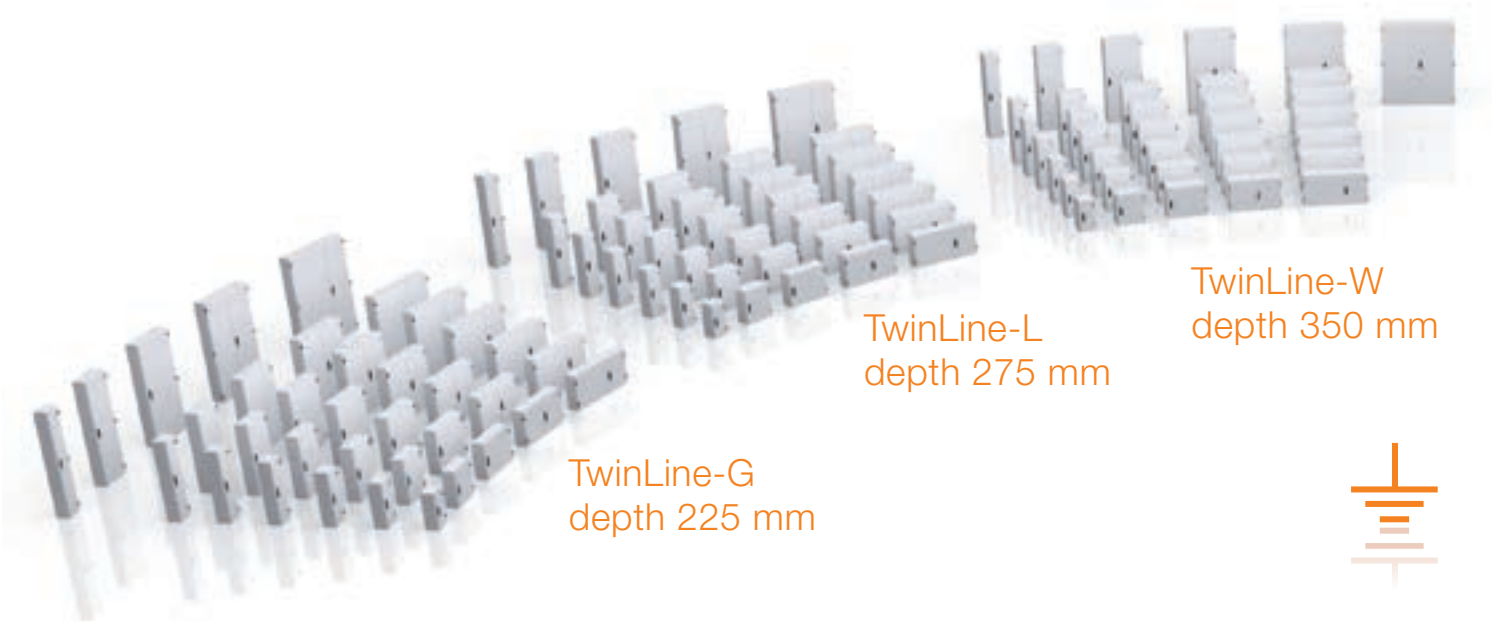

ZB15


ZW123

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Cable entry covers** | | | | |
| With end plates and mounting brackets, colour RAL7035 adjusted to the colour of the cabinets | | | | |
| 1 panel wide, width 300 mm | 1 | KB17 | 2CPX044044R9999 | |
| 2 panel wide, width 550 mm | 1 | KB27 | 2CPX044045R9999 | |
| 3 panel wide, width 800 mm | 1 | KB37 | 2CPX044046R9999 | |
| 4 panel wide, width 1050 mm | 1 | KB47 | 2CPX044047R9999 | |
| Profile<br>Colour RAL7035<br>Width 2000 mm | 1 | KB217 | 2CPX044054R9999 | |
| End plate left/right<br>Colour RAL7035<br>1 set, 2 pcs. | 1 | KBS7 | 2CPX044056R9999 | |
| Mounting brackets | 1 | KBW1 | 2CPX044058R9999 | |
| **Plinth** | | | | |
| Colour RAL 7005, height 50 mm | | | | |
| 1 panel wide | 1 | GSR1 | 2CPX034951R9999 | |
| 2 panel wide | 1 | GSR2 | 2CPX034952R9999 | |
| 3 panel wide | 1 | GSR3 | 2CPX034953R9999 | |
| 4 panel wide | 1 | GSR4 | 2CPX034954R9999 | |
| **High plinth** | | | | |
| Front and rear side removable, Colour RAL 7005, height 150 mm | | | | |
| 1 panel wide | 1 | GRG1 | 2CPX034956R9999 | |
| 2 panel wide | 1 | GRG2 | 2CPX034957R9999 | |
| 3 panel wide | 1 | GRG3 | 2CPX034958R9999 | |
| 4 panel wide | 1 | GRG4 | 2CPX034959R9999 | |
| **HS-floor-standing cabinets** | | | | |
| Assembly set<br>For the installation of meter panels order one additional<br>ZB15 per panel width (250 mm) | 1 | ZB15 | 2CPX038132R9999 | |
| **Touch guard*** | | | | |
| Single meter panel | 1 | ZW123 | 2CPX039505R9999 | |
| Double meter panel | 1 | ZW124 | 2CPX039506R9999 | |

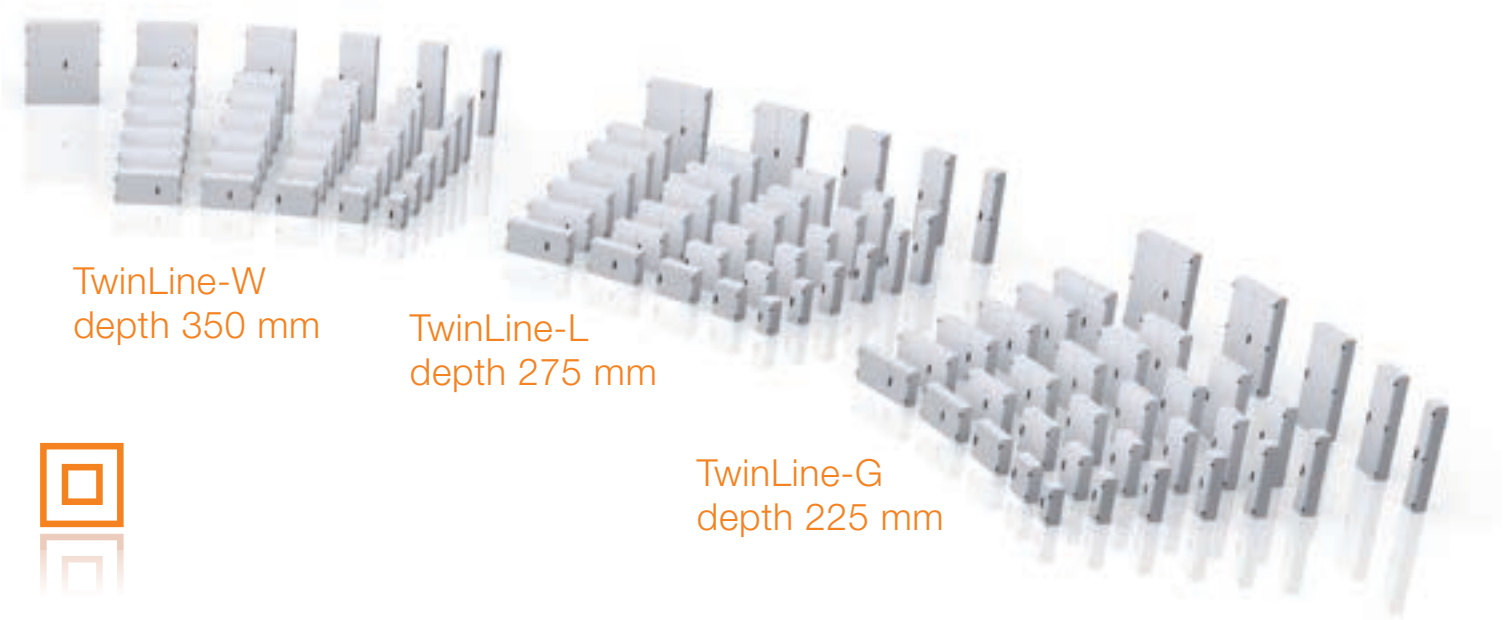
# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## The complete cabinet system in all sizes

**One system, Two protection classes, Three cabinet depths, Unlimited possibilities**




| Cabinet series | | | TwinLine-G | | | | | TwinLine-L | | | | | TwinLine-W | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Degree of protection | | | up to IP55 | | | | | up to IP55 | | | | | up to IP55 | | | | | |
| Protection class | | | ⏚ | | | | | ⏚ | | | | | ⏚ | | | | | |
| Depth | | | 225 | | | | | 275 | | | | | 350 | | | | | |
| Width | | | 300 | 550 | 800 | 1050 | 1300 | 300 | 550 | 800 | 1050 | 1300 | 300 | 550 | 800 | 1050 | 1300 | 1550 |
| Height | GU 4 | 650 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 5 | 800 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 6 | 950 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 7 | 1100 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 8 | 1250 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 9 | 1400 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 12 | 1850 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

> Dimensions in mm




| Cabinet series | | | TwinLine-G | | | | | TwinLine-L | | | | | TwinLine-W | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Degree of protection | | | up to IP55 | | | | | up to IP55 | | | | | up to IP55 | | | | | |
| Protection class | | | ⧈ | | | | | ⧈ | | | | | ⧈ | | | | | |
| Depth | | | 225 | | | | | 275 | | | | | 350 | | | | | |
| Width | | | 300 | 550 | 800 | 1050 | 1300 | 300 | 550 | 800 | 1050 | 1300 | 300 | 550 | 800 | 1050 | 1300 | 1550 |
| Height | GU 4 | 650 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 5 | 800 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 6 | 950 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 7 | 1100 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 8 | 1250 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU 9 | 1400 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | GU12 | 1850 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

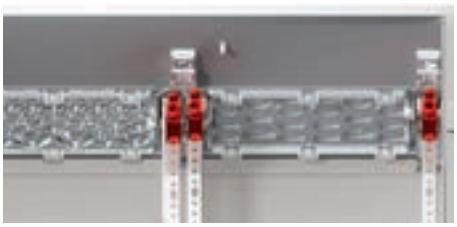
> Dimensions in mm

# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Product benefits





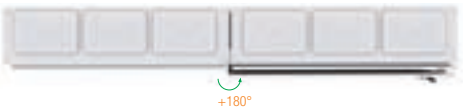
Significantly more usable area for cable entry.
Innovative flange technology with tool-free installation.



Uniform fastening for all internal configurations.



All cabinets can easily be combined in series both, vertically and horizontally
Time-saving plinth installation and safe transport.




Optimal accessibility and ease of installation thanks to 180 degree door opening angle.

# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Innovative cable inlet

With TwinLine there is literally more in it for you.
The usable area for cable entry is up to 84 per cent more.
All flanges achieve the high IP55 degree of protection. You also get more convenience since the 2-component flanges can be attached without the need for tools thanks to the handy push and lock technology.

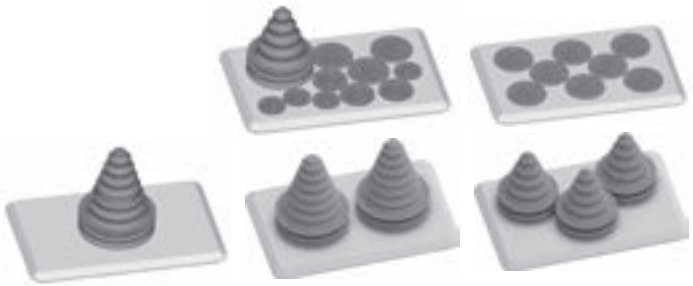
- All flanges achieve the high IP55 degree of protection
- Up to 84 per cent more usable area for cable entry
- All flanges are compatible with all flange openings and knockouts within the entire TwinLine system
- Wide range of new flanges



### Membrane flange
- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- Optimal cable entry by a combination of hard and soft components
- Additional fixing and centring possible



### Flange for M screw fittings
- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- With two different hole patterns



### Flange with cable sleeves
- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- With two or three cable sleeves



### Closing flange
- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings



### Closing flange
- With foam seal around perimeter. material: sheet steel 2 mm
- Continuous protective earth connection via flange fastener
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings

# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Wall-mounting cabinets / Technical specifications and product features

| Technical specifications for TwinLine-G, L and W | |
|---|---|
| Standards / requirements | According to DIN EN 61439-1/-2/-3, DIN VDE 0660-600-1/-2/-3*1 |
| Protection class | I, earthed |
| | II, double insulated |
| Degree of protection | With door IP55 |
| | Without door IP30, for an extension as meter distribution board with distribution board panels, combination sets or |
| Mechanical impact strength | IK 10 for the cabinet enclosure |
| | IK 08 in the area of the flange knockouts |
| Conditions of installation | Indoor installation |
| | Ambient air temperature max. + 40°C |
| | Ambient air temperature min. - 5°C |
| | Operating temperature max. + 55°C |
| | Storage temperature max. + 55°C |
| | Storage temperature min. - 40°C |

| Product features for TwinLine-G, L and W | |
|---|---|
| Housing and door material | Sheet steel, RAL 7035, powder-coated |
| | One flange opening per panel width at the top; knockouts are provided on the sides and bottom |
| | Door opening angle: 180 degrees |
| | Double-wing doors in all cabinets of a width of 4 panels and more |
| | Doors with espagnolette closure |
| | Standard lock: 3 mm double bit |
| Assembly options* | Prepared to be fitted with distribution board panels, combination sets or CombiLine modules on EDF mounting frame |
| | Prepared to be fitted with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter |
| Forms of delivery | Enclosure with door |
| | Enclosure without door |
| | External mounting brackets included in the scope of delivery |
| | Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional included in the scope of delivery |
| | Touch guard for the double insulated cabinet included in the scope of delivery |
| | Touch guards for earthed cabinets must be ordered separately as accessory |
| Accessories | For enclosures without door the door may also be ordered separately, if necessary |
| | Flanges must be ordered separately |
| | Touch guards for earthed cabinets must be ordered separately |

* For a detailed description of the extension options, see page 4/20

*1 The allowed heating for switchgear assemblies above 630 A rated current must be evidenced by the process according to section 10.10.4.2. The required values of the power loss capacity are specified in the tables on page 4/46. Above 630 A rated current the process according to 10.10.4.3 (IEC 60890) must be applied.

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-G wall-mounting cabinets, cabinet depth 225 mm ⏚




TG306G

### Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

### Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels, combination sets or CombiLine modules

| Height | | Width | | External dimensions*2 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TG104G | 2CPX010000R9999 | | TG104GB | 2CPX010221R9999 | |
| | | 2 | 96 | 650 x 550 | TG204G | 2CPX010001R9999 | | TG204GB | 2CPX010222R9999 | |
| | | 3 | 144 | 650 x 800 | TG304G | 2CPX010002R9999 | | TG304GB | 2CPX010223R9999 | |
| | | 4 | 192 | 650 x 1050 | TG404G | 2CPX010003R9999 | | TG404GB | 2CPX010224R9999 | |
| | | 5 | 240 | 650 x 1300 | TG504G | 2CPX010004R9999 | | TG504GB | 2CPX010225R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TG105G | 2CPX010005R9999 | | TG105GB | 2CPX010226R9999 | |
| | | 2 | 120 | 800 x 550 | TG205G | 2CPX010006R9999 | | TG205GB | 2CPX010227R9999 | |
| | | 3 | 180 | 800 x 800 | TG305G | 2CPX010007R9999 | | TG305GB | 2CPX010228R9999 | |
| | | 4 | 240 | 800 x 1050 | TG405G | 2CPX010008R9999 | | TG405GB | 2CPX010229R9999 | |
| | | 5 | 300 | 800 x 1300 | TG505G | 2CPX010009R9999 | | TG505GB | 2CPX010230R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TG106G | 2CPX010010R9999 | | TG106GB | 2CPX010231R9999 | |
| | | 2 | 144 | 950 x 550 | TG206G | 2CPX010011R9999 | | TG206GB | 2CPX010232R9999 | |
| | | 3 | 216 | 950 x 800 | TG306G | 2CPX010012R9999 | | TG306GB | 2CPX010233R9999 | |
| | | 4 | 288 | 950 x 1050 | TG406G | 2CPX010013R9999 | | TG406GB | 2CPX010234R9999 | |
| | | 5 | 360 | 950 x 1300 | TG506G | 2CPX010014R9999 | | TG506GB | 2CPX010235R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TG107G | 2CPX010015R9999 | | TG107GB | 2CPX010236R9999 | |
| | | 2 | 168 | 1100 x 550 | TG207G | 2CPX010016R9999 | | TG207GB | 2CPX010237R9999 | |
| | | 3 | 252 | 1100 x 800 | TG307G | 2CPX010017R9999 | | TG307GB | 2CPX010238R9999 | |
| | | 4 | 336 | 1100 x 1050 | TG407G | 2CPX010018R9999 | | TG407GB | 2CPX010239R9999 | |
| | | 5 | 420 | 1100 x 1300 | TG507G | 2CPX010019R9999 | | TG507GB | 2CPX010240R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TG108G | 2CPX010020R9999 | | TG108GB | 2CPX010241R9999 | |
| | | 2 | 192 | 1250 x 550 | TG208G | 2CPX010021R9999 | | TG208GB | 2CPX010242R9999 | |
| | | 3 | 288 | 1250 x 800 | TG308G | 2CPX010022R9999 | | TG308GB | 2CPX010243R9999 | |
| | | 4 | 384 | 1250 x 1050 | TG408G | 2CPX010023R9999 | | TG408GB | 2CPX010244R9999 | |
| | | 5 | 480 | 1250 x 1300 | TG508G | 2CPX010024R9999 | | TG508GB | 2CPX010245R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TG109G | 2CPX010025R9999 | | TG109GB | 2CPX010246R9999 | |
| | | 2 | 216 | 1400 x 550 | TG209G | 2CPX010026R9999 | | TG209GB | 2CPX010247R9999 | |
| | | 3 | 324 | 1400 x 800 | TG309G | 2CPX010027R9999 | | TG309GB | 2CPX010248R9999 | |
| | | 4 | 432 | 1400 x 1050 | TG409G | 2CPX010028R9999 | | TG409GB | 2CPX010249R9999 | |
| | | 5 | 540 | 1400 x 1300 | TG509G | 2CPX010029R9999 | | TG509GB | 2CPX010250R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches for more information

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-G wall-mounting cabinets, cabinet depth 225 mm ⧈




TG306S

### Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

### Accessories must be ordered separately

- Flanges

| Height | | Width | | External dimensions*2 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TG104S | 2CPX010035R9999 | | TG104SB | 2CPX010256R9999 | |
| | | 2 | 96 | 650 x 550 | TG204S | 2CPX010036R9999 | | TG204SB | 2CPX010257R9999 | |
| | | 3 | 144 | 650 x 800 | TG304S | 2CPX010037R9999 | | TG304SB | 2CPX010258R9999 | |
| | | 4 | 192 | 650 x 1050 | TG404S | 2CPX010038R9999 | | TG404SB | 2CPX010259R9999 | |
| | | 5 | 240 | 650 x 1300 | TG504S | 2CPX010039R9999 | | TG504SB | 2CPX010260R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TG105S | 2CPX010040R9999 | | TG105SB | 2CPX010261R9999 | |
| | | 2 | 120 | 800 x 550 | TG205S | 2CPX010041R9999 | | TG205SB | 2CPX010262R9999 | |
| | | 3 | 180 | 800 x 800 | TG305S | 2CPX010042R9999 | | TG305SB | 2CPX010263R9999 | |
| | | 4 | 240 | 800 x 1050 | TG405S | 2CPX010043R9999 | | TG405SB | 2CPX010264R9999 | |
| | | 5 | 300 | 800 x 1300 | TG505S | 2CPX010044R9999 | | TG505SB | 2CPX010265R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TG106S | 2CPX010045R9999 | | TG106SB | 2CPX010266R9999 | |
| | | 2 | 144 | 950 x 550 | TG206S | 2CPX010046R9999 | | TG206SB | 2CPX010267R9999 | |
| | | 3 | 216 | 950 x 800 | TG306S | 2CPX010047R9999 | | TG306SB | 2CPX010268R9999 | |
| | | 4 | 288 | 950 x 1050 | TG406S | 2CPX010048R9999 | | TG406SB | 2CPX010269R9999 | |
| | | 5 | 360 | 950 x 1300 | TG506S | 2CPX010049R9999 | | TG506SB | 2CPX010270R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TG107S | 2CPX010050R9999 | | TG107SB | 2CPX010271R9999 | |
| | | 2 | 168 | 1100 x 550 | TG207S | 2CPX010051R9999 | | TG207SB | 2CPX010272R9999 | |
| | | 3 | 252 | 1100 x 800 | TG307S | 2CPX010052R9999 | | TG307SB | 2CPX010273R9999 | |
| | | 4 | 336 | 1100 x 1050 | TG407S | 2CPX010053R9999 | | TG407SB | 2CPX010274R9999 | |
| | | 5 | 420 | 1100 x 1300 | TG507S | 2CPX010054R9999 | | TG507SB | 2CPX010275R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TG108S | 2CPX010055R9999 | | TG108SB | 2CPX010276R9999 | |
| | | 2 | 192 | 1250 x 550 | TG208S | 2CPX010056R9999 | | TG208SB | 2CPX010277R9999 | |
| | | 3 | 288 | 1250 x 800 | TG308S | 2CPX010057R9999 | | TG308SB | 2CPX010278R9999 | |
| | | 4 | 384 | 1250 x 1050 | TG408S | 2CPX010058R9999 | | TG408SB | 2CPX010279R9999 | |
| | | 5 | 480 | 1250 x 1300 | TG508S | 2CPX010059R9999 | | TG508SB | 2CPX010280R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TG109S | 2CPX010060R9999 | | TG109SB | 2CPX010281R9999 | |
| | | 2 | 216 | 1400 x 550 | TG209S | 2CPX010061R9999 | | TG209SB | 2CPX010282R9999 | |
| | | 3 | 324 | 1400 x 800 | TG309S | 2CPX010062R9999 | | TG309SB | 2CPX010283R9999 | |
| | | 4 | 432 | 1400 x 1050 | TG409S | 2CPX010063R9999 | | TG409SB | 2CPX010284R9999 | |
| | | 5 | 540 | 1400 x 1300 | TG509S | 2CPX010064R9999 | | TG509SB | 2CPX010285R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules
*2 External dimensions without prepunches for more information

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-L wall-mounting cabinets, cabinet depth 275 mm ⏚




TL306G

### Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

### Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels, combination sets or CombiLine modules

| Height | | Width | | External dimensions*2 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TL104G | 2CPX010070R9999 | | TL104GB | 2CPX010291R9999 | |
| | | 2 | 96 | 650 x 550 | TL204G | 2CPX010071R9999 | | TL204GB | 2CPX010292R9999 | |
| | | 3 | 144 | 650 x 800 | TL304G | 2CPX010072R9999 | | TL304GB | 2CPX010293R9999 | |
| | | 4 | 192 | 650 x 1050 | TL404G | 2CPX010073R9999 | | TL404GB | 2CPX010294R9999 | |
| | | 5 | 240 | 650 x 1300 | TL504G | 2CPX010074R9999 | | TL504GB | 2CPX010295R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TL105G | 2CPX010075R9999 | | TL105GB | 2CPX010296R9999 | |
| | | 2 | 120 | 800 x 550 | TL205G | 2CPX010076R9999 | | TL205GB | 2CPX010297R9999 | |
| | | 3 | 180 | 800 x 800 | TL305G | 2CPX010077R9999 | | TL305GB | 2CPX010298R9999 | |
| | | 4 | 240 | 800 x 1050 | TL405G | 2CPX010078R9999 | | TL405GB | 2CPX010299R9999 | |
| | | 5 | 300 | 800 x 1300 | TL505G | 2CPX010079R9999 | | TL505GB | 2CPX010300R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TL106G | 2CPX010080R9999 | | TL106GB | 2CPX010301R9999 | |
| | | 2 | 144 | 950 x 550 | TL206G | 2CPX010081R9999 | | TL206GB | 2CPX010302R9999 | |
| | | 3 | 216 | 950 x 800 | TL306G | 2CPX010082R9999 | | TL306GB | 2CPX010303R9999 | |
| | | 4 | 288 | 950 x 1050 | TL406G | 2CPX010083R9999 | | TL406GB | 2CPX010304R9999 | |
| | | 5 | 360 | 950 x 1300 | TL506G | 2CPX010084R9999 | | TL506GB | 2CPX010305R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TL107G | 2CPX010085R9999 | | TL107GB | 2CPX010306R9999 | |
| | | 2 | 168 | 1100 x 550 | TL207G | 2CPX010086R9999 | | TL207GB | 2CPX010307R9999 | |
| | | 3 | 252 | 1100 x 800 | TL307G | 2CPX010087R9999 | | TL307GB | 2CPX010308R9999 | |
| | | 4 | 336 | 1100 x 1050 | TL407G | 2CPX010088R9999 | | TL407GB | 2CPX010309R9999 | |
| | | 5 | 420 | 1100 x 1300 | TL507G | 2CPX010089R9999 | | TL507GB | 2CPX010310R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TL108G | 2CPX010090R9999 | | TL108GB | 2CPX010311R9999 | |
| | | 2 | 192 | 1250 x 550 | TL208G | 2CPX010091R9999 | | TL208GB | 2CPX010312R9999 | |
| | | 3 | 288 | 1250 x 800 | TL308G | 2CPX010092R9999 | | TL308GB | 2CPX010313R9999 | |
| | | 4 | 384 | 1250 x 1050 | TL408G | 2CPX010093R9999 | | TL408GB | 2CPX010314R9999 | |
| | | 5 | 480 | 1250 x 1300 | TL508G | 2CPX010094R9999 | | TL508GB | 2CPX010315R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TL109G | 2CPX010095R9999 | | TL109GB | 2CPX010316R9999 | |
| | | 2 | 216 | 1400 x 550 | TL209G | 2CPX010096R9999 | | TL209GB | 2CPX010317R9999 | |
| | | 3 | 324 | 1400 x 800 | TL309G | 2CPX010097R9999 | | TL309GB | 2CPX010318R9999 | |
| | | 4 | 432 | 1400 x 1050 | TL409G | 2CPX010098R9999 | | TL409GB | 2CPX010319R9999 | |
| | | 5 | 540 | 1400 x 1300 | TL509G | 2CPX010099R9999 | | TL509GB | 2CPX010320R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-L wall-mounting cabinets, cabinet depth 275 mm ⧈




TL306S

### Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

### Accessories must be ordered separately

- Flanges

| Height | | Width | | External dimensions *1 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TL104S | 2CPX010105R9999 | | TL104SB | 2CPX010326R9999 | |
| | | 2 | 96 | 650 x 550 | TL204S | 2CPX010106R9999 | | TL204SB | 2CPX010327R9999 | |
| | | 3 | 144 | 650 x 800 | TL304S | 2CPX010107R9999 | | TL304SB | 2CPX010328R9999 | |
| | | 4 | 192 | 650 x 1050 | TL404S | 2CPX010108R9999 | | TL404SB | 2CPX010329R9999 | |
| | | 5 | 240 | 650 x 1300 | TL504S | 2CPX010109R9999 | | TL504SB | 2CPX010330R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TL105S | 2CPX010110R9999 | | TL105SB | 2CPX010331R9999 | |
| | | 2 | 120 | 800 x 550 | TL205S | 2CPX010111R9999 | | TL205SB | 2CPX010332R9999 | |
| | | 3 | 180 | 800 x 800 | TL305S | 2CPX010112R9999 | | TL305SB | 2CPX010333R9999 | |
| | | 4 | 240 | 800 x 1050 | TL405S | 2CPX010113R9999 | | TL405SB | 2CPX010334R9999 | |
| | | 5 | 300 | 800 x 1300 | TL505S | 2CPX010114R9999 | | TL505SB | 2CPX010335R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TL106S | 2CPX010115R9999 | | TL106SB | 2CPX010336R9999 | |
| | | 2 | 144 | 950 x 550 | TL206S | 2CPX010116R9999 | | TL206SB | 2CPX010337R9999 | |
| | | 3 | 216 | 950 x 800 | TL306S | 2CPX010117R9999 | | TL306SB | 2CPX010338R9999 | |
| | | 4 | 288 | 950 x 1050 | TL406S | 2CPX010118R9999 | | TL406SB | 2CPX010339R9999 | |
| | | 5 | 360 | 950 x 1300 | TL506S | 2CPX010119R9999 | | TL506SB | 2CPX010340R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TL107S | 2CPX010120R9999 | | TL107SB | 2CPX010341R9999 | |
| | | 2 | 168 | 1100 x 550 | TL207S | 2CPX010121R9999 | | TL207SB | 2CPX010342R9999 | |
| | | 3 | 252 | 1100 x 800 | TL307S | 2CPX010122R9999 | | TL307SB | 2CPX010343R9999 | |
| | | 4 | 336 | 1100 x 1050 | TL407S | 2CPX010123R9999 | | TL407SB | 2CPX010344R9999 | |
| | | 5 | 420 | 1100 x 1300 | TL507S | 2CPX010124R9999 | | TL507SB | 2CPX010345R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TL108S | 2CPX010125R9999 | | TL108SB | 2CPX010346R9999 | |
| | | 2 | 192 | 1250 x 550 | TL208S | 2CPX010126R9999 | | TL208SB | 2CPX010347R9999 | |
| | | 3 | 288 | 1250 x 800 | TL308S | 2CPX010127R9999 | | TL308SB | 2CPX010348R9999 | |
| | | 4 | 384 | 1250 x 1050 | TL408S | 2CPX010128R9999 | | TL408SB | 2CPX010349R9999 | |
| | | 5 | 480 | 1250 x 1300 | TL508S | 2CPX010129R9999 | | TL508SB | 2CPX010350R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TL109S | 2CPX010130R9999 | | TL109SB | 2CPX010351R9999 | |
| | | 2 | 216 | 1400 x 550 | TL209S | 2CPX010131R9999 | | TL209SB | 2CPX010352R9999 | |
| | | 3 | 324 | 1400 x 800 | TL309S | 2CPX010132R9999 | | TL309SB | 2CPX010353R9999 | |
| | | 4 | 432 | 1400 x 1050 | TL409S | 2CPX010133R9999 | | TL409SB | 2CPX010354R9999 | |
| | | 5 | 540 | 1400 x 1300 | TL509S | 2CPX010134R9999 | | TL509SB | 2CPX010355R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules
*2 External dimensions without prepunches

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-W wall-mounting cabinets, cabinet depth 350 mm ⏚




**TW306G**

### Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

### Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels. combination sets or CombiLine modules

| Height | | Width | | External dimensions*2 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TW104G | 2CPX010140R9999 | | TW104GB | 2CPX010361R9999 | |
| | | 2 | 96 | 650 x 550 | TW204G | 2CPX010141R9999 | | TW204GB | 2CPX010362R9999 | |
| | | 3 | 144 | 650 x 800 | TW304G | 2CPX010142R9999 | | TW304GB | 2CPX010363R9999 | |
| | | 4 | 192 | 650 x 1050 | TW404G | 2CPX010143R9999 | | TW404GB | 2CPX010364R9999 | |
| | | 5 | 240 | 650 x 1300 | TW504G | 2CPX010144R9999 | | TW504GB | 2CPX010365R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TW105G | 2CPX010202R9999 | | TW105GB | 2CPX010366R9999 | |
| | | 2 | 120 | 800 x 550 | TW205G | 2CPX010203R9999 | | TW205GB | 2CPX010367R9999 | |
| | | 3 | 180 | 800 x 800 | TW305G | 2CPX010204R9999 | | TW305GB | 2CPX010368R9999 | |
| | | 4 | 240 | 800 x 1050 | TW405G | 2CPX010205R9999 | | TW405GB | 2CPX010369R9999 | |
| | | 5 | 300 | 800 x 1300 | TW505G | 2CPX010206R9999 | | TW505GB | 2CPX010370R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TW106G | 2CPX010145R9999 | | TW106GB | 2CPX010371R9999 | |
| | | 2 | 144 | 950 x 550 | TW206G | 2CPX010146R9999 | | TW206GB | 2CPX010372R9999 | |
| | | 3 | 216 | 950 x 800 | TW306G | 2CPX010147R9999 | | TW306GB | 2CPX010373R9999 | |
| | | 4 | 288 | 950 x 1050 | TW406G | 2CPX010148R9999 | | TW406GB | 2CPX010374R9999 | |
| | | 5 | 360 | 950 x 1300 | TW506G | 2CPX010149R9999 | | TW506GB | 2CPX010375R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TW107G | 2CPX010150R9999 | | TW107GB | 2CPX010376R9999 | |
| | | 2 | 168 | 1100 x 550 | TW207G | 2CPX010151R9999 | | TW207GB | 2CPX010377R9999 | |
| | | 3 | 252 | 1100 x 800 | TW307G | 2CPX010152R9999 | | TW307GB | 2CPX010378R9999 | |
| | | 4 | 336 | 1100 x 1050 | TW407G | 2CPX010153R9999 | | TW407GB | 2CPX010379R9999 | |
| | | 5 | 420 | 1100 x 1300 | TW507G | 2CPX010154R9999 | | TW507GB | 2CPX010380R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TW108G | 2CPX010155R9999 | | TW108GB | 2CPX010381R9999 | |
| | | 2 | 192 | 1250 x 550 | TW208G | 2CPX010156R9999 | | TW208GB | 2CPX010382R9999 | |
| | | 3 | 288 | 1250 x 800 | TW308G | 2CPX010157R9999 | | TW308GB | 2CPX010383R9999 | |
| | | 4 | 384 | 1250 x 1050 | TW408G | 2CPX010158R9999 | | TW408GB | 2CPX010384R9999 | |
| | | 5 | 480 | 1250 x 1300 | TW508G | 2CPX010159R9999 | | TW508GB | 2CPX010385R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TW109G | 2CPX010160R9999 | | TW109GB | 2CPX010386R9999 | |
| | | 2 | 216 | 1400 x 550 | TW209G | 2CPX010161R9999 | | TW209GB | 2CPX010387R9999 | |
| | | 3 | 324 | 1400 x 800 | TW309G | 2CPX010162R9999 | | TW309GB | 2CPX010388R9999 | |
| | | 4 | 432 | 1400 x 1050 | TW409G | 2CPX010163R9999 | | TW409GB | 2CPX010389R9999 | |
| | | 5 | 540 | 1400 x 1300 | TW509G | 2CPX010164R9999 | | TW509GB | 2CPX010390R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## TwinLine-W wall-mounting cabinets, cabinet depth 350 mm ⧈




**TW306S**

### Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

### Accessories must be ordered separately

- Flanges

| Height | | Width | | External dimensions*2 | Wall-mounting cabinets with door IP55 | | | Wall-mounting cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details | | Price | Order details | | Price |
| | | | | | Type | Order code | | Type | Order code | |
| 4 | 0 | 1 | 48 | 650 x 300 | TW104S | 2CPX010171R9999 | | TW104SB | 2CPX010397R9999 | |
| | | 2 | 96 | 650 x 550 | TW204S | 2CPX010172R9999 | | TW204SB | 2CPX010398R9999 | |
| | | 3 | 144 | 650 x 800 | TW304S | 2CPX010173R9999 | | TW304SB | 2CPX010399R9999 | |
| | | 4 | 192 | 650 x 1050 | TW404S | 2CPX010174R9999 | | TW404SB | 2CPX010400R9999 | |
| | | 5 | 240 | 650 x 1300 | TW504S | 2CPX010175R9999 | | TW504SB | 2CPX010401R9999 | |
| 5 | 1 | 1 | 60 | 800 x 300 | TW105S | 2CPX010207R9999 | | TW105SB | 2CPX010402R9999 | |
| | | 2 | 120 | 800 x 550 | TW205S | 2CPX010208R9999 | | TW205SB | 2CPX010403R9999 | |
| | | 3 | 180 | 800 x 800 | TW305S | 2CPX010209R9999 | | TW305SB | 2CPX010404R9999 | |
| | | 4 | 240 | 800 x 1050 | TW405S | 2CPX010210R9999 | | TW405SB | 2CPX010405R9999 | |
| | | 5 | 300 | 800 x 1300 | TW505S | 2CPX010211R9999 | | TW505SB | 2CPX010406R9999 | |
| 6 | 2 | 1 | 72 | 950 x 300 | TW106S | 2CPX010176R9999 | | TW106SB | 2CPX010407R9999 | |
| | | 2 | 144 | 950 x 550 | TW206S | 2CPX010177R9999 | | TW206SB | 2CPX010408R9999 | |
| | | 3 | 216 | 950 x 800 | TW306S | 2CPX010178R9999 | | TW306SB | 2CPX010409R9999 | |
| | | 4 | 288 | 950 x 1050 | TW406S | 2CPX010179R9999 | | TW406SB | 2CPX010410R9999 | |
| | | 5 | 360 | 950 x 1300 | TW506S | 2CPX010180R9999 | | TW506SB | 2CPX010411R9999 | |
| 7 | 3 | 1 | 84 | 1100 x 300 | TW107S | 2CPX010181R9999 | | TW107SB | 2CPX010412R9999 | |
| | | 2 | 168 | 1100 x 550 | TW207S | 2CPX010182R9999 | | TW207SB | 2CPX010413R9999 | |
| | | 3 | 252 | 1100 x 800 | TW307S | 2CPX010183R9999 | | TW307SB | 2CPX010414R9999 | |
| | | 4 | 336 | 1100 x 1050 | TW407S | 2CPX010184R9999 | | TW407SB | 2CPX010415R9999 | |
| | | 5 | 420 | 1100 x 1300 | TW507S | 2CPX010185R9999 | | TW507SB | 2CPX010416R9999 | |
| 8 | 4 | 1 | 96 | 1250 x 300 | TW108S | 2CPX010186R9999 | | TW108SB | 2CPX010417R9999 | |
| | | 2 | 192 | 1250 x 550 | TW208S | 2CPX010187R9999 | | TW208SB | 2CPX010418R9999 | |
| | | 3 | 288 | 1250 x 800 | TW308S | 2CPX010188R9999 | | TW308SB | 2CPX010419R9999 | |
| | | 4 | 384 | 1250 x 1050 | TW408S | 2CPX010189R9999 | | TW408SB | 2CPX010420R9999 | |
| | | 5 | 480 | 1250 x 1300 | TW508S | 2CPX010190R9999 | | TW508SB | 2CPX010421R9999 | |
| 9 | 5 | 1 | 108 | 1400 x 300 | TW109S | 2CPX010191R9999 | | TW109SB | 2CPX010422R9999 | |
| | | 2 | 216 | 1400 x 550 | TW209S | 2CPX010192R9999 | | TW209SB | 2CPX010423R9999 | |
| | | 3 | 324 | 1400 x 800 | TW309S | 2CPX010193R9999 | | TW309SB | 2CPX010424R9999 | |
| | | 4 | 432 | 1400 x 1050 | TW409S | 2CPX010194R9999 | | TW409SB | 2CPX010425R9999 | |
| | | 5 | 540 | 1400 x 1300 | TW509S | 2CPX010195R9999 | | TW509SB | 2CPX010426R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules
*2 External dimensions without prepunches

# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Floor-standing cabinets



# TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Floor-standing cabinets / Technical specifications and product features

| Technical specifications for TwinLine-G, L and W | |
|---|---|
| Standards / requirements | According to DIN EN 61439-1/-2/-3, DIN VDE 0660-600-1/-2/-3*1 |
| Protection class | I, earthed |
| | II, double insulated |
| Degree of protection | With door IP55 |
| | Without door IP30 for an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules |
| Mechanical impact strength | IK 10 for the cabinet enclosure |
| | IK 08 in the area of the flange knockouts |
| Conditions of installation | Indoor installation |
| | Ambient air temperature max. + 40°C |
| | Ambient air temperature min. - 5°C |
| | Operating temperature max. + 55°C |
| | Storage temperature max. + 55°C |
| | Storage temperature min. - 40°C |

| Product features for TwinLine-G, L and W | |
|---|---|
| Housing and door material | Sheet steel, RAL 7035, powder-coated |
| | One flange opening per panel width at the top; knockouts are provided on the sides and bottom |
| | Door opening angle: 180 degrees |
| | Double-wing doors in all cabinets of a width of 4 panels and more |
| | Doors with espagnolette closure |
| | Standard lock: 3 mm double bit |
| Assembly options* | |
| | Prepared to be fitted with distribution board panels, combination sets or CombiLine modules on EDF mounting frame;<br>EDF adapter and centre support rail must be ordered as accessories |
| Forms of delivery | Enclosure with door |
| | Enclosure without door |
| | External mounting brackets included in the scope of delivery |
| | Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional included in the scope of delivery |
| | Touch guard for the double insulated cabinet included in the scope of delivery |
| | Touch guards for earthed cabinets must be ordered separately as accessory |
| Accessories | For enclosures without door, the door may also be ordered separately, if necessary |
| | Flanges must be ordered separately |
| | Plinths must be ordered separately |
| | Touch guards for earthed cabinets must be ordered separately |
| | EDF adapter must be ordered separately, if required* |
| | Centre support rails must be ordered separately, if required* |

* For a more detailed description of the extension options for floor-standing cabinets, see page 4/30

*1 The allowed heating for switchgear assemblies above 630 A rated current must be evidenced by the process according to section 10.10.4.2. The required values of the power loss capacity are specified in the tables on page 6/45. Above 630 A rated current the process according to 10.10.4.3 (IEC 60890) must be applied.
For the power loss transfer rates, see table on page 4/47

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55

## Floor-standing cabinets / cabinet depth 225 / 275 / 350 mm ⏚




TG312G

### Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates

### Accessories must be ordered separately

- Flanges
- Plinth
- Touch guard for the extension with CombiLine modules
- EDF adapter, centre support rails and touch guard for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame

| Height | | Width | | External dimensions*2 | Floor-standing cabinets with door IP55 | | | Floor-standing cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details Type | Order code | Price | Order details Type | Order code | Price |
| **TwinLine-G, cabinet depth 225 mm ⏚** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TG112G | 2CPX010030R9999 | | TG112GB | 2CPX010251R9999 | |
| | | 2 | 288 | 1850 x 550 | TG212G | 2CPX010031R9999 | | TG212GB | 2CPX010252R9999 | |
| | | 3 | 432 | 1850 x 800 | TG312G | 2CPX010032R9999 | | TG312GB | 2CPX010253R9999 | |
| | | 4 | 576 | 1850 x 1050 | TG412G | 2CPX010033R9999 | | TG412GB | 2CPX010254R9999 | |
| | | 5 | 720 | 1850 x 1300 | TG512G | 2CPX010034R9999 | | TG512GB | 2CPX010255R9999 | |
| **TwinLine-L, cabinet depth 275 mm ⏚** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TL112G | 2CPX010100R9999 | | TL112GB | 2CPX010321R9999 | |
| | | 2 | 288 | 1850 x 550 | TL212G | 2CPX010101R9999 | | TL212GB | 2CPX010322R9999 | |
| | | 3 | 432 | 1850 x 800 | TL312G | 2CPX010102R9999 | | TL312GB | 2CPX010323R9999 | |
| | | 4 | 576 | 1850 x 1050 | TL412G | 2CPX010103R9999 | | TL412GB | 2CPX010324R9999 | |
| | | 5 | 720 | 1850 x 1300 | TL512G | 2CPX010104R9999 | | TL512GB | 2CPX010325R9999 | |
| **TwinLine-W, cabinet depth 350 mm ⏚** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TW112G | 2CPX010165R9999 | | TW112GB | 2CPX010391R9999 | |
| | | 2 | 288 | 1850 x 550 | TW212G | 2CPX010166R9999 | | TW212GB | 2CPX010392R9999 | |
| | | 3 | 432 | 1850 x 800 | TW312G | 2CPX010167R9999 | | TW312GB | 2CPX010393R9999 | |
| | | 4 | 576 | 1850 x 1050 | TW412G | 2CPX010168R9999 | | TW412GB | 2CPX010394R9999 | |
| | | 5 | 720 | 1850 x 1300 | TW512G | 2CPX010169R9999 | | TW512GB | 2CPX010395R9999 | |
| | | 6 | 864 | 1850 x 1550 | TW612G | 2CPX010170R9999 | | TW612GB | 2CPX010396R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55

## Floor-standing cabinets / cabinet depth 225 / 275 / 350 mm ⧈




TG312S

### Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with CombiLine modules on WR mounting frame

### Accessories must be ordered separately

- Flanges
- Plinth
- EDF adapter and centre support rails for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame

| Height | | Width | | External dimensions*2 | Floor-standing cabinets with door IP55 | | | Floor-standing cabinets without door IP30*1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | SU | H x W in mm | Order details Type | Order code | Price | Order details Type | Order code | Price |
| **TwinLine-G, cabinet depth 225 mm ⧈** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TG112S | 2CPX010065R9999 | | TG112SB | 2CPX010286R9999 | |
| | | 2 | 288 | 1850 x 550 | TG212S | 2CPX010066R9999 | | TG212SB | 2CPX010287R9999 | |
| | | 3 | 432 | 1850 x 800 | TG312S | 2CPX010067R9999 | | TG312SB | 2CPX010288R9999 | |
| | | 4 | 576 | 1850 x 1050 | TG412S | 2CPX010068R9999 | | TG412SB | 2CPX010289R9999 | |
| | | 5 | 720 | 1850 x 1300 | TG512S | 2CPX010069R9999 | | TG512SB | 2CPX010290R9999 | |
| **TwinLine-L, cabinet depth 275 mm ⧈** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TL112S | 2CPX010135R9999 | | TL112SB | 2CPX010356R9999 | |
| | | 2 | 288 | 1850 x 550 | TL212S | 2CPX010136R9999 | | TL212SB | 2CPX010357R9999 | |
| | | 3 | 432 | 1850 x 800 | TL312S | 2CPX010137R9999 | | TL312SB | 2CPX010358R9999 | |
| | | 4 | 576 | 1850 x 1050 | TL412S | 2CPX010138R9999 | | TL412SB | 2CPX010359R9999 | |
| | | 5 | 720 | 1850 x 1300 | TL512S | 2CPX010139R9999 | | TL512SB | 2CPX010360R9999 | |
| **TwinLine-W, cabinet depth 350 mm ⧈** | | | | | | | | | | |
| 12 | 8 | 1 | 144 | 1850 x 300 | TW112S | 2CPX010196R9999 | | TW112SB | 2CPX010427R9999 | |
| | | 2 | 288 | 1850 x 550 | TW212S | 2CPX010197R9999 | | TW212SB | 2CPX010428R9999 | |
| | | 3 | 432 | 1850 x 800 | TW312S | 2CPX010198R9999 | | TW312SB | 2CPX010429R9999 | |
| | | 4 | 576 | 1850 x 1050 | TW412S | 2CPX010199R9999 | | TW412SB | 2CPX010430R9999 | |
| | | 5 | 720 | 1850 x 1300 | TW512S | 2CPX010200R9999 | | TW512SB | 2CPX010431R9999 | |
| | | 6 | 864 | 1850 x 1550 | TW612S | 2CPX010201R9999 | | TW612SB | 2CPX010432R9999 | |

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Flange IP55


TZ101


TZ102


TZ103


TZ110


TZ111


TZ112


TZ104


TZ105


TZ107


TZ106

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Membrane flange | 1 | TZ101 | 2CPX010450R9999 | |
| Material: plastic | 10 | TZ101P10 | 2CPX010451R9999 | |
| For cable sections 2 x 6 - 32.5 mm, 2 x 6 - 25 mm, 4 x 6 - 19 mm, | 100 | TZ101P100 | 2CPX010826R9999 | |
| 10 x 6 - 15 mm, 2 x 6 - 12 mm, 31 x 6 - 11 mm, 1 x 6 - 7 mm | | | | |
| **Flanges for M screw fittings** | | | | |
| Material: plastic | | | | |
| 1 x M63 / M50, 2 x M32 / M20, 5 x M25, 5 x M20 | 1 | TZ102 | 2CPX010452R9999 | |
| | 10 | TZ102P10 | 2CPX010453R9999 | |
| 4 x M20 / M25, 18 x M20 | 1 | TZ103 | 2CPX010454R9999 | |
| | 10 | TZ103P10 | 2CPX010455R9999 | |
| **Flanges with cable sleeves** | | | | |
| Material: plastic | | | | |
| Flanges with 8 cable sleeves | 1 | TZ104 | 2CPX010456R9999 | |
| For cable sections 8 x 13 up to 34 mm | | | | |
| Flanges with 11 cable sleeves | 1 | TZ105 | 2CPX010457R9999 | |
| For cable sections 1 x 14 up to 54 mm, 3 x 13 up to 34 mm, | | | | |
| 3 x 13 up to 26,5 mm, 4 x 5 up to 21 mm | | | | |
| Flange with 1 cable sleeve | 1 | TZ110 | 2CPX010850R9999 | |
| For cable sections 1 x 14 up to 68 mm | | | | |
| Flange with 2 cable sleeves | 1 | TZ111 | 2CPX010851R9999 | |
| For cable sections 2 x 14 up to 68 mm | | | | |
| Flange with 3 cable sleeves | 1 | TZ112 | 2CPX010852R9999 | |
| For cable sections 3 x 14 up to 54 mm | | | | |
| **Closing flanges** | | | | |
| Material: plastic | 1 | TZ107 | 2CPX010460R9999 | |
| | 10 | TZ107P10 | 2CPX010461R9999 | |
| Material: sheet steel | 1 | TZ106 | 2CPX010458R9999 | |
| For earthed cabinets | 10 | TZ106P10 | 2CPX010459R9999 | |

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Plinth



TZW305



TZW310



TZ627P2



TZ323



ZK143

| Article | Depth mm | Width PW | Width mm | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **Plinth, height 50 mm, Colour RAL 9005** | | | | | | | |
| For TwinLine-G | 225 | 1 | 300 | 1 | TZG105 | 2CPX010571R9999 | |
| | 225 | 2 | 550 | 1 | TZG205 | 2CPX010573R9999 | |
| | 225 | 3 | 800 | 1 | TZG305 | 2CPX010575R9999 | |
| | 225 | 4 | 1050 | 1 | TZG405 | 2CPX010577R9999 | |
| | 225 | 5 | 1300 | 1 | TZG505 | 2CPX010579R9999 | |
| For TwinLine-L | 275 | 1 | 300 | 1 | TZL105 | 2CPX010581R9999 | |
| | 275 | 2 | 550 | 1 | TZL205 | 2CPX010583R9999 | |
| | 275 | 3 | 800 | 1 | TZL305 | 2CPX010585R9999 | |
| | 275 | 4 | 1050 | 1 | TZL405 | 2CPX010587R9999 | |
| | 275 | 5 | 1300 | 1 | TZL505 | 2CPX010589R9999 | |
| For TwinLine-W | 350 | 1 | 300 | 1 | TZW105 | 2CPX010661R9999 | |
| | 350 | 2 | 550 | 1 | TZW205 | 2CPX010663R9999 | |
| | 350 | 3 | 800 | 1 | TZW305 | 2CPX010665R9999 | |
| | 350 | 4 | 1050 | 1 | TZW405 | 2CPX010667R9999 | |
| | 350 | 5 | 1300 | 1 | TZW505 | 2CPX010669R9999 | |
| | 350 | 6 | 1550 | 1 | TZW605 | 2CPX010671R9999 | |
| **Plinth, height 100 mm, Colour RAL 9005** | | | | | | | |
| For TwinLine-G<br>Lateral knock-outs<br>1 x M32/M50 or<br>80 x 80 mm | 225 | 1 | 300 | 1 | TZG110 | 2CPX010572R9999 | |
| | 225 | 2 | 550 | 1 | TZG210 | 2CPX010574R9999 | |
| | 225 | 3 | 800 | 1 | TZG310 | 2CPX010576R9999 | |
| | 225 | 4 | 1050 | 1 | TZG410 | 2CPX010578R9999 | |
| | 225 | 5 | 1300 | 1 | TZG510 | 2CPX010580R9999 | |
| For TwinLine-L*<br>Lateral knock-outs<br>1 x M32/M50 or<br>80 x 80 mm | 275 | 1 | 300 | 1 | TZL110 | 2CPX010582R9999 | |
| | 275 | 2 | 550 | 1 | TZL210 | 2CPX010584R9999 | |
| | 275 | 3 | 800 | 1 | TZL310 | 2CPX010586R9999 | |
| | 275 | 4 | 1050 | 1 | TZL410 | 2CPX010588R9999 | |
| | 275 | 5 | 1300 | 1 | TZL510 | 2CPX010590R9999 | |
| For TwinLine-W*<br>Lateral knock-outs<br>2 x M32/M50 or<br>2 x 80 x 80 mm | 350 | 1 | 300 | 1 | TZW110 | 2CPX010662R9999 | |
| | 350 | 2 | 550 | 1 | TZW210 | 2CPX010664R9999 | |
| | 350 | 3 | 800 | 1 | TZW310 | 2CPX010666R9999 | |
| | 350 | 4 | 1050 | 1 | TZW410 | 2CPX010668R9999 | |
| | 350 | 5 | 1300 | 1 | TZW510 | 2CPX010670R9999 | |
| | 350 | 6 | 1550 | 1 | TZW610 | 2CPX010672R9999 | |
| Plinth mounting brackets<br>For external plinth assembly on the cabinet<br>For 50 mm and 100 mm plinths height | | | | 2 | TZ627P2 | 2CPX010853R9999 | |
| Cable fastening rail<br>For plinth, height 100 mm | | 1 | 250 | 1 | TZ321 | 2CPX010473R9999 | |
| | | 2 | 500 | 1 | TZ322 | 2CPX010474R9999 | |
| | | 3 | 750 | 1 | TZ323 | 2CPX010475R9999 | |
| | | 4 | 1000 | 1 | TZ324 | 2CPX010476R9999 | |
| | | 5 | 1250 | 1 | TZ325 | 2CPX010477R9999 | |
| | | 6 | 1500 | 1 | TZ326 | 2CPX010478R9999 | |
| **Clamp**<br>For cable fastening rail | | | | | | | |
| From 22 - 28 mm | | | | 1 | ZK143 | 2CPX060005R9999 | |
| From 40 - 46 mm | | | | 1 | ZK144 | 2CPX060006R9999 | |
| From 64 - 70 mm | | | | 1 | ZK145 | 2CPX060007R9999 | |

* From 4-panel cabinets on, an additional one is included in the scope of delivery

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Lock replacement parts


TZ507


TZ508


ZH130


ZH132


ZH134


ZH137


TZ503


TZ504


TZ505


TZ506


TZ510


ZH142

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Latch plates for operating pins** | | | | |
| For operating pin 3 mm (standard)*<br>and 5 mm (similar to RAL 9005) | 1 | TZ507 | 2CPX010491R9999 | |
| For triangular and square operating pin and for Daimer Benz insert | 1 | TZ508 | 2CPX010492R9999 | |
| **Operating pins** | | | | |
| Double-bit, 3 mm* | 1 | ZH130 | 2CPX060490R9999 | |
| Double bit 5 mm | 1 | ZH131 | 2CPX060491R9999 | |
| Triangular 7 mm | 1 | ZH132 | 2CPX060492R9999 | |
| Triangular 8 mm | 1 | ZH133 | 2CPX060493R9999 | |
| Square 6 mm | 1 | ZH134 | 2CPX060494R9999 | |
| Square 7 mm | 1 | ZH135 | 2CPX060495R9999 | |
| Square 8 mm | 1 | ZH136 | 2CPX060496R9999 | |
| Daimler-Benz | 1 | ZH137 | 2CPX060497R9999 | |
| **Latch handle** | | | | |
| With latch plate and lock | 1 | TZ503 | 2CPX010487R9999 | |
| With latch plate, without lock | 1 | TZ504 | 2CPX010488R9999 | |
| **T-handle** | | | | |
| With latch plate and lock | 1 | TZ505 | 2CPX010489R9999 | |
| With latch plate, without lock | 1 | TZ506 | 2CPX010490R9999 | |
| Swivel handle<br>For semi-cylinder 40 mm (30/10) with lead sealable cap | 1 | TZ510 | 2CPX010494R9999 | |
| Dummy insert<br>Instead of a semi-cylinder for the swivel handle TZ510 | 1 | ZH142 | 2CPX060502R9999 | |

*Accessory included in the scope of delivery

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Lock replacement parts


ZH91


ZH160


ZH157


ZH162


ZH165


TZ206


TZ511


TZ501


TZ502

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Universal key<br>Double bit 3 mm/5 mm<br>Triangular 8 mm, square 6 mm/8 mm | 1 | ZH91 | 2CPX066091R9999 | |
| Double bit 3 mm* | 1 | ZH160 | 2CPX060660R9999 | |
| Double bit 5 mm | 1 | ZH161 | 2CPX060661R9999 | |
| Triangular 7 mm | 1 | ZH157 | 2CPX060657R9999 | |
| Triangular 8 mm | 1 | ZH158 | 2CPX060658R9999 | |
| Square 6 mm | 1 | ZH162 | 2CPX060662R9999 | |
| Square 7 mm | 1 | ZH163 | 2CPX060663R9999 | |
| Square 8 mm | 1 | ZH164 | 2CPX060664R9999 | |
| Daimler-Benz | 1 | ZH165 | 2CPX060665R9999 | |
| **Espagnolette closure** | | | | |
| 4 GU = 600 mm with lock part* | 1 | TZ204 | 2CPX010462R9999 | |
| 5 GU = 750 mm with lock part* | 1 | TZ205 | 2CPX010463R9999 | |
| 6 GU = 900 mm with lock part* | 1 | TZ206 | 2CPX010464R9999 | |
| 7 GU = 1050 mm with lock part* | 1 | TZ207 | 2CPX010465R9999 | |
| 8 GU = 1200 mm with lock part* | 1 | TZ208 | 2CPX010466R9999 | |
| 9 GU = 1350 mm with lock part* | 1 | TZ209 | 2CPX010467R9999 | |
| 12 GU = 1800 mm with lock part* | 1 | TZ212 | 2CPX010468R9999 | |
| Espagnolette guide* | 1 | TZ511 | 2CPX010495R9999 | |
| Shoe*<br>For espagnolette closure | 1 | TZ501 | 2CPX010485R9999 | |
| Rubber seal*<br>For double-wing door | 1 | TZ502 | 2CPX010486R9999 | |

*Accessory included in the scope of delivery

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## General accessories



TZ601



TZ604



TZ605



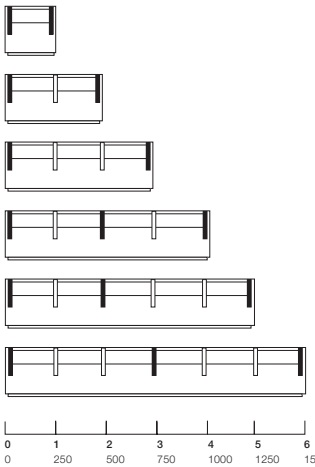
TZ606

| Article | Pieces | Unmounted Order details Type | Order code | Price | Installed to the cabinet* Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **Mounting rails**[*1] | | | | | | | |
| For mounting frame holder | | | | | | | |
| For TwinLine-G | 1 | TZ601 | 2CPX010779R9999 | | TZ601A | 2CPX010787R9999 | |
| | 10 | TZ601P10 | 2CPX010814R9999 | | | | |
| | 100 | TZ601P100 | 2CPX010815R9999 | | | | |
| For TwinLine-L | 1 | TZ602 | 2CPX010780R9999 | | TZ602A | 2CPX010788R9999 | |
| | 10 | TZ602P10 | 2CPX010816R9999 | | | | |
| | 100 | TZ602P100 | 2CPX010817R9999 | | | | |
| For TwinLine-W | 1 | TZ603 | 2CPX010781R9999 | | TZ603A | 2CPX010789R9999 | |
| | 10 | TZ603P10 | 2CPX010818R9999 | | | | |
| | 100 | TZ603P100 | 2CPX010819R9999 | | | | |
| Mounting frame holder centre[*1] For an extension with WR and EDF mounting frame or to connect mounting plates in series (please order ZT 606 EDF adapters separately) | 1 | TZ604 | 2CPX010782R9999 | | TZ604A | 2CPX010790R9999 | |
| | 10 | TZ604P10 | 2CPX010820R9999 | | | | |
| | 100 | TZ604P100 | 2CPX010821R9999 | | | | |
| Mounting frame holder[*1] left or right For an extension with WR and EDF mounting frame or with mounting plates or centre support rails (please order ZT 606 EDF adapters separately) | 1 | TZ605 | 2CPX010783R9999 | | TZ605A | 2CPX010791R9999 | |
| | 10 | TZ605P10 | 2CPX010822R9999 | | | | |
| | 100 | TZ605P100 | 2CPX010823R9999 | | | | |
| EDF adapter[*1] for mounting frame holder For an extension with EDF mounting frame | 1 | TZ606 | 2CPX010784R9999 | | TZ606A | 2CPX010792R9999 | |
| | 10 | TZ606P10 | 2CPX010824R9999 | | | | |
| | 100 | TZ606P100 | 2CPX010825R9999 | | | | |

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules
*1 Required as accessory depending on the type of assembly

### Position of the mounting rails with mounting frame holder

**Top view**




**Factory-assembled**
Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional

**Upgradeable**
Depending on the configuration. additional mounting rails, mounting frame holders and EDF-adapters will be required

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## General accessories



TZ313

| Article | Pieces | Unmounted | | | Installed to the cabinet* | | |
|---|---|---|---|---|---|---|---|
| | | Order details | | | Order details | | |
| | | Type | Order code | Price | Type | Order code | Price |
| **Cable fastening rails** | | | | | | | |
| For the assembly in the cabinet, for TwinLine-L and TwinLine-W | | | | | | | |
| Panel width 1 = 250 mm | 1 | TZ311 | 2CPX010469R9999 | | TZ311A | 2CPX010808R9999 | |
| Panel width 2 = 500 mm | 1 | TZ312 | 2CPX010470R9999 | | TZ312A | 2CPX010809R9999 | |
| Panel width 3 = 750 mm | 1 | TZ313 | 2CPX010471R9999 | | TZ313A | 2CPX010810R9999 | |
| Panel width 4 = 1000 mm | 1 | TZ314 | 2CPX010472R9999 | | TZ314A | 2CPX010811R9999 | |
| Panel width 5 = 1250 mm | 1 | TZ315 | 2CPX010785R9999 | | TZ315A | 2CPX010812R9999 | |
| Panel width 6 = 1500 mm | 1 | TZ316 | 2CPX010786R9999 | | TZ316A | 2CPX010813R9999 | |



TZ413

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Centre support rails** | | | | | | | |
| For fastening in the floor-standing cabinet two additional mounting frame holders TZ605 and two mounting rails (depending on the cabinet depth TZ601, TZ602 or TZ603) required for fastening | | | | | | | |
| Panel width 1 = 250 mm | 1 | TZ411 | 2CPX010479R9999 | | TZ411A | 2CPX010802R9999 | |
| Panel width 2 = 500 mm | 1 | TZ412 | 2CPX010480R9999 | | TZ412A | 2CPX010803R9999 | |
| Panel width 3 = 750 mm | 1 | TZ413 | 2CPX010481R9999 | | TZ413A | 2CPX010804R9999 | |
| Panel width 4 = 1000 mm | 1 | TZ414 | 2CPX010482R9999 | | TZ414A | 2CPX010805R9999 | |
| Panel width 5 = 1250 mm | 1 | TZ415 | 2CPX010483R9999 | | TZ415A | 2CPX010806R9999 | |
| Panel width 6 = 1500 mm | 1 | TZ416 | 2CPX010484R9999 | | TZ416A | 2CPX010807R9999 | |

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules



ZW125P4



TZ615P4



TZ609



TZ608



TZ607

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| External mounting brackets*<br>For mounting cabinets on the wall | 4 | ZW125P4 | 2CPX062461R9999 | |
| Transport lugs | 4 | TZ615P4 | 2CPX010510R9999 | |
| **Protective frame IP55 to combine cabinets in series** | | | | |
| Required for double insulated cabinets | 1 | TZ609 | 2CPX010504R9999 | |
| Required for earthed cabinets | 1 | TZ626 | 2CPX010778R9999 | |
| Connection set IP55 for cabinet to cabinet connections<br>For connecting wall-mounting cabinets side by side or stacked, order one TZ608<br>Order two TZ608 for floor-standing cabinets | 1 | TZ608 | 2CPX010503R9999 | |
| Door hinge: 180 degree* | 1 | TZ607 | 2CPX010502R9999 | |

*Included in the scope of delivery

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## General accessories


ZL8


TZ617P10


TZ628P10


ZA6


ZA5


ZA123


ZA18


ZA116

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Door earthing set 10 mm² | 1 | ZL8 | 2CPX038001R9999 | |
| Locking plug* | 10 | TZ617P10 | 2CPX010512R9999 | |
| Locking plug* For door hinge knockouts | 10 | TZ628P10 | | |
| Document holder DIN A4 Self-adhesive with transparent sleeve | 1 | ZA6 | 2CPX038227R9999 | |
| | 10 | ZA6P10 | 2CPX062380R9999 | |
| Self-adhesive with transparent sleeve and reinforced back | 10 | ZA61P10 | 2CPX062375R9999 | |
| Document holder DIN A4 | 1 | ZA13 | 2CPX038233R9999 | |
| Self-adhesive | 10 | ZA13P10 | 2CPX062381R9999 | |
| Document holder DIN A5 | 1 | ZA5 | 2CPX038228R9999 | |
| Self-adhesive | 10 | ZA5P10 | 2CPX062382R9999 | |
| **Document holder support plate** | | | | |
| For document holder ZA13, to screw on to the door strengthening profiles | 1 | ZA123 | 2CPX038471R9999 | |
| For document holder ZA5, to screw on to the door strengthening profiles | 1 | ZA125 | 2CPX038472R9999 | |
| Spray paint can Colour RAL 7005, 150 ml | 1 | ZA18 | 2CPX038237R9999 | |
| Colour RAL 7035, 150 ml | 1 | ZA16 | 2CPX038235R9999 | |
| Touch-up applicator Colour RAL 7035, 12 ml | 1 | ZA116 | 2CPX039042R9999 | |

*Included in the scope of delivery

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Accessories Meter applications



TZ614



TZ610



TZ616



TZ618



TZ620



TZ622



TZ623

| Article | Pieces | Unmounted<br>Order details<br>Type | Order code | Price | Installed to the cabinet*<br>Order details<br>Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| **Cover rail**[*1] | | | | | | | |
| For the installation of meter panels to cover the fastening points of the centre support rail in the double insulated floor-standing cabinet | | | | | | | |
| For TwinLine-G | 1 | TZ612 | 2CPX010507R9999 | | TZ612A | 2CPX010796R9999 | |
| For TwinLine-L | 1 | TZ613 | 2CPX010508R9999 | | TZ613A | 2CPX010797R9999 | |
| For TwinLine-W | 1 | TZ614 | 2CPX010509R9999 | | TZ614A | 2CPX010798R9999 | |
| Internal cladding*[1]<br>For meter panels,<br>depth = 225 - 350 mm<br>Additional profile for meter panels with 150 mm cable connection area on top, in the double insulated cabinet | 1 | TZ610 | 2CPX010505R9999 | | TZ610A | 2CPX010795R9999 | |
| Mounting set<br>For the installation of meter panels, in floor standing cabinets, order one additional TZ616 per panel width (250 mm) | 1 | TZ616 | 2CPX010511R9999 | | TZ616A | 2CPX010799R9999 | |
| **Touch guard for earthed cabinets** | | | | | | | |
| For single meter panels | 1 | TZ618 | 2CPX010673R9999 | | TZ618A | 2CPX010800R9999 | |
| For double meter panels | 1 | TZ619 | 2CPX010674R9999 | | TZ619A | 2CPX010801R9999 | |
| **Cabinet to cabinet connector** | | | | | | | |
| 5-pole, for Cu 12 x 5 mm | 1 | TZ620 | 2CPX010793R9999 | | - | - | |
| 5-pole, for Cu 2 x 12 x 5 mm | 1 | TZ621 | 2CPX010794R9999 | | - | - | |
| Glanding box made of sheet steel:<br>IP55. RAL7035<br>For TwinLine meter cabinet,<br>bottom connection<br>For cables of not more than 120 mm$^2$<br>For spreading the feeder cables<br>With cable fastening rail<br>H x W x D: 500 x 300 x 225 mm | 1 | TZ622 | 2CPX010448R9999 | | - | - | |
| Glanding box made of sheet steel:<br>IP55. RAL7035<br>For TwinLine meter cabinets,<br>lateral connection<br>For cables of not more than 120 mm$^2$<br>For spreading the feeder cables<br>With cable fastening rail<br>H x W x D: 500 x 300 x 225 mm<br>Busbar system Cu 12 x 5 mm, 5 pole<br>with 1 connector to the busbar system of the meter panel | 1 | TZ623 | 2CPX010449R9999 | | - | - | |

> For more information on incoming enclosures, see section Meter cabinets

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Sheet steel doors with 180 degree door hinge



TZB306

| Height | | Width | | Order details | | |
|---|---|---|---|---|---|---|
| GU | OH | PW | Remark | Type | Order code | Price |
| 4 | 0 | 1 | | TZB104 | 2CPX010528R9999 | |
| | | 2 | | TZB204 | 2CPX010535R9999 | |
| | | 3 | | TZB304 | 2CPX010542R9999 | |
| | | 4* | Door left | TZB204L | 2CPX010549R9999 | |
| | | | Door right | TZB204R | 2CPX010550R9999 | |
| | | 5* | Door left | TZB304L | 2CPX010563R9999 | |
| | | | Door right | TZB204R | 2CPX010550R9999 | |
| 5 | 1 | 1 | | TZB105 | 2CPX010529R9999 | |
| | | 2 | | TZB205 | 2CPX010536R9999 | |
| | | 3 | | TZB305 | 2CPX010543R9999 | |
| | | 4* | Door left | TZB205L | 2CPX010551R9999 | |
| | | | Door right | TZB205R | 2CPX010552R9999 | |
| | | 5* | Door left | TZB305L | 2CPX010564R9999 | |
| | | | Door right | TZB205R | 2CPX010552R9999 | |
| 6 | 2 | 1 | | TZB106 | 2CPX010530R9999 | |
| | | 2 | | TZB206 | 2CPX010537R9999 | |
| | | 3 | | TZB306 | 2CPX010544R9999 | |
| | | 4* | Door left | TZB206L | 2CPX010553R9999 | |
| | | | Door right | TZB206R | 2CPX010554R9999 | |
| | | 5* | Door left | TZB306L | 2CPX010565R9999 | |
| | | | Door right | TZB206R | 2CPX010554R9999 | |
| 7 | 3 | 1 | | TZB107 | 2CPX010531R9999 | |
| | | 2 | | TZB207 | 2CPX010538R9999 | |
| | | 3 | | TZB307 | 2CPX010545R9999 | |
| | | 4* | Door left | TZB207L | 2CPX010555R9999 | |
| | | | Door right | TZB207R | 2CPX010556R9999 | |
| | | 5* | Door left | TZB307L | 2CPX010566R9999 | |
| | | | Door right | TZB207R | 2CPX010556R9999 | |
| 8 | 4 | 1 | | TZB108 | 2CPX010532R9999 | |
| | | 2 | | TZB208 | 2CPX010539R9999 | |
| | | 3 | | TZB308 | 2CPX010546R9999 | |
| | | 4* | Door left | TZB208L | 2CPX010557R9999 | |
| | | | Door right | TZB208R | 2CPX010558R9999 | |
| | | 5* | Door left | TZB308L | 2CPX010567R9999 | |
| | | | Door right | TZB208R | 2CPX010558R9999 | |
| 9 | 5 | 1 | | TZB109 | 2CPX010533R9999 | |
| | | 2 | | TZB209 | 2CPX010540R9999 | |
| | | 3 | | TZB309 | 2CPX010547R9999 | |
| | | 4* | Door left | TZB209L | 2CPX010559R9999 | |
| | | | Door right | TZB209R | 2CPX010560R9999 | |
| | | 5* | Door left | TZB309L | 2CPX010568R9999 | |
| | | | Door right | TZB209R | 2CPX010560R9999 | |
| 12 | 8 | 1 | | TZB112 | 2CPX010534R9999 | |
| | | 2 | | TZB212 | 2CPX010541R9999 | |
| | | 3 | | TZB312 | 2CPX010548R9999 | |
| | | 4* | Door left | TZB212L | 2CPX010561R9999 | |
| | | | Door right | TZB212R | 2CPX010562R9999 | |
| | | 5* | Door left | TZB312L | 2CPX010569R9999 | |
| | | | Door right | TZB212R | 2CPX010562R9999 | |
| | | 6* | Door left | TZB312L | 2CPX010569R9999 | |
| | | | Door right | TZB312R | 2CPX010570R9999 | |

*4 or more panels wide: double-wing doors

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Transparent doors with 180 degree door hinge



TZT206

| Height | | Width | | Order details | | |
|---|---|---|---|---|---|---|
| GU | OH | PW | Remark | Type | Order code | Price |
| 4 | 0 | 2 | | TZT204 | 2CPX010860R9999 | |
| | | 3 | | TZT304 | 2CPX010867R9999 | |
| | | 4* | Door left | TZT204L | 2CPX010874R9999 | |
| | | | Door right | TZT204R | 2CPX010875R9999 | |
| | | 5* | Door left | TZT304L | 2CPX010888R9999 | |
| | | | Door right | TZT204R | 2CPX010875R9999 | |
| 5 | 1 | 2 | | TZT205 | 2CPX010861R9999 | |
| | | 3 | | TZT305 | 2CPX010868R9999 | |
| | | 4* | Door left | TZT205L | 2CPX010876R9999 | |
| | | | Door right | TZT205R | 2CPX010877R9999 | |
| | | 5* | Door left | TZT305L | 2CPX010889R9999 | |
| | | | Door right | TZT205R | 2CPX010877R9999 | |
| 6 | 2 | 2 | | TZT206 | 2CPX010862R9999 | |
| | | 3 | | TZT306 | 2CPX010869R9999 | |
| | | 4* | Door left | TZT206L | 2CPX010878R9999 | |
| | | | Door right | TZT206R | 2CPX010879R9999 | |
| | | 5* | Door left | TZT306L | 2CPX010890R9999 | |
| | | | Door right | TZT206R | 2CPX010879R9999 | |
| 7 | 3 | 2 | | TZT207 | 2CPX010863R9999 | |
| | | 3 | | TZT307 | 2CPX010870R9999 | |
| | | 4* | Door left | TZT207L | 2CPX010880R9999 | |
| | | | Door right | TZT207R | 2CPX010881R9999 | |
| | | 5* | Door left | TZT307L | 2CPX010891R9999 | |
| | | | Door right | TZT207R | 2CPX010881R9999 | |
| 8 | 4 | 2 | | TZT208 | 2CPX010864R9999 | |
| | | 3 | | TZT308 | 2CPX010871R9999 | |
| | | 4* | Door left | TZT208L | 2CPX010882R9999 | |
| | | | Door right | TZT208R | 2CPX010883R9999 | |
| | | 5* | Door left | TZT308L | 2CPX010892R9999 | |
| | | | Door right | TZT208R | 2CPX010883R9999 | |
| 9 | 5 | 2 | | TZT209 | 2CPX010865R9999 | |
| | | 3 | | TZT309 | 2CPX010872R9999 | |
| | | 4* | Door left | TZT209L | 2CPX010884R9999 | |
| | | | Door right | TZT209R | 2CPX010885R9999 | |
| | | 5* | Door left | TZT309L | 2CPX010893R9999 | |
| | | | Door right | TZT209R | 2CPX010885R9999 | |
| 12 | 8 | 2 | | TZT212 | 2CPX010866R9999 | |
| | | 3 | | TZT312 | 2CPX010873R9999 | |
| | | 4* | Door left | TZT212L | 2CPX010886R9999 | |
| | | | Door right | TZT212R | 2CPX010887R9999 | |
| | | 5* | Door left | TZT312L | 2CPX010894R9999 | |
| | | | Door right | TZT212R | 2CPX010887R9999 | |
| | | 6* | Door left | TZT312L | 2CPX010894R9999 | |
| | | | Door right | TZT312R | 2CPX010895R9999 | |

*4 or more panels wide: double-wing doors

# Enclosures
## TwinLine N 55 wall-mounting and floor-standing cabinets IP55
## Touch guard




TZP306

| Height | | Width | Touch guard Unmounted | | | Touch guard Installed to the cabinet* | | |
|---|---|---|---|---|---|---|---|---|
| GU | OH | | Order details | | | Order details | | |
| | | PW | Type | Order code | Price | Type | Order code | Price |
| 4 | 0 | 1 | TZP104 | 2CPX010625R9999 | | TZP104A | 2CPX010708R9999 | |
| | | 2 | TZP204 | 2CPX010632R9999 | | TZP204A | 2CPX010715R9999 | |
| | | 3 | TZP304 | 2CPX010639R9999 | | TZP304A | 2CPX010722R9999 | |
| | | 4 | TZP404 | 2CPX010646R9999 | | TZP404A | 2CPX010729R9999 | |
| | | 5 | TZP504 | 2CPX010653R9999 | | TZP504A | 2CPX010736R9999 | |
| 5 | 1 | 1 | TZP105 | 2CPX010626R9999 | | TZP105A | 2CPX010709R9999 | |
| | | 2 | TZP205 | 2CPX010633R9999 | | TZP205A | 2CPX010716R9999 | |
| | | 3 | TZP305 | 2CPX010640R9999 | | TZP305A | 2CPX010723R9999 | |
| | | 4 | TZP405 | 2CPX010647R9999 | | TZP405A | 2CPX010730R9999 | |
| | | 5 | TZP505 | 2CPX010654R9999 | | TZP505A | 2CPX010737R9999 | |
| 6 | 2 | 1 | TZP106 | 2CPX010627R9999 | | TZP106A | 2CPX010710R9999 | |
| | | 2 | TZP206 | 2CPX010634R9999 | | TZP206A | 2CPX010717R9999 | |
| | | 3 | TZP306 | 2CPX010641R9999 | | TZP306A | 2CPX010724R9999 | |
| | | 4 | TZP406 | 2CPX010648R9999 | | TZP406A | 2CPX010731R9999 | |
| | | 5 | TZP506 | 2CPX010655R9999 | | TZP506A | 2CPX010738R9999 | |
| 7 | 3 | 1 | TZP107 | 2CPX010628R9999 | | TZP107A | 2CPX010711R9999 | |
| | | 2 | TZP207 | 2CPX010635R9999 | | TZP207A | 2CPX010718R9999 | |
| | | 3 | TZP307 | 2CPX010642R9999 | | TZP307A | 2CPX010725R9999 | |
| | | 4 | TZP407 | 2CPX010649R9999 | | TZP407A | 2CPX010732R9999 | |
| | | 5 | TZP507 | 2CPX010656R9999 | | TZP507A | 2CPX010739R9999 | |
| 8 | 4 | 1 | TZP108 | 2CPX010629R9999 | | TZP108A | 2CPX010712R9999 | |
| | | 2 | TZP208 | 2CPX010636R9999 | | TZP208A | 2CPX010719R9999 | |
| | | 3 | TZP308 | 2CPX010643R9999 | | TZP308A | 2CPX010726R9999 | |
| | | 4 | TZP408 | 2CPX010650R9999 | | TZP408A | 2CPX010733R9999 | |
| | | 5 | TZP508 | 2CPX010657R9999 | | TZP508A | 2CPX010740R9999 | |
| 9 | 5 | 1 | TZP109 | 2CPX010630R9999 | | TZP109A | 2CPX010713R9999 | |
| | | 2 | TZP209 | 2CPX010637R9999 | | TZP209A | 2CPX010720R9999 | |
| | | 3 | TZP309 | 2CPX010644R9999 | | TZP309A | 2CPX010727R9999 | |
| | | 4 | TZP409 | 2CPX010651R9999 | | TZP409A | 2CPX010734R9999 | |
| | | 5 | TZP509 | 2CPX010658R9999 | | TZP509A | 2CPX010741R9999 | |
| 12 | 8 | 1 | TZP112 | 2CPX010631R9999 | | TZP112A | 2CPX010714R9999 | |
| | | 2 | TZP212 | 2CPX010638R9999 | | TZP212A | 2CPX010721R9999 | |
| | | 3 | TZP312 | 2CPX010645R9999 | | TZP312A | 2CPX010728R9999 | |
| | | 4 | TZP412 | 2CPX010652R9999 | | TZP412A | 2CPX010735R9999 | |
| | | 5 | TZP512 | 2CPX010659R9999 | | TZP512A | 2CPX010742R9999 | |
| | | 6 | TZP612 | 2CPX010660R9999 | | TZP612A | 2CPX010743R9999 | |

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules
> The touch guard in the double insulated cabinet is included in the scope of delivery

# Enclosures

## TwinLine N 55 wall-mounting and floor-standing cabinets IP55

## Mounting plates, sheet steel, 2 mm, galvanised




TZM306

| Height | | Width | Mounting plate unmounted | | | Mounting plate Installed to the cabinet*1 | | |
|---|---|---|---|---|---|---|---|---|
| GU | OH | | Order details | | | Order details | | |
| | | PW | Type | Order code | Price | Type | Order code | Price |
| 4 | 0 | 1 | TZM104 | 2CPX010591R9999 | | TZM104A | 2CPX010744R9999 | |
| | | 2 | TZM204 | 2CPX010598R9999 | | TZM204A | 2CPX010750R9999 | |
| | | 3 | TZM304 | 2CPX010605R9999 | | TZM304A | 2CPX010756R9999 | |
| | | 4 | TZM404 | 2CPX010612R9999 | | TZM404A | 2CPX010762R9999 | |
| | | 5 | TZM504 | 2CPX010619R9999 | | TZM504A | 2CPX010768R9999 | |
| 5 | 1 | 1 | TZM105 | 2CPX010592R9999 | | TZM105A | 2CPX010745R9999 | |
| | | 2 | TZM205 | 2CPX010599R9999 | | TZM205A | 2CPX010751R9999 | |
| | | 3 | TZM305 | 2CPX010606R9999 | | TZM305A | 2CPX010757R9999 | |
| | | 4 | TZM405 | 2CPX010613R9999 | | TZM405A | 2CPX010763R9999 | |
| | | 5 | TZM505 | 2CPX010620R9999 | | TZM505A | 2CPX010769R9999 | |
| 6 | 2 | 1 | TZM106 | 2CPX010593R9999 | | TZM106A | 2CPX010746R9999 | |
| | | 2 | TZM206 | 2CPX010600R9999 | | TZM206A | 2CPX010752R9999 | |
| | | 3 | TZM306 | 2CPX010607R9999 | | TZM306A | 2CPX010758R9999 | |
| | | 4 | TZM406 | 2CPX010614R9999 | | TZM406A | 2CPX010764R9999 | |
| | | 5 | TZM506 | 2CPX010621R9999 | | TZM506A | 2CPX010770R9999 | |
| 7 | 3 | 1 | TZM107 | 2CPX010594R9999 | | TZM107A | 2CPX010747R9999 | |
| | | 2 | TZM207 | 2CPX010601R9999 | | TZM207A | 2CPX010753R9999 | |
| | | 3 | TZM307 | 2CPX010608R9999 | | TZM307A | 2CPX010759R9999 | |
| | | 4 | TZM407 | 2CPX010615R9999 | | TZM407A | 2CPX010765R9999 | |
| | | 5 | TZM507 | 2CPX010622R9999 | | TZM507A | 2CPX010771R9999 | |
| 8 | 4 | 1 | TZM108 | 2CPX010595R9999 | | TZM108A | 2CPX010748R9999 | |
| | | 2 | TZM208 | 2CPX010602R9999 | | TZM208A | 2CPX010754R9999 | |
| | | 3 | TZM308 | 2CPX010609R9999 | | TZM308A | 2CPX010760R9999 | |
| | | 4 | TZM408 | 2CPX010616R9999 | | TZM408A | 2CPX010766R9999 | |
| | | 5 | TZM508 | 2CPX010623R9999 | | TZM508A | 2CPX010772R9999 | |
| 9 | 5 | 1 | TZM109 | 2CPX010596R9999 | | TZM109A | 2CPX010749R9999 | |
| | | 2 | TZM209 | 2CPX010603R9999 | | TZM209A | 2CPX010755R9999 | |
| | | 3 | TZM309 | 2CPX010610R9999 | | TZM309A | 2CPX010761R9999 | |
| | | 4 | TZM409 | 2CPX010617R9999 | | TZM409A | 2CPX010767R9999 | |
| | | 5 | TZM509 | 2CPX010624R9999 | | TZM509A | 2CPX010773R9999 | |
| 12 | 8 | 1 | RM18 | 2CPX045909R9999 | | RM18A | 2CPX010774R9999 | |
| | | 2 | RM28 | 2CPX045910R9999 | | RM28A | 2CPX010775R9999 | |
| | | 3 | RM38 | 2CPX045911R9999 | | RM38A | 2CPX010776R9999 | |
| | | 4 | RM48 | 2CPX045912R9999 | | RM48A | 2CPX010777R9999 | |
| | | 5* | RM28 | 2CPX045910R9999 | | RM28A | 2CPX010775R9999 | |
| | | | RM38 | 2CPX045911R9999 | | RM38A | 2CPX010776R9999 | |
| | | 6* | RM38 | 2CPX045911R9999 | | RM38A | 2CPX010776R9999 | |
| | | | RM38 | 2CPX045911R9999 | | RM38A | 2CPX010776R9999 | |

*In floor-standing cabinets from 5-panel width two separate mounting plates

*1 Factory assembled mounting plate only in combination with empty cabinet

# Enclosures
## Modular distribution panel system CombiLine N
## Technical specifications

| Standards/regulations | |
|---|---|
| DIN EN 61439-1/-2/-3 (VDE 0660-600-1/-2/-3)*1 | ■ |
| DIN 43880 (DIN rail mounting devices) | ■ |
| Degree of protection | IPXXB, IP2XC with protection rating II |

| Electrical characteristics | | | |
|---|---|---|---|
| Rated impulse withstand voltage ($U_{imp}$) | 6 kV | | |
| Overvoltage category | III | | |
| Pollution degree | 3 | | |
| Protection class | I / II | | |
| Rated current of the switchgear assembly ($I_{nA}$) | up to 850 A | | |
| | **Rail mounting devices acc. to DIN 43880** | **Fuse-Switch disconnectors** | **Busbars-systems** |
| Rated peak withstand current ($I_{pk}$) 0.1 sec. | 25 kA | up to 52 kA | up to 74 kA |
| Rated short-time withstand current ($I_{cw}$) 1.0 sec. | 12.5 kA | up to 25 kA | up to 35 kA |
| | - | Values on request | see chapter busbar systems |
| Rated frequency (f) | 50 Hz | | |
| Rated insulation voltage ($U_i$) | 690 V AC | | |
| Rated operational voltage ($U_e$) | 400 V AC | | |

*1 For the allowed heat-up values of switchgear assemblies of the TwinLine wall-mounting and floor-standing cabinet systems, please refer to the information provided in the TwinLine chapter

# Enclosures
## Modular distribution panel system CombiLine N
## DIN rail mounting devices 125 mm / 150 mm spacing



MG303



MG433

- Extension with DIN rails 35 x 15 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- For DIN rail mounting devices according to DIN 43880
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Order details | | | Order details | | |
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Order code | Price | Type | Order code | Price |
| **125 mm DIN rail spacing** | | | | | | | | | | | | | |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 120 | MBG101 | 2CPX041650R9999 | | MG101 | 2CPX041200R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 120 | MBG201 | 2CPX041651R9999 | | MG201 | 2CPX041201R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 120 | MBG301 | 2CPX041652R9999 | | MG301 | 2CPX041202R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 120 | MBG102 | 2CPX041653R9999 | | MG102 | 2CPX041203R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 120 | MBG202 | 2CPX041655R9999 | | MG202 | 2CPX041205R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 120 | MBG302 | 2CPX041657R9999 | | MG302 | 2CPX041207R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 120 | MBG103 | 2CPX041659R9999 | | MG103 | 2CPX041209R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 120 | MBG203 | 2CPX041661R9999 | | MG203 | 2CPX041211R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 120 | MBG303 | 2CPX041663R9999 | | MG303 | 2CPX041213R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 120 | MBG104 | 2CPX041665R9999 | | MG104 | 2CPX041215R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 120 | MBG204 | 2CPX041667R9999 | | MG204 | 2CPX041217R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 120 | MBG304 | 2CPX041669R9999 | | MG304 | 2CPX041219R9999 | |
| 5 | 750 | 1 | 250 | 60 | ■ | ■ | 120 | MBG105 | 2CPX041671R9999 | | MG105 | 2CPX041221R9999 | |
| | | 2 | 500 | 120 | ■ | ■ | 120 | MBG205 | 2CPX041673R9999 | | MG205 | 2CPX041223R9999 | |
| | | 3 | 750 | 180 | ■ | ■ | 120 | MBG305 | 2CPX041675R9999 | | MG305 | 2CPX041225R9999 | |
| **150 mm DIN rail spacing** | | | | | | | | | | | | | |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 120 | MBG101 | 2CPX041650R9999 | | MG101 | 2CPX041200R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 120 | MBG201 | 2CPX041651R9999 | | MG201 | 2CPX041201R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 120 | MBG301 | 2CPX041652R9999 | | MG301 | 2CPX041202R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 120 | MBG412 | 2CPX041654R9999 | | MG412 | 2CPX041204R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 120 | MBG422 | 2CPX041656R9999 | | MG422 | 2CPX041206R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 120 | MBG432 | 2CPX041658R9999 | | MG432 | 2CPX041208R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 120 | MBG413 | 2CPX041660R9999 | | MG413 | 2CPX041210R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 120 | MBG423 | 2CPX041662R9999 | | MG423 | 2CPX041212R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 120 | MBG433 | 2CPX041664R9999 | | MG433 | 2CPX041214R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 120 | MBG414 | 2CPX041666R9999 | | MG414 | 2CPX041216R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 120 | MBG424 | 2CPX041668R9999 | | MG424 | 2CPX041218R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 120 | MBG434 | 2CPX041670R9999 | | MG434 | 2CPX041220R9999 | |
| 5 | 750 | 1 | 250 | 60 | ■ | ■ | 120 | MBG415 | 2CPX041672R9999 | | MG415 | 2CPX041222R9999 | |
| | | 2 | 500 | 120 | ■ | ■ | 120 | MBG425 | 2CPX041674R9999 | | MG425 | 2CPX041224R9999 | |
| | | 3 | 750 | 180 | ■ | ■ | 120 | MBG435 | 2CPX041676R9999 | | MG435 | 2CPX041226R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Modular distribution panel system CombiLine N
## Touch guard



MB218

- Module as touch guard or for an extension with system parts
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Order details | | | Order details | | |
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Order code | Price | Type | Order code | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 120 | MBB116 | 2CPX041722R9999 | | MB116 | 2CPX041257R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 120 | MBB216 | 2CPX041723R9999 | | MB216 | 2CPX041258R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 120 | MBB316 | 2CPX041724R9999 | | MB316 | 2CPX041259R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 120 | MBB117 | 2CPX041725R9999 | | MB117 | 2CPX041260R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 120 | MBB217 | 2CPX041726R9999 | | MB217 | 2CPX041261R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 120 | MBB317 | 2CPX041727R9999 | | MB317 | 2CPX041262R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 120 | MBB118 | 2CPX041728R9999 | | MB118 | 2CPX041263R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 120 | MBB218 | 2CPX041729R9999 | | MB218 | 2CPX041264R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 120 | MBB318 | 2CPX041730R9999 | | MB318 | 2CPX041265R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 120 | MBB119 | 2CPX041731R9999 | | MB119 | 2CPX041266R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 120 | MBB219 | 2CPX041732R9999 | | MB219 | 2CPX041267R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 120 | MBB319 | 2CPX041733R9999 | | MB319 | 2CPX041268R9999 | |
| 5 | 750 | 1 | 250 | 60 | ■ | ■ | 120 | MBB120 | 2CPX041734R9999 | | MB120 | 2CPX041269R9999 | |
| | | 2 | 500 | 120 | ■ | ■ | 120 | MBB220 | 2CPX041735R9999 | | MB220 | 2CPX041270R9999 | |
| | | 3 | 750 | 180 | ■ | ■ | 120 | MBB320 | 2CPX041736R9999 | | MB320 | 2CPX041271R9999 | |



MB200

- Touch guard cover including the cover holder
- The covers are outside the 150 mm grid spacing
- To have a grid unit, always 2 pieces must be inserted per modular system panel
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Order details | | | Order details | | |
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Order code | Price | Type | Order code | Price |
| 0.5 | 75 | 1 | 250 | 6 | ■ | ■ | 120 | MBB100 | 2CPX041427R9999 | | MB100 | 2CPX041422R9999 | |
| | | 2 | 500 | 12 | ■ | ■ | 120 | MBB200 | 2CPX041428R9999 | | MB200 | 2CPX041423R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

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**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Modular distribution panel system CombiLine N
## Mounting plates



MM213

- Mounting plates made of sheet steel, 2 mm
- Mounting plates steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 103 up to 158 mm
- Usable width for devices: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 200 | MBM111 | 2CPX041707R9999 | | MM111 | 2CPX041242R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 200 | MBM211 | 2CPX041708R9999 | | MM211 | 2CPX041243R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 200 | MBM311 | 2CPX041709R9999 | | MM311 | 2CPX041244R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 200 | MBM112 | 2CPX041710R9999 | | MM112 | 2CPX041245R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 200 | MBM212 | 2CPX041711R9999 | | MM212 | 2CPX041246R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 200 | MBM312 | 2CPX041712R9999 | | MM312 | 2CPX041247R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 200 | MBM113 | 2CPX041713R9999 | | MM113 | 2CPX041248R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 200 | MBM213 | 2CPX041714R9999 | | MM213 | 2CPX041249R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 200 | MBM313 | 2CPX041715R9999 | | MM313 | 2CPX041250R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 200 | MBM114 | 2CPX041716R9999 | | MM114 | 2CPX041251R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 200 | MBM214 | 2CPX041717R9999 | | MM214 | 2CPX041252R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 200 | MBM314 | 2CPX041718R9999 | | MM314 | 2CPX041253R9999 | |
| 5 | 750 | 1 | 250 | 60 | ■ | ■ | 200 | MBM115 | 2CPX041719R9999 | | MM115 | 2CPX041254R9999 | |
| | | 2 | 500 | 120 | ■ | ■ | 200 | MBM215 | 2CPX041720R9999 | | MM215 | 2CPX041255R9999 | |
| | | 3 | 750 | 180 | ■ | ■ | 200 | MBM315 | 2CPX041721R9999 | | MM315 | 2CPX041256R9999 | |



MM113K

- Mounting plates made of sheet steel, 2 mm
- Mounting plate solid assembly
- Usable depth from 82 mm
- Usable width for devices: 1 panel wide, 200 mm
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 120 | MBM112K | 2CPX041640R9999 | | MM112K | 2CPX041117R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 120 | MBM113K | 2CPX041641R9999 | | MM113K | 2CPX041118R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 120 | MBM114K | 2CPX041642R9999 | | MM114K | 2CPX041119R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Horizontal terminals



MK208

- With horizontal DIN rails 35 x 15 mm
- DIN rail steplessly depth-adjustable
- Usable depth with ZW39P2 - from 68 mm to 115 mm
- Usable depth with ZW59P2 - from 90 mm to 145 mm
- Usable width for terminals: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)
- For earthed and double insulated assemblies ⏚
- The mounting frame must be ordered separately
- **Note:** The upper DIN rail is mounted with at least one pair of short deep-mounting brackets (ZW39P2)
- **Module design:**
  1 GU 1 X ZW39P2
  2 GU: 1 X ZW39P2, 1 X ZW59P2
  3 GU: 2 X ZW39P2, 1 X ZW59P2
  4 GU: 2 X ZW39P2, 2 X ZW59P2
  5 GU: 2 X ZW39P2, 3 X ZW59P2

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 200 | MBK106 | 2CPX041677R9999 | | MK106 | 2CPX041227R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 200 | MBK206 | 2CPX041679R9999 | | MK206 | 2CPX041228R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 200 | MBK306 | 2CPX041681R9999 | | MK306 | 2CPX041229R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 200 | MBK107 | 2CPX041683R9999 | | MK107 | 2CPX041230R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 200 | MBK207 | 2CPX041685R9999 | | MK207 | 2CPX041231R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 200 | MBK307 | 2CPX041687R9999 | | MK307 | 2CPX041232R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 200 | MBK108 | 2CPX041689R9999 | | MK108 | 2CPX041233R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 200 | MBK208 | 2CPX041691R9999 | | MK208 | 2CPX041234R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 200 | MBK308 | 2CPX041693R9999 | | MK308 | 2CPX041235R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 200 | MBK109 | 2CPX041695R9999 | | MK109 | 2CPX041236R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 200 | MBK209 | 2CPX041697R9999 | | MK209 | 2CPX041237R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 200 | MBK309 | 2CPX041699R9999 | | MK309 | 2CPX041238R9999 | |
| 5 | 750 | 1 | 250 | 60 | ■ | ■ | 200 | MBK110 | 2CPX041701R9999 | | MK110 | 2CPX041239R9999 | |
| | | 2 | 500 | 120 | ■ | ■ | 200 | MBK210 | 2CPX041703R9999 | | MK210 | 2CPX041240R9999 | |
| | | 3 | 750 | 180 | ■ | ■ | 200 | MBK310 | 2CPX041705R9999 | | MK310 | 2CPX041241R9999 | |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## Modular distribution panel system CombiLine N
## Horizontal / vertical terminals



MK108K

- With horizontal DIN rails 35 x 7.5 mm
- DIN rails fixed using ZK90P2 insulator
- Usable depth from 51 mm
- Usable width for terminals: 1 panel wide: 214 mm, 2 panel wide: 464 mm
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)
- For double insulated installations ⧈
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 120 | MBK106K | 2CPX041632R9999 | | MK106K | 2CPX041112R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 120 | MBK206K | 2CPX041633R9999 | | MK206K | 2CPX041113R9999 | |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 120 | MBK107K | 2CPX041634R9999 | | MK107K | 2CPX041114R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 120 | MBK207K | 2CPX041635R9999 | | MK207K | 2CPX041115R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 120 | MBK108K | 2CPX041636R9999 | | MK108K | 2CPX041116R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MK213

- With vertical DIN rails 35 x 15 mm
- DIN rails completely steplessly depth-adjustable using deep-mounting bracket ZW39P2
- Usable depth from 66 up to 113 mm
- Usable height for terminals: 2 GU 244 mm, 3 GU 438 mm, 4 GU 591 mm
- For earthed and double insulated assemblies ⏚⧈
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 200 | MBK112 | 2CPX041837R9999 | | MK112 | 2CPX041127R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 200 | MBK212 | 2CPX041838R9999 | | MK212 | 2CPX041128R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 200 | MBK312 | 2CPX041839R9999 | | MK312 | 2CPX041129R9999 | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 200 | MBK113 | 2CPX041840R9999 | | MK113 | 2CPX041130R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 200 | MBK213 | 2CPX041841R9999 | | MK213 | 2CPX041131R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 200 | MBK313 | 2CPX041842R9999 | | MK313 | 2CPX041132R9999 | |
| 4 | 600 | 1 | 250 | 48 | ■ | ■ | 200 | MBK114 | 2CPX041843R9999 | | MK114 | 2CPX041133R9999 | |
| | | 2 | 500 | 96 | ■ | ■ | 200 | MBK214 | 2CPX041844R9999 | | MK214 | 2CPX041134R9999 | |
| | | 3 | 750 | 144 | ■ | ■ | 200 | MBK314 | 2CPX041845R9999 | | MK314 | 2CPX041135R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 40 mm, horizontal, M(B)S...24



MS324

- Busbar centre spacing 40 mm
- For not more than 5-pole busbars, see below
- With busbar holder type ZB5
- With end cover type ZX172
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 360 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 200*1 | MBS124 | 2CPX041737R9999 | | MS124 | 2CPX041272R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 200*1 | MBS224 | 2CPX041738R9999 | | MS224 | 2CPX041273R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 225*1 | MBS324 | 2CPX041739R9999 | | MS324 | 2CPX041274R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2015

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- Not more than 5 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 1 | 181 | 1 | ZX2001 | 2CPX042200R9999 | | ZXM2001 | 2CPX042300R9999 | |
| | | 2 | 431 | 1 | ZX2002 | 2CPX042201R9999 | | ZXM2002 | 2CPX042301R9999 | |
| | | 3 | 681 | 1 | ZX2003 | 2CPX042202R9999 | | ZXM2003 | 2CPX042302R9999 | |
| | | 4 | 931 | 1 | ZX2004 | 2CPX042203R9999 | | ZXM2004 | 2CPX042303R9999 | |
| | | 5 | 1181 | 1 | ZX2005 | 2CPX042204R9999 | | ZXM2005 | 2CPX042304R9999 | |
| | | 6 | 1431 | 1 | ZX2006 | 2CPX042792R9999 | | ZXM2006 | 2CPX042814R9999 | |
| 12 x 10 | 360 | 1 | 181 | 1 | ZX2007 | 2CPX042205R9999 | | ZXM2007 | 2CPX042305R9999 | |
| | | 2 | 431 | 1 | ZX2008 | 2CPX042206R9999 | | ZXM2008 | 2CPX042306R9999 | |
| | | 3 | 681 | 1 | ZX2009 | 2CPX042207R9999 | | ZXM2009 | 2CPX042307R9999 | |
| | | 4 | 931 | 1 | ZX2010 | 2CPX042208R9999 | | ZXM2010 | 2CPX042308R9999 | |
| | | 5 | 1181 | 1 | ZX2011 | 2CPX042209R9999 | | ZXM2011 | 2CPX042309R9999 | |
| | | 6 | 1431 | 1 | ZX2012 | 2CPX042793R9999 | | ZXM2012 | 2CPX042815R9999 | |
| 20 x 5 | 320 | 1 | 181 | 1 | ZX2013 | 2CPX042210R9999 | | ZXM2013 | 2CPX042310R9999 | |
| | | 2 | 431 | 1 | ZX2014 | 2CPX042211R9999 | | ZXM2014 | 2CPX042311R9999 | |
| | | 3 | 681 | 1 | ZX2015 | 2CPX042212R9999 | | ZXM2015 | 2CPX042312R9999 | |
| | | 4 | 931 | 1 | ZX2016 | 2CPX042213R9999 | | ZXM2016 | 2CPX042313R9999 | |
| | | 5 | 1181 | 1 | ZX2017 | 2CPX042214R9999 | | ZXM2017 | 2CPX042314R9999 | |
| | | 6 | 1431 | 1 | ZX2018 | 2CPX042794R9999 | | ZXM2018 | 2CPX042816R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 60 mm, horizontal, M(B)S...27



MS327

- Busbar centre spacing 60 mm
- For 3-pole busbars, see below
- With busbar holder type ZX151
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 630 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connection
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 215*1 | MBS127 | 2CPX041740R9999 | | MS127 | 2CPX041275R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 215*1 | MBS227 | 2CPX041741R9999 | | MS227 | 2CPX041276R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 225*1 | MBS327 | 2CPX041742R9999 | | MS327 | 2CPX041277R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

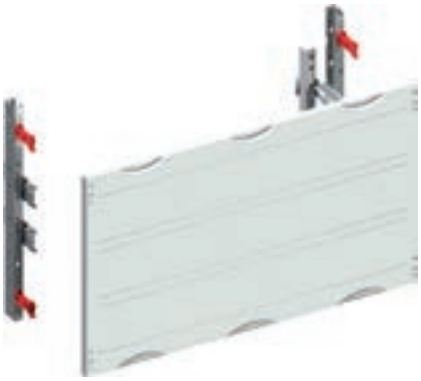


ZX2027

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 30 x 5 | 440 | 1 | 184 | 1 | ZX2019 | 2CPX042215R9999 | | ZXM2019 | 2CPX042315R9999 | |
| | | 2 | 434 | 1 | ZX2020 | 2CPX042216R9999 | | ZXM2020 | 2CPX042316R9999 | |
| | | 3 | 684 | 1 | ZX2021 | 2CPX042217R9999 | | ZXM2021 | 2CPX042317R9999 | |
| | | 4 | 934 | 1 | ZX2022 | 2CPX042218R9999 | | ZXM2022 | 2CPX042318R9999 | |
| | | 5 | 1184 | 1 | ZX2023 | 2CPX042219R9999 | | ZXM2023 | 2CPX042319R9999 | |
| | | 6 | 1434 | 1 | ZX2024 | 2CPX042795R9999 | | ZXM2024 | 2CPX042817R9999 | |
| 30 x 10 | 630 | 1 | 184 | 1 | ZX2025 | 2CPX042220R9999 | | ZXM2025 | 2CPX042320R9999 | |
| | | 2 | 434 | 1 | ZX2026 | 2CPX042221R9999 | | ZXM2026 | 2CPX042321R9999 | |
| | | 3 | 684 | 1 | ZX2027 | 2CPX042222R9999 | | ZXM2027 | 2CPX042322R9999 | |
| | | 4 | 934 | 1 | ZX2028 | 2CPX042223R9999 | | ZXM2028 | 2CPX042323R9999 | |
| | | 5 | 1184 | 1 | ZX2029 | 2CPX042224R9999 | | ZXM2029 | 2CPX042324R9999 | |
| | | 6 | 1434 | 1 | ZX2030 | 2CPX042796R9999 | | ZXM2030 | 2CPX042818R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 100 mm, horizontal, M(B)S...31



MS331

- Busbar centre spacing 100 mm
- For 3-pole busbars, see below
- With busbar holder type ZX520
- Rated current ($I_n$) max. 850 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 36 | | ■ | 275 | MBS131 | 2CPX041743R9999 | | MS131 | 2CPX041278R9999 | |
| | | 2 | 500 | 72 | | ■ | 275 | MBS231 | 2CPX041744R9999 | | MS231 | 2CPX041279R9999 | |
| | | 3 | 750 | 108 | | ■ | 275 | MBS331 | 2CPX041745R9999 | | MS331 | 2CPX041280R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2033

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 40 x 10 | 850 | 1 | 184 | 1 | ZX2031 | 2CPX042225R9999 | | ZXM2031 | 2CPX042325R9999 | |
| | | 2 | 434 | 1 | ZX2032 | 2CPX042226R9999 | | ZXM2032 | 2CPX042326R9999 | |
| | | 3 | 684 | 1 | ZX2033 | 2CPX042227R9999 | | ZXM2033 | 2CPX042327R9999 | |
| | | 4 | 934 | 1 | ZX2034 | 2CPX042228R9999 | | ZXM2034 | 2CPX042328R9999 | |
| | | 5 | 1184 | 1 | ZX2035 | 2CPX042229R9999 | | ZXM2035 | 2CPX042329R9999 | |
| | | 6 | 1434 | 1 | ZX2036 | 2CPX042797R9999 | | ZXM2036 | 2CPX042819R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system, vertical, 45° inclined, M(B)S...28



MS128

- With 4 pole busbars 30 x 5 mm, drillings with M6 thread and connection with M8 captive nuts for the access
- With busbar holder type ZX518
- Rated current ($I_n$) max. 440 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 24 | 250 | 24 | ■ | ■ | 200 | MBS128 | 2CPX041648R9999 | | MS128 | 2CPX041123R9999 | |
| 3 | 450 | 72 | 500 | 72 | ■ | ■ | 200 | MBS228 | 2CPX041649R9999 | | MS228 | 2CPX041124R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N
## N/PE busbar system, horizontal, M(B)N...69



MN369

- For 2-pole busbars, see below
- With busbar holder type ZX518
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 320 A
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 200 | MBN169 | 2CPX041424R9999 | | MN169 | 2CPX041419R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 200 | MBN269 | 2CPX041425R9999 | | MN269 | 2CPX041420R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 200 | MBN369 | 2CPX041426R9999 | | MN369 | 2CPX041421R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2066

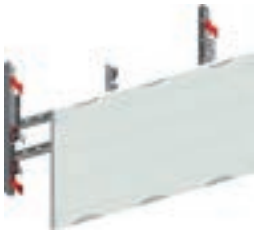
- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- 2 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 1 | 204 | 1 | ZX2046 | 2CPX042538R9999 | | ZXM2046 | 2CPX042458R9999 | |
| | | 2 | 454 | 1 | ZX2047 | 2CPX042539R9999 | | ZXM2047 | 2CPX042459R9999 | |
| | | 3 | 704 | 1 | ZX2048 | 2CPX042540R9999 | | ZXM2048 | 2CPX042460R9999 | |
| | | 4 | 954 | 1 | ZX2049 | 2CPX042541R9999 | | ZXM2049 | 2CPX042461R9999 | |
| | | 5 | 1204 | 1 | ZX2050 | 2CPX042542R9999 | | ZXM2050 | 2CPX042462R9999 | |
| | | 6 | 1454 | 1 | ZX2051 | 2CPX042798R9999 | | ZXM2051 | 2CPX042820R9999 | |
| 20 x 5 | 320 | 1 | 204 | 1 | ZX2064 | 2CPX042553R9999 | | ZXM2064 | 2CPX042473R9999 | |
| | | 2 | 454 | 1 | ZX2065 | 2CPX042554R9999 | | ZXM2065 | 2CPX042474R9999 | |
| | | 3 | 704 | 1 | ZX2066 | 2CPX042555R9999 | | ZXM2066 | 2CPX042475R9999 | |
| | | 4 | 954 | 1 | ZX2067 | 2CPX042556R9999 | | ZXM2067 | 2CPX042476R9999 | |
| | | 5 | 1204 | 1 | ZX2068 | 2CPX042557R9999 | | ZXM2068 | 2CPX042477R9999 | |
| | | 6 | 1454 | 1 | ZX2069 | 2CPX042799R9999 | | ZXM2069 | 2CPX042821R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## N/PE busbar system and terminals, M(B)N...74+75



MN374



MN375

- For 2-pole busbars, see below
- With busbar holder type ZX518
- With end cover type ZX519
- 3 panels and more: additional centre support
- DIN rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 90 up to 145 mm
- Usable width for terminals: 1 panel wide: 138 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Rated current ($I_n$) max. 440 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately

**With one additional DIN rail for terminals**

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | ■ | ■ | 200 | MBN174 | 2CPX041746R9999 | | MN174 | 2CPX041281R9999 | |
| | | 2 | 500 | 48 | ■ | ■ | 200 | MBN274 | 2CPX041748R9999 | | MN274 | 2CPX041282R9999 | |
| | | 3 | 750 | 72 | ■ | ■ | 200 | MBN374 | 2CPX041750R9999 | | MN374 | 2CPX041283R9999 | |
| **With two additional DIN rails for terminals** | | | | | | | | | | | | | |
| 3 | 450 | 1 | 250 | 36 | ■ | ■ | 200 | MBN175 | 2CPX041752R9999 | | MN175 | 2CPX041284R9999 | |
| | | 2 | 500 | 72 | ■ | ■ | 200 | MBN275 | 2CPX041754R9999 | | MN275 | 2CPX041285R9999 | |
| | | 3 | 750 | 108 | ■ | ■ | 200 | MBN375 | 2CPX041756R9999 | | MN375 | 2CPX041286R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX1015

| Cu bus-bar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 1 | 246 | 1 | ZX1001 | 2CPX041870R9999 | | ZXM1001 | 2CPX041480R9999 | |
| | | 2 | 496 | 1 | ZX1002 | 2CPX041871R9999 | | ZXM1002 | 2CPX041481R9999 | |
| | | 3 | 746 | 1 | ZX1003 | 2CPX041872R9999 | | ZXM1003 | 2CPX041482R9999 | |
| | | 4 | 996 | 1 | ZX1004 | 2CPX041873R9999 | | ZXM1004 | 2CPX041483R9999 | |
| | | 5 | 1246 | 1 | ZX1005 | 2CPX041874R9999 | | ZXM1005 | 2CPX041484R9999 | |
| | | 6 | 1496 | 1 | ZX1006 | 2CPX042800R9999 | | ZXM1006 | 2CPX042822R9999 | |
| 20 x 5 | 320 | 1 | 246 | 1 | ZX1013 | 2CPX041882R9999 | | ZXM1013 | 2CPX041492R9999 | |
| | | 2 | 496 | 1 | ZX1014 | 2CPX041883R9999 | | ZXM1014 | 2CPX041493R9999 | |
| | | 3 | 746 | 1 | ZX1015 | 2CPX041884R9999 | | ZXM1015 | 2CPX041494R9999 | |
| | | 4 | 996 | 1 | ZX1016 | 2CPX041885R9999 | | ZXM1016 | 2CPX041495R9999 | |
| | | 5 | 1246 | 1 | ZX1017 | 2CPX041886R9999 | | ZXM1017 | 2CPX041496R9999 | |
| | | 6 | 1496 | 1 | ZX1018 | 2CPX042801R9999 | | ZXM1018 | 2CPX042823R9999 | |
| 30 x 5 | 440 | 1 | 246 | 1 | ZX1019 | 2CPX041888R9999 | | ZXM1019 | 2CPX041498R9999 | |
| | | 2 | 496 | 1 | ZX1020 | 2CPX041889R9999 | | ZXM1020 | 2CPX041499R9999 | |
| | | 3 | 746 | 1 | ZX1021 | 2CPX041890R9999 | | ZXM1021 | 2CPX041500R9999 | |
| | | 4 | 996 | 1 | ZX1022 | 2CPX041891R9999 | | ZXM1022 | 2CPX041501R9999 | |
| | | 5 | 1246 | 1 | ZX1023 | 2CPX041892R9999 | | ZXM1023 | 2CPX041502R9999 | |
| | | 6 | 1496 | 1 | ZX1024 | 2CPX042802R9999 | | ZXM1024 | 2CPX042824R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## N/PE busbar system and terminals, M(B)N...62+63



MN362



MN363

- For 2-pole busbars, see below
- With busbar holder type ZX149
- 3 panels and more: additional centre support
- DIN rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 90 up to 145 mm
- Usable width for terminals: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Rated current ($I_n$) max. 630 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

**With one additional DIN rail for terminals**

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 24 | | ■ | 275 | MBN162 | 2CPX041758R9999 | | MN162 | 2CPX041287R9999 | |
| | | 2 | 500 | 48 | | ■ | 275 | MBN262 | 2CPX041760R9999 | | MN262 | 2CPX041288R9999 | |
| | | 3 | 750 | 72 | | ■ | 275 | MBN362 | 2CPX041762R9999 | | MN362 | 2CPX041289R9999 | |
| **With two additional DIN rails for terminals** | | | | | | | | | | | | | |
| 3 | 450 | 1 | 250 | 36 | | ■ | 275 | MBN163 | 2CPX041764R9999 | | MN163 | 2CPX041290R9999 | |
| | | 2 | 500 | 72 | | ■ | 275 | MBN263 | 2CPX041766R9999 | | MN263 | 2CPX041291R9999 | |
| | | 3 | 750 | 108 | | ■ | 275 | MBN363 | 2CPX041768R9999 | | MN363 | 2CPX041292R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2084

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 30 x 10 | 630 | 1 | 201 | 1 | ZX2082 | 2CPX042568R9999 | | ZXM2082 | 2CPX042488R9999 | |
| | | 2 | 451 | 1 | ZX2083 | 2CPX042569R9999 | | ZXM2083 | 2CPX042489R9999 | |
| | | 3 | 701 | 1 | ZX2084 | 2CPX042570R9999 | | ZXM2084 | 2CPX042490R9999 | |
| | | 4 | 951 | 1 | ZX2085 | 2CPX042571R9999 | | ZXM2085 | 2CPX042491R9999 | |
| | | 5 | 1201 | 1 | ZX2086 | 2CPX042572R9999 | | ZXM2086 | 2CPX042492R9999 | |
| | | 6 | 1451 | 1 | ZX2087 | 2CPX042803R9999 | | ZXM2087 | 2CPX042825R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 60 mm, horizontal, M(B)R...02(B)



MR302B



MR302

- Busbar centre spacing 60 mm
- For 3-pole busbars
- 32 mm spacing between Cu busbar and cover
- With busbar holder type ZX146
- With end cover ZX172
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 440 A
- Mounting fuse socket, see below
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

**Equipped module for devices with 3-pole vertical mounting fuse sockets, $I_n$ up to max. 250 A**

| Height | | Width | | | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | D02 elements | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 5*4 | 24 | ■ | ■ | 120 | - | - | - | MR102B | 2CPX041409R9999 | |
| | | 2 | 500 | 14*4 | 48 | ■ | ■ | 200 | - | - | - | MR202B | 2CPX041410R9999 | |
| | | 3 | 750 | 24*4 | 72 | | ■ | 225 | - | - | - | MR302B | 2CPX041411R9999 | |

**Unequipped module for devices for the vertical assembly of mounting fuse sockets, D0 fuse switch disconnectors or size 00 fuse switch disconnectors*3, $I_n$ up to max. 440 A**

| Height | | Width | | Usable Width | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 1 x 215*4 | 24 | ■ | ■ | 120*3 | MBR102 | 2CPX041825R9999 | | MR102 | 2CPX041406R9999 | |
| | | 2 | 500 | 1 x 465*4 | 48 | ■ | ■ | 200*3 | MBR202 | 2CPX041826R9999 | | MR202 | 2CPX041407R9999 | |
| | | 3 | 750 | 2 x 320*4 | 72 | | ■ | 225*3 | MBR302 | 2CPX041827R9999 | | MR302 | 2CPX041408R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame| *3 The cabinet depth depends on the depth dimensions of the devices (matching of the cabinet views with the dimension information of the devices) For TwinLine cabinet to cabinet connections the changed usable width must be taken into account



ZE60



ZE61



ZE62



ZA4P10

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Neozed mounting fuse socket E18, width 26 mm | 1 | ZE60 | 2CPX061045R9999 | |
| For push-in guard rings, 3-pole, | 10 | ZE60P10 | 2CPX062400R9999 | |
| with covers and labelling strips, | | | | |
| with E18 thread, fuses max. 63 A | | | | |
| Diazed mounting fuse socket E27, width 42 mm | 1 | ZE61 | 2CPX061046R9999 | |
| For push-in guard rings, 3-pole, | 10 | ZE61P10 | 2CPX062401R9999 | |
| with covers and labelling strips, | | | | |
| with E27 thread, fuses max. 25 A | | | | |
| Diazed mounting fuse socket E33, width 56 mm | 1 | ZE62 | 2CPX061047R9999 | |
| For push-in guard rings, 3-pole, | 10 | ZE62P10 | 2CPX062402R9999 | |
| with covers and labelling strips, | | | | |
| with E33 thread, fuses max. 63 A | | | | |
| Trim covers instead of mounting fuse sockets | 10 | ZA4P10 | 2CPX062374R9999 | |
| Colour similar to RAL 7035 | | | | |
| to comply with the touch protection IPXXC | | | | |
| Usable width from 16 up to 34 mm | | | | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 60 mm, horizontal, M(B)R...02



ZX1015

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

| Cu bus-bar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | (100)* | 1 | 246 | 1 | ZX1001 | 2CPX041870R9999 | | ZXM1001 | 2CPX041480R9999 | |
| | 250 | 2 | 496 | 1 | ZX1002 | 2CPX041871R9999 | | ZXM1002 | 2CPX041481R9999 | |
| | | 3 | 746 | 1 | ZX1003 | 2CPX041872R9999 | | ZXM1003 | 2CPX041482R9999 | |
| | | 4 | 996 | 1 | ZX1004 | 2CPX041873R9999 | | ZXM1004 | 2CPX041483R9999 | |
| | | 5 | 1246 | 1 | ZX1005 | 2CPX041874R9999 | | ZXM1005 | 2CPX041484R9999 | |
| | | 6 | 1496 | 1 | ZX1006 | 2CPX042800R9999 | | ZXM1006 | 2CPX042822R9999 | |
| 20 x 5 | (250)* | 1 | 246 | 1 | ZX1013 | 2CPX041882R9999 | | ZXM1013 | 2CPX041492R9999 | |
| | 320 | 2 | 496 | 1 | ZX1014 | 2CPX041883R9999 | | ZXM1014 | 2CPX041493R9999 | |
| | | 3 | 746 | 1 | ZX1015 | 2CPX041884R9999 | | ZXM1015 | 2CPX041494R9999 | |
| | | 4 | 996 | 1 | ZX1016 | 2CPX041885R9999 | | ZXM1016 | 2CPX041495R9999 | |
| | | 5 | 1246 | 1 | ZX1017 | 2CPX041886R9999 | | ZXM1017 | 2CPX041496R9999 | |
| | | 6 | 1496 | 1 | ZX1018 | 2CPX042801R9999 | | ZXM1018 | 2CPX042823R9999 | |
| 30 x 5 | 440 | 1 | 246 | 1 | ZX1019 | 2CPX041888R9999 | | ZXM1019 | 2CPX041498R9999 | |
| | | 2 | 496 | 1 | ZX1020 | 2CPX041889R9999 | | ZXM1020 | 2CPX041499R9999 | |
| | | 3 | 746 | 1 | ZX1021 | 2CPX041890R9999 | | ZXM1021 | 2CPX041500R9999 | |
| | | 4 | 996 | 1 | ZX1022 | 2CPX041891R9999 | | ZXM1022 | 2CPX041501R9999 | |
| | | 5 | 1246 | 1 | ZX1023 | 2CPX041892R9999 | | ZXM1023 | 2CPX041502R9999 | |
| | | 6 | 1496 | 1 | ZX1024 | 2CPX042802R9999 | | ZXM1024 | 2CPX042824R9999 | |

*For the assembly with mounting fuse socket

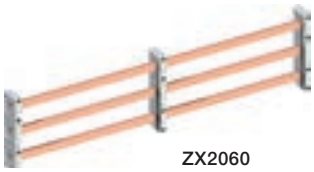
# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 60 mm, horizontal, M(B)R...03



MR303

| Height | | Width | | Usable width | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 165 | 36 | | ■ | 275*3 | MBR103 | 2CPX041830R9999 | | MR103 | 2CPX041414R9999 | |
| | | 2 | 500 | 415 | 72 | | ■ | 275*3 | MBR203 | 2CPX041831R9999 | | MR203 | 2CPX041415R9999 | |
| | | 3 | 750 | 665 | 108 | | ■ | 275*3 | MBR303 | 2CPX041832R9999 | | MR303 | 2CPX041416R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame | *3 The cabinet depth depends on the depth dimensions of the devices (matching of the cabinet views with the dimension information of the devices)



ZX2060

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 1 | 195 | 1 | ZX2040 | 2CPX042533R9999 | | ZXM2040 | 2CPX042453R9999 | |
| | | 2 | 445 | 1 | ZX2041 | 2CPX042534R9999 | | ZXM2041 | 2CPX042454R9999 | |
| | | 3 | 695 | 1 | ZX2042 | 2CPX042535R9999 | | ZXM2042 | 2CPX042455R9999 | |
| | | 4 | 945 | 1 | ZX2043 | 2CPX042536R9999 | | ZXM2043 | 2CPX042456R9999 | |
| | | 5 | 1195 | 1 | ZX2044 | 2CPX042537R9999 | | ZXM2044 | 2CPX042457R9999 | |
| | | 6 | 1445 | 1 | ZX2045 | 2CPX042804R9999 | | ZXM2045 | 2CPX042826R9999 | |
| 12 x 10 | 360 | 1 | 195 | 1 | ZX2052 | 2CPX042543R9999 | | ZXM2052 | 2CPX042463R9999 | |
| | | 2 | 445 | 1 | ZX2053 | 2CPX042544R9999 | | ZXM2053 | 2CPX042464R9999 | |
| | | 3 | 695 | 1 | ZX2054 | 2CPX042545R9999 | | ZXM2054 | 2CPX042465R9999 | |
| | | 4 | 945 | 1 | ZX2055 | 2CPX042546R9999 | | ZXM2055 | 2CPX042466R9999 | |
| | | 5 | 1195 | 1 | ZX2056 | 2CPX042547R9999 | | ZXM2056 | 2CPX042467R9999 | |
| | | 6 | 1445 | 1 | ZX2057 | 2CPX042805R9999 | | ZXM2057 | 2CPX042827R9999 | |
| 20 x 5 | 320 | 1 | 195 | 1 | ZX2058 | 2CPX042548R9999 | | ZXM2058 | 2CPX042468R9999 | |
| | | 2 | 445 | 1 | ZX2059 | 2CPX042549R9999 | | ZXM2059 | 2CPX042469R9999 | |
| | | 3 | 695 | 1 | ZX2060 | 2CPX042550R9999 | | ZXM2060 | 2CPX042470R9999 | |
| | | 4 | 945 | 1 | ZX2061 | 2CPX042551R9999 | | ZXM2061 | 2CPX042471R9999 | |
| | | 5 | 1195 | 1 | ZX2062 | 2CPX042552R9999 | | ZXM2062 | 2CPX042472R9999 | |
| | | 6 | 1445 | 1 | ZX2063 | 2CPX042806R9999 | | ZXM2063 | 2CPX042828R9999 | |
| 30 x 5 | 440 | 1 | 195 | 1 | ZX2070 | 2CPX042558R9999 | | ZXM2070 | 2CPX042478R9999 | |
| | | 2 | 445 | 1 | ZX2071 | 2CPX042559R9999 | | ZXM2071 | 2CPX042479R9999 | |
| | | 3 | 695 | 1 | ZX2072 | 2CPX042560R9999 | | ZXM2072 | 2CPX042480R9999 | |
| | | 4 | 945 | 1 | ZX2073 | 2CPX042561R9999 | | ZXM2073 | 2CPX042481R9999 | |
| | | 5 | 1195 | 1 | ZX2074 | 2CPX042562R9999 | | ZXM2074 | 2CPX042482R9999 | |
| | | 6 | 1445 | 1 | ZX2075 | 2CPX042807R9999 | | ZXM2075 | 2CPX042829R9999 | |
| 30 x 10 | 630 | 1 | 195 | 1 | ZX2076 | 2CPX042563R9999 | | ZXM2076 | 2CPX042483R9999 | |
| | | 2 | 445 | 1 | ZX2077 | 2CPX042564R9999 | | ZXM2077 | 2CPX042484R9999 | |
| | | 3 | 695 | 1 | ZX2078 | 2CPX042565R9999 | | ZXM2078 | 2CPX042485R9999 | |
| | | 4 | 945 | 1 | ZX2079 | 2CPX042566R9999 | | ZXM2079 | 2CPX042486R9999 | |
| | | 5 | 1195 | 1 | ZX2080 | 2CPX042567R9999 | | ZXM2080 | 2CPX042487R9999 | |
| | | 6 | 1445 | 1 | ZX2081 | 2CPX042808R9999 | | ZXM2081 | 2CPX042830R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system 60 mm, vertical, M(B)R...H



MR102H

- Unequipped for devices for the horizontal installation of mounting fuse sockets, see below
- For 3-pole busbars, see below
- 32 mm spacing between Cu busbar and cover
- With busbar holder type ZX146
- Rated current ($I_n$) max. 250 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Cut-out height in | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 1 x 134 | 24 | ■ | ■ | 120 | MBR102H | 2CPX041828R9999 | | MR102H | 2CPX041412R9999 | |
| 3 | 450 | 1 | 250 | 1 x 295 | 36 | ■ | ■ | 200 | MBR103H | 2CPX041829R9999 | | MR103H | 2CPX041413R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2506

- Using continuous busbars, it is possible to combine different module widths within a single cabinet (see information height GU)
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Height | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | GU | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 100 | 2 | 178 | 1 | ZX2500 | 2CPX042877R9999 | | ZXM2500 | 2CPX042867R9999 | |
| | | 3 | 328 | 1 | ZX2501 | 2CPX042878R9999 | | ZXM2501 | 2CPX042868R9999 | |
| | | 4 (2 GU + 2 GU) | 478 | 1 | ZX2502 | 2CPX042879R9999 | | ZXM2502 | 2CPX042869R9999 | |
| | | 5 (2 GU + 3 GU) | 628 | 1 | ZX2503 | 2CPX042880R9999 | | ZXM2503 | 2CPX042870R9999 | |
| | | 6 (3 GU + 3 GU) | 778 | 1 | ZX2504 | 2CPX042881R9999 | | ZXM2504 | 2CPX042871R9999 | |
| 20x5 | 250 | 2 | 178 | 1 | ZX2505 | 2CPX042882R9999 | | ZXM2505 | 2CPX042872R9999 | |
| | | 3 | 328 | 1 | ZX2506 | 2CPX042883R9999 | | ZXM2506 | 2CPX042873R9999 | |
| | | 4 (2 GU + 2 GU) | 478 | 1 | ZX2507 | 2CPX042884R9999 | | ZXM2507 | 2CPX042874R9999 | |
| | | 5 (2 GU + 3 GU) | 628 | 1 | ZX2508 | 2CPX042885R9999 | | ZXM2508 | 2CPX042875R9999 | |
| | | 6 (3 GU + 3 GU) | 778 | 1 | ZX2509 | 2CPX042886R9999 | | ZXM2509 | 2CPX042876R9999 | |



ZE60



ZE61



ZE62



ZA4P10

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Neozed mounting fuse socket E18, width 26 mm | 1 | ZE60 | 2CPX061045R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E18 thread, fuses max. 63 A | 10 | ZE60P10 | 2CPX062400R9999 | |
| Diazed mounting fuse socket E27, width 42 mm | 1 | ZE61 | 2CPX061046R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E27 thread, fuses max. 25 A | 10 | ZE61P10 | 2CPX062401R9999 | |
| Diazed mounting fuse socket E33, width 56 mm | 1 | ZE62 | 2CPX061047R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E33 thread, fuses max. 63 A | 10 | ZE62P10 | 2CPX062402R9999 | |
| Trim covers instead of mounting fuse sockets Colour similar to RAL 7035 to comply with the touch protection IPXXC | 10 | ZA4P10 | 2CPX062374R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Size 00 fuse switch disconnectors, M(B)T...35+36+37(B)



MT337B

- Equipped with size 00 fuse switch disconnector 160 A, type ZH411, with trim covers
- With busbar system 320 A, 3-pole, M8 connection screws
- Rated current ($I_n$) max. 320 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 37 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MT135B module

| Height | | Width | | With disconnector | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 00 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 1 | 24 | ■ | ■ | 200 | - | - | - | MT135B | 2CPX042451R9999 | |
| | | 1 | 250 | 2 | 24 | ■ | ■ | 200 | - | - | - | MT136B | 2CPX041293R9999 | |
| | | 2 | 500 | 4 | 48 | ■ | ■ | 200 | - | - | - | MT236B | 2CPX041294R9999 | |
| | | 3 | 750 | 6 | 72 | ■ | ■ | 200 | - | - | - | MT336B | 2CPX041295R9999 | |
| 4 | 600 | 1 | 250 | 4 | 48 | ■ | ■ | 200 | - | - | - | MT137B | 2CPX041296R9999 | |
| | | 2 | 500 | 8 | 96 | ■ | ■ | 200 | - | - | - | MT237B | 2CPX041297R9999 | |
| | | 3 | 750 | 12 | 144 | | ■ | 200 | - | - | - | MT337B | 2CPX041298R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT337

- Unequipped module, prepared for size 00 fuse switch disconnector 160 A, of the following makes: ABB (ZH411, ZH412), without trim cover
- For busbar system 320 A, 3-pole
- Rated current ($I_n$) max. 320 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBT135 and MT135 modules

| Height | | Width | | For disconnectors | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 00 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 1 | 24 | ■ | ■ | 200 | MBT135 | 2CPX042452R9999 | | MT135 | 2CPX042450R9999 | |
| | | 1 | 250 | 2 | 24 | ■ | ■ | 200 | MBT136 | 2CPX041770R9999 | | MT136 | 2CPX041299R9999 | |
| | | 2 | 500 | 4 | 48 | ■ | ■ | 200 | MBT236 | 2CPX041771R9999 | | MT236 | 2CPX041300R9999 | |
| | | 3 | 750 | 6 | 72 | ■ | ■ | 200 | MBT336 | 2CPX041772R9999 | | MT336 | 2CPX041301R9999 | |
| 4 | 600 | 1 | 250 | 4 | 48 | ■ | ■ | 200 | MBT137 | 2CPX041773R9999 | | MT137 | 2CPX041302R9999 | |
| | | 2 | 500 | 8 | 96 | ■ | ■ | 200 | MBT237 | 2CPX041774R9999 | | MT237 | 2CPX041303R9999 | |
| | | 3 | 750 | 12 | 144 | | ■ | 200 | MBT337 | 2CPX041775R9999 | | MT337 | 2CPX041304R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Accessories for size 00 fuse switch disconnector modules



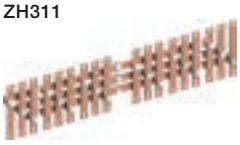
ZH411



ZH412



ZH311



ZH312



ZH427



ZH430



ZX148

| Article | To be used with module | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Size 00 fuse switch disconnector** | | | | | |
| Rated current ($I_n$) max. 160 A, without trim cover | | | | | |
| with M8 connection screws | M(B)T135 - M(B)T337 | 1 | ZH411 | 2CPX062947R9999 | |
| with clip terminals up to 50 mm² | M(B)T135 - M(B)T337 | 1 | ZH412 | 2CPX062948R9999 | |
| Busbar system 320 A | M(B)T136 | 1 | ZH214 | 2CPX060443R9999 | |
| Cu busbars 20 x 5 mm, 3-pole single-level with | M(B)T236 | 1 | ZH211 | 2CPX060440R9999 | |
| M8 connection screws | M(B)T336 | 1 | ZH311 | 2CPX060450R9999 | |
| Busbar system 320 A | M(B)T137 | 1 | ZH216 | 2CPX060445R9999 | |
| Cu busbars 20 x 5 mm, 3-pole two-level with | M(B)T137 | 5 | ZH216P5 | 2CPX062418R9999 | |
| M8 connection screws | M(B)T237 | 1 | ZH212 | 2CPX060441R9999 | |
| | M(B)T337 | 1 | ZH312 | 2CPX060451R9999 | |
| **Trim covers** | | | | | |
| For fuse switch disconnectors, Colour similar to RAL 7035 to comply with the touch protection IPXXC | | | | | |
| Single trim cover | 1 x M(B)T135* | 1 | ZH425 | 2CPX062952R9999 | |
| Double trim cover | 1 x M(B)T136 * | 1 | ZH426 | 2CPX062953R9999 | |
| | 2 x M(B)T236 * | | | | |
| | 2 x M(B)T137 * | | | | |
| | 4 x M(B)T237 * | | | | |
| Triple trim cover | 2 x M(B)T336 * | 1 | ZH427 | 2CPX062954R9999 | |
| | 4 x M(B)T337 * | | | | |
| **Trim covers, closed** | | | | | |
| Instead of fuse switch disconnector, Colour similar to RAL 7035 to comply with the touch protection IPXXC | | | | | |
| Single trim cover | M(B)T135 - M(B)T337 | 1 | ZH428 | 2CPX062955R9999 | |
| Double trim cover | M(B)T236 - M(B)T337 | 1 | ZH429 | 2CPX062956R9999 | |
| Triple trim cover | M(B)T336 - M(B)T337 | 1 | ZH430 | 2CPX062957R9999 | |
| Insulating plate | M(B)T135 - M(B)T337 | 1 | ZX148 | 2CPX044018R9999 | |
| For unoccupied busbar ends for | | | | | |
| size 00 fuse switch disconnector | | | | | |

*Number of pieces per fully equipped module

# Enclosures
## Modular distribution panel system CombiLine N
## Size 01 fuse switch disconnectors, M(B)T...42+43



MT343B

- Equipped with size 01 fuse switch disconnector 250 A, type ZH431, with trim covers
- With busbar system 3-pole, M10 connection screws
- Rated current ($I_n$) max. 440 A, single-level
- Rated current ($I_n$) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 24 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | With disconnector | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 1 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 1 | 36 | ■ | ■ | 200 | - | - | - | MT142B | 2CPX041305R9999 | |
| | | 2 | 500 | 2 | 72 | ■ | ■ | 200 | - | - | - | MT242B | 2CPX041306R9999 | |
| | | 3 | 750 | 3 | 108 | | ■ | 225 | - | - | - | MT342B | 2CPX041307R9999 | |
| 5 | 750 | 1 | 250 | 2 | 60 | ■ | ■ | 200 | - | - | - | MT143B | 2CPX041308R9999 | |
| | | 2 | 500 | 4 | 120 | | ■ | 225 | - | - | - | MT243B | 2CPX041309R9999 | |
| | | 3 | 750 | 6 | 180 | | ■ | 225 | - | - | - | MT343B | 2CPX041310R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT343

- Unequipped module, prepared for size 01 fuse switch disconnector 250 A, of the following makes: ABB (ZH431), without trim cover
- For busbar system 3-pole
- Rated current ($I_n$) max. 440 A, single-level
- Rated current ($I_n$) max. 630 A, double level
  **Important:** When assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | For disconnectors | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 1 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 1 | 36 | ■ | ■ | 200 | MBT142 | 2CPX041776R9999 | | MT142 | 2CPX041311R9999 | |
| | | 2 | 500 | 2 | 72 | ■ | ■ | 200 | MBT242 | 2CPX041777R9999 | | MT242 | 2CPX041312R9999 | |
| | | 3 | 750 | 3 | 108 | | ■ | 225 | MBT342 | 2CPX041778R9999 | | MT342 | 2CPX041313R9999 | |
| 5 | 750 | 1 | 250 | 2 | 60 | ■ | ■ | 200 | MBT143 | 2CPX041779R9999 | | MT143 | 2CPX041314R9999 | |
| | | 2 | 500 | 4 | 120 | | ■ | 225 | MBT243 | 2CPX041780R9999 | | MT243 | 2CPX041315R9999 | |
| | | 3 | 750 | 6 | 180 | | ■ | 225 | MBT343 | 2CPX041781R9999 | | MT343 | 2CPX041316R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

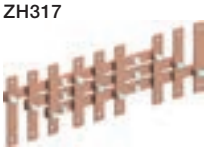
# Enclosures
## Modular distribution panel system CombiLine N
## Accessories for size 01 fuse switch disconnector modules



ZH431



ZH317



ZH318



ZH438



ZH440



ZX128

| Article | Application | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Size 1 fuse switch disconnector<br>Rated current ($I_n$) max. 250 A,<br>without trim cover,<br>with M10 connection screws | M(B)T142 - M(B)T343 | 1 | ZH431 | 2CPX062958R9999 | |
| Busbar system 440 A<br>Cu busbars 30 x 5 mm, 3-pole single-level with M10 connection screws | M(B)T242<br>M(B)T342 | 1<br>1 | ZH217<br>ZH317 | 2CPX060446R9999<br>2CPX060456R9999 | |
| Busbar system 630 A<br>Cu busbars 30 x 10 mm, 3-pole double-level with M10 connection screws | M(B)T243<br>M(B)T343 | 1<br>1 | ZH218<br>ZH318 | 2CPX060447R9999<br>2CPX060457R9999 | |
| Trim cover<br>Single cover for fuse switch disconnectors,<br>Colour similar to RAL 7035<br>to comply with the touch protection IPXXC | 1 x M(B)T142 *<br>2 x M(B)T242 *<br>3 x M(B)T342 *<br>2 x M(B)T143 *<br>4 x M(B)T243 *<br>6 x M(B)T343 * | 1 | ZH438 | 2CPX062961R9999 | |
| Trim cover, closed<br>Single cover instead of fuse switch disconnector,<br>Colour similar to RAL 7035,<br>to comply with the touch protection IPXXC | M(B)T142 - M(B)T343 | 1 | ZH440 | 2CPX062963R9999 | |
| Insulating plate<br>For unoccupied busbar ends for<br>size 1 fuse switch disconnector | M(B)T142 - M(B)T343 | 1 | ZX128 | 2CPX039128R9999 | |

*Number of pieces per fully equipped module

# Enclosures
## Modular distribution panel system CombiLine N
## Size 02 fuse switch disconnectors, M(B)T...44+45



MT345B

- Equipped with size 2 fuse switch disconnector 400 A, type ZH441, with trim covers
- With busbar system 3-pole, M10 connection screws
- Rated current ($I_n$) max. 440 A, single-level
- Rated current ($I_n$) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 43 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | With disconnector | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | 2 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 1 | 36 | ■ | ■ | 215 | - | - | - | MT144B | 2CPX041317R9999 | |
| | | 2 | 500 | 2 | 72 | ■ | ■ | 215 | - | - | - | MT244B | 2CPX041318R9999 | |
| | | 3 | 750 | 3 | 108 | | ■ | 225 | - | - | - | MT344B | 2CPX041319R9999 | |
| 5 | 750 | 1 | 250 | 2 | 60 | ■ | ■ | 215 | - | - | - | MT145B | 2CPX041320R9999 | |
| | | 2 | 500 | 4 | 120 | | ■ | 225 | - | - | - | MT245B | 2CPX041321R9999 | |
| | | 3 | 750 | 6 | 180 | | ■ | 225 | - | - | - | MT345B | 2CPX041322R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT345

- Unequipped module, prepared for size 2 fuse switch disconnector 400 A, of the following makes: ABB (ZH441), without trim cover
- For busbar system 3-pole
- Rated current ($I_n$) max. 440 A, single-level
- Rated current ($I_n$) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | For disconnectors | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | 2 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 1 | 36 | ■ | ■ | 215 | MBT144 | 2CPX041782R9999 | | MT144 | 2CPX041323R9999 | |
| | | 2 | 500 | 2 | 72 | ■ | ■ | 215 | MBT244 | 2CPX041783R9999 | | MT244 | 2CPX041324R9999 | |
| | | 3 | 750 | 3 | 108 | | ■ | 225 | MBT344 | 2CPX041784R9999 | | MT344 | 2CPX041325R9999 | |
| 5 | 750 | 1 | 250 | 2 | 60 | ■ | ■ | 215 | MBT145 | 2CPX041785R9999 | | MT145 | 2CPX041326R9999 | |
| | | 2 | 500 | 4 | 120 | | ■ | 225 | MBT245 | 2CPX041786R9999 | | MT245 | 2CPX041327R9999 | |
| | | 3 | 750 | 6 | 180 | | ■ | 225 | MBT345 | 2CPX041787R9999 | | MT345 | 2CPX041328R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

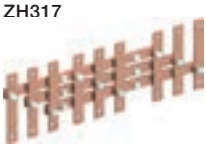
# Enclosures
## Modular distribution panel system CombiLine N
## Accessories for size 2 fuse switch disconnector modules



ZH441



ZH317



ZH318



ZH448



ZH442



ZX129

| Article | Application | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Size 2 fuse switch disconnector<br>Rated current ($I_n$) max. 400 A,<br>without trim cover,<br>with M10 connection screws | M(B)T144 - M(B)T345 | 1 | ZH441 | 2CPX062964R9999 | |
| Busbar system 440 A<br>Cu busbars 30 x 5 mm, 3-pole single-level with M10 connection screws | M(B)T244 | 1 | ZH217 | 2CPX060446R9999 | |
| | M(B)T344 | 1 | ZH317 | 2CPX060456R9999 | |
| Busbar system 630 A<br>Cu busbars 30 x 10 mm, 3-pole double-level with M10 connection screws | M(B)T245 | 1 | ZH218 | 2CPX060447R9999 | |
| | M(B)T345 | 1 | ZH318 | 2CPX060457R9999 | |
| **Trim covers**<br>For fuse switch disconnectors, Colour similar to RAL 7035<br>to comply with the touch protection IPXXC | | | | | |
| Single trim cover | 1 x M(B)T144 *<br>2 x M(B)T145 * | 1 | ZH447 | 2CPX039842R9999 | |
| Single trim cover | 1 x M(B)T344 *<br>2 x M(B)T345 * | 1 | ZH448 | 2CPX062965R9999 | |
| Double trim cover | 1 x M(B)T244 *<br>1 x M(B)T344 *<br>2 x M(B)T245 *<br>2 x M(B)T345 * | 1 | ZH449 | 2CPX062966R9999 | |
| Trim cover, closed<br>Single cover instead of fuse switch disconnector,<br>Colour similar to RAL 7035,<br>to comply with the touch protection IPXXC | M(B)T144 - M(B)T345 | 1 | ZH442 | 2CPX062939R9999 | |
| Insulating plate<br>For unoccupied busbar ends for<br>size 2 fuse switch disconnector | M(B)T144 - M(B)T345 | 1 | ZX129 | 2CPX039129R9999 | |

*Number of pieces per fully equipped module

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 40 mm for size 00 disconnector adapter, M(B)T...50(B)



MT350B

- Equipped module with size 00 fuse switch disconnector 160 A, type ZH413, with trim covers
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- With connection terminals 70 mm² (ZK83)
- Rated current ($I_n$) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 41 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | With disconnector | SU | EDF*1 | WR*2 | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 00 | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 2 | 500 | 1 x 4 | 48 | | ■ | 225 | - | - | - | MT250B | 2CPX041329R9999 | |
| | | 3 | 750 | 1 x 6 | 72 | | ■ | 225 | - | - | - | MT350B | 2CPX041330R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT350

- Unequipped module, prepared for size 00 fuse switch disconnector 160 A, of the following makes: ABB (ZH413), without trim cover
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | For disconnec-tors | SU | EDF*1 | WR*2 | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 00 | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 2 | 500 | 1 x 4 | 48 | | ■ | 225 | MBT250 | 2CPX041788R9999 | | MT250 | 2CPX041331R9999 | |
| | | 3 | 750 | 1 x 6 | 72 | | ■ | 225 | MBT350 | 2CPX041789R9999 | | MT350 | 2CPX041332R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 40 mm for size 00 disconnector adapter, M(B)T...50(B)



ZH413

| Article | Application | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Size 00 fuse switch disconnector<br>With adapter for 40 mm busbar system,<br>Rated current ($I_n$) max. 160 A,<br>without trim cover,<br>with M8 connection screws | M(B)T250 - M(B)T350 | 1 | ZH413 | 2CPX062949R9999 | |



ZH427

**Trim covers**

For fuse switch disconnectors, colour similar to RAL 7035, to comply with the touch protection IPXXC

| | | | | | |
|---|---|---|---|---|---|
| Single trim cover | M(B)T250 - M(B)T350 | 1 | ZH425 | 2CPX062952R9999 | |
| Double trim cover | 2 x M(B)T250 * | 1 | ZH426 | 2CPX062953R9999 | |
| Triple trim cover | 2 x M(B)T350 * | 1 | ZH427 | 2CPX062954R9999 | |



ZH430

**Trim cover, closed**

Instead of fuse switch disconnector, Colour similar to RAL 7035 to comply with the touch protection IPXXC

| | | | | | |
|---|---|---|---|---|---|
| Single trim cover | M(B)T250 - M(B)T350 | 1 | ZH428 | 2CPX062955R9999 | |
| Double trim cover | M(B)T250 - M(B)T350 | 1 | ZH429 | 2CPX062956R9999 | |
| Triple trim cover | M(B)T350 | 1 | ZH430 | 2CPX062957R9999 | |

*Number of pieces per fully equipped module



- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Height | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | GU | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 2 | 431 | 1 | ZX2002 | 2CPX042201R9999 | | ZXM2002 | 2CPX042301R9999 | |
| | | 3 | 681 | 1 | ZX2003 | 2CPX042202R9999 | | ZXM2003 | 2CPX042302R9999 | |
| | | 4 | 931 | 1 | ZX2004 | 2CPX042203R9999 | | ZXM2004 | 2CPX042303R9999 | |
| | | 5 | 1181 | 1 | ZX2005 | 2CPX042204R9999 | | ZXM2005 | 2CPX042304R9999 | |
| | | 6 | 1431 | 1 | ZX2006 | 2CPX042792R9999 | | ZXM2006 | 2CPX042814R9999 | |
| 12 x 10 | 360 | 2 | 431 | 1 | ZX2008 | 2CPX042206R9999 | | ZXM2008 | 2CPX042306R9999 | |
| | | 3 | 681 | 1 | ZX2009 | 2CPX042207R9999 | | ZXM2009 | 2CPX042307R9999 | |
| | | 4 | 931 | 1 | ZX2010 | 2CPX042208R9999 | | ZXM2010 | 2CPX042308R9999 | |
| | | 5 | 1181 | 1 | ZX2011 | 2CPX042209R9999 | | ZXM2011 | 2CPX042309R9999 | |
| | | 6 | 1431 | 1 | ZX2012 | 2CPX042793R9999 | | ZXM2012 | 2CPX042815R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 40 mm for size 1 disconnector adapter, M(B)T...51(B)



MT351B

- Equipped with size 1 fuse switch disconnector 250 A, type ZH433, with trim covers
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- With connection terminals 70 mm² (ZK83)
- Rated current ($I_n$) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 45 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | With disconnector | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 1 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 2 | 500 | 2 | 48 | | ■ | 225 | - | - | - | MT251B | 2CPX041333R9999 | |
| | | 3 | 750 | 3 | 72 | | ■ | 225 | - | - | - | MT351B | 2CPX041334R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT351

- Unequipped module, prepared for size 01 fuse switch disconnector 250 A, of the following makes: ABB (ZH433), without trim cover
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- Rated current ($I_n$) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | For disconnectors | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Size 1 | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 2 | 500 | 2 | 48 | | ■ | 225 | MBT251 | 2CPX041790R9999 | | MT251 | 2CPX041335R9999 | |
| | | 3 | 750 | 3 | 72 | | ■ | 225 | MBT351 | 2CPX041791R9999 | | MT351 | 2CPX041336R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 40 mm for size 1 disconnector adapter, M(B)T...51(B)



ZH433

| Article | Application | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Size 1 fuse switch disconnector<br>with adapter for 40 mm busbar system,<br>Rated current ($I_n$) max. 250 A,<br>without trim cover,<br>with M10 connection screws | M(B)T251 - M(B)T351 | 1 | ZH433 | 2CPX062960R9999 | |



ZH438

| | | | | | |
|---|---|---|---|---|---|
| Trim cover<br>Single cover for fuse switch disconnectors,<br>Colour similar to RAL 7035<br>to comply with the touch protection IPXXC | 2 x M(B)T251 *<br>3 x M(B)T351 * | 1 | ZH438 | 2CPX062961R9999 | |



ZH440

| | | | | | |
|---|---|---|---|---|---|
| Trim cover, closed<br>Single cover instead of fuse switch disconnector,<br>Colour similar to RAL 7035,<br>to comply with the touch protection IPXXC | M(B)T251 - M(B)T351 | 1 | ZH440 | 2CPX062963R9999 | |

*Number of pieces per fully equipped module

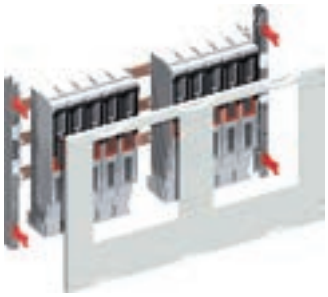


- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Height | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | GU | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 2 | 431 | 1 | ZX2002 | 2CPX042201R9999 | | ZXM2002 | 2CPX042301R9999 | |
| | | 3 | 681 | 1 | ZX2003 | 2CPX042202R9999 | | ZXM2003 | 2CPX042302R9999 | |
| | | 4 | 931 | 1 | ZX2004 | 2CPX042203R9999 | | ZXM2004 | 2CPX042303R9999 | |
| | | 5 | 1181 | 1 | ZX2005 | 2CPX042204R9999 | | ZXM2005 | 2CPX042304R9999 | |
| | | 6 | 1431 | 1 | ZX2006 | 2CPX042792R9999 | | ZXM2006 | 2CPX042814R9999 | |
| 12 x 10 | 360 | 2 | 431 | 1 | ZX2008 | 2CPX042206R9999 | | ZXM2008 | 2CPX042306R9999 | |
| | | 3 | 681 | 1 | ZX2009 | 2CPX042207R9999 | | ZXM2009 | 2CPX042307R9999 | |
| | | 4 | 931 | 1 | ZX2010 | 2CPX042208R9999 | | ZXM2010 | 2CPX042308R9999 | |
| | | 5 | 1181 | 1 | ZX2011 | 2CPX042209R9999 | | ZXM2011 | 2CPX042309R9999 | |
| | | 6 | 1431 | 1 | ZX2012 | 2CPX042793R9999 | | ZXM2012 | 2CPX042815R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 100 mm size 00 fuse switch disconnectors, M(B)L...52(B)



ML352B

- Equipped with size 00 fuse switch disconnectors 160 A (ZE59)
- Busbar centre spacing 100 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX520
- Rated current ($I_n$) max. 850 A

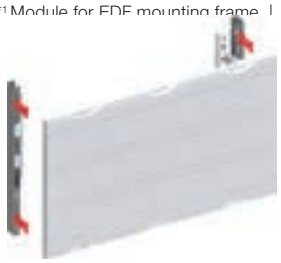
**Important:**

1. When assembling fuse switch disconnectors behind the lock system consider the cabinet depth
   Leading edge device to the cover 29 mm
2. When using a centre support rail or a horizontal cross member for direct connections, the possibilities to use a connection terminal are restricted (plan connection space, empty module)

- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| | | Width | | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Configuration | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 3 x size 00 | 36 | ■ | ■ | 215 | - | - | - | ML152B | 2CPX041340R9999 | |
| | | 2 | 500 | 6 x size 00 | 72 | ■ | ■ | 215 | - | - | - | ML252B | 2CPX041341R9999 | |
| | | 3 | 750 | 10 x size 00 | 108 | | ■ | 275 | - | - | - | ML352B | 2CPX041342R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ML352

- Unequipped module, prepared for size 00 fuse switch disconnector 160 A, of the following makes: ABB (ZE59)
- Busbar centre spacing 100 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX520
- Cover without cut-out
- Rated current ($I_n$) max. 850 A
- Devices, see below
- **Important:** see remarks on top
- Not suitable for fire protection enclosures

| Height | | Width | | Usable width | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 150 | 36 | ■ | ■ | 215 | MBL152 | 2CPX041795R9999 | | ML152 | 2CPX041343R9999 | |
| | | 2 | 500 | 300 | 72 | ■ | ■ | 215 | MBL252 | 2CPX041796R9999 | | ML252 | 2CPX041344R9999 | |
| | | 3 | 750 | 500 | 108 | | ■ | 275 | MBL352 | 2CPX041797R9999 | | ML352 | 2CPX041345R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



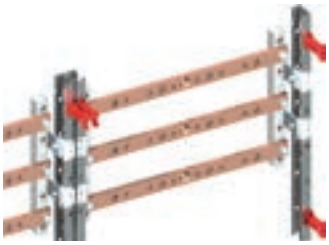


ZE59

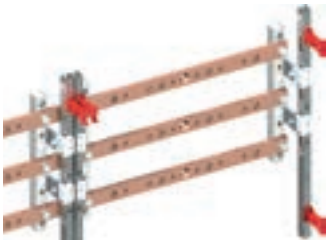
| Article | Application | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Fuse switch disconnectors<br>Busbar centre spacing 100 mm<br>Size 00, 160 A, 50 mm width | M(B)L152 - M(B)L352 | 1 | ZE59 | 2CPX061044R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 100 mm for size 00 fuse switch disconnectors, M(B)L...52(B)



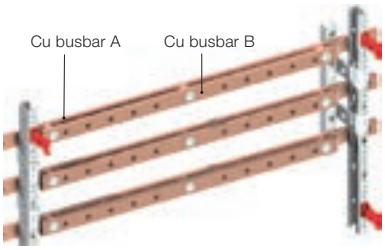
WR mounting frame with busbars in the module



EDF mounting frame with Busbar connection

- Busbars for single cabinets
- With the WR mounting frame the busbars cannot be connected through from one module to the next
- With the EDF mounting frame (see information on the PW) defined combinations are possible within the cabinet
- Size 00 fuse switch disconnectors are directly mounted to Cu busbars prepared with captive nuts and to this end the busbar holders are fixed to the front position of the bracket
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 30 x 10 | 630 | 1 | 184 | 1 | ZX1120 | 2CPX041978R9999 | | ZXM1120 | 2CPX041588R9999 | |
| | | 2 | 434 | 1 | ZX1121 | 2CPX041979R9999 | | ZXM1121 | 2CPX041589R9999 | |
| | | 3 | 684 | 1 | ZX1122 | 2CPX041980R9999 | | ZXM1122 | 2CPX041590R9999 | |
| | | 4 (2PW+2PW) | 934 | 1 | ZX1123 | 2CPX041981R9999 | | ZXM1123 | 2CPX041591R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX1124 | 2CPX041982R9999 | | ZXM1124 | 2CPX041592R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX1125 | 2CPX042809R9999 | | ZXM1125 | 2CPX042831R9999 | |
| 40 x 10 | 850 | 1 | 184 | 1 | ZX1126 | 2CPX041984R9999 | | ZXM1126 | 2CPX041594R9999 | |
| | | 2 | 434 | 1 | ZX1127 | 2CPX041985R9999 | | ZXM1127 | 2CPX041595R9999 | |
| | | 3 | 684 | 1 | ZX1128 | 2CPX041986R9999 | | ZXM1128 | 2CPX041596R9999 | |
| | | 4 (2PW+2PW) | 935 | 1 | ZX1129 | 2CPX041987R9999 | | ZXM1129 | 2CPX041597R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX1130 | 2CPX041988R9999 | | ZXM1130 | 2CPX041598R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX1131 | 2CPX042810R9999 | | ZXM1131 | 2CPX042832R9999 | |




WR mounting frame with busbar connection

- Busbars for single cabinets
- With the WR mounting frame (see information on the PW) defined combinations are possible with the continuous "A" busbars within the cabinet
- Per module, size 00 fuse switch disconnectors are mounted to Cu busbars "B" prepared with captive nuts and to this end the busbar holders are fixed to the front position of the bracket
- Three Cu busbars "A" and "B" are required per module

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Cu busbar A, continuous busbar** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 184 | 1 | ZX2025 | 2CPX042220R9999 | | ZXM2025 | 2CPX042320R9999 | |
| | | 2 | 434 | 1 | ZX2026 | 2CPX042221R9999 | | ZXM2026 | 2CPX042321R9999 | |
| | | 3 | 684 | 1 | ZX2027 | 2CPX042222R9999 | | ZXM2027 | 2CPX042322R9999 | |
| | | 4 (2PW+2PW) | 934 | 1 | ZX2028 | 2CPX042223R9999 | | ZXM2028 | 2CPX042323R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX2029 | 2CPX042224R9999 | | ZXM2029 | 2CPX042324R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX2030 | 2CPX042796R9999 | | ZXM2030 | 2CPX042818R9999 | |
| 40 x 10 | 850 | 1 | 184 | 1 | ZX2031 | 2CPX042225R9999 | | ZXM2031 | 2CPX042325R9999 | |
| | | 2 | 434 | 1 | ZX2032 | 2CPX042226R9999 | | ZXM2032 | 2CPX042326R9999 | |
| | | 3 | 684 | 1 | ZX2033 | 2CPX042227R9999 | | ZXM2033 | 2CPX042327R9999 | |
| | | 4 (2PW+2PW) | 934 | 1 | ZX2034 | 2CPX042228R9999 | | ZXM2034 | 2CPX042328R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX2035 | 2CPX042229R9999 | | ZXM2035 | 2CPX042329R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX2036 | 2CPX042797R9999 | | ZXM2036 | 2CPX042819R9999 | |
| **Cu busbar B for mounting the 00 fuse switch disconnectors** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 150 | 1 | ZX1170 | 2CPX042342R9999 | | ZXM1170 | 2CPX042348R9999 | |
| | | 2 | 400 | 1 | ZX1171 | 2CPX042343R9999 | | ZXM1171 | 2CPX042349R9999 | |
| | | 3 | 650 | 1 | ZX1172 | 2CPX042344R9999 | | ZXM1172 | 2CPX042350R9999 | |
| 40 x 10 | 850 | 1 | 150 | 1 | ZX1176 | 2CPX042345R9999 | | ZXM1176 | 2CPX042351R9999 | |
| | | 2 | 400 | 1 | ZX1177 | 2CPX042346R9999 | | ZXM1177 | 2CPX042352R9999 | |
| | | 3 | 650 | 1 | ZX1178 | 2CPX042347R9999 | | ZXM1178 | 2CPX042353R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...21-300(B)



ML300B

- **Equipped with:**
  Size 00 fuse switch disconnectors up to 160 A (ZE55),
  Size 1 fuse switch disconnectors up to 250 A (ZE56),
  Size 2 fuse switch disconnectors up to 400 A (ZE57),
  Size 3 fuse switch disconnectors up to 630 A (ZE58)
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars
- With busbar holder (ZX522)
- Rated current ($I_n$) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- Leading edge device to the cover 77 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Configura-tion | SU | EDF*1 | WR*2 | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 5 | 750 | 1 | 250 | 3 x size 00 | 60 | | ■ | 275 | - | - | - | ML100B | 2CPX041346R9999 | |
| | | 2 | 500 | 6 x size 00 | 120 | | ■ | 275 | - | - | - | ML200B | 2CPX041347R9999 | |
| | | 3 | 750 | 10 x size 00 | 180 | | ■ | 275 | - | - | - | ML300B | 2CPX041348R9999 | |
| 5 | 750 | 2 | 500 | 4 x size 1 | 120 | | ■ | 275 | - | - | - | ML21B | 2CPX041352R9999 | |
| | | 3 | 750 | 6 x size 1 | 180 | | ■ | 275 | - | - | - | ML31B | 2CPX041353R9999 | |
| 5 | 750 | 2 | 500 | 4 x size 2 | 120 | | ■ | 275 | - | - | - | ML22B | 2CPX041354R9999 | |
| | | 3 | 750 | 6 x size 2 | 180 | | ■ | 275 | - | - | - | ML32B | 2CPX041355R9999 | |
| 5 | 750 | 2 | 500 | 4 x 3 | 120 | | ■ | 275 | - | - | - | ML23B | 2CPX041356R9999 | |
| | | 3 | 750 | 6 x 3 | 180 | | ■ | 275 | - | - | - | ML33B | 2CPX041357R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ML300

- Unequipped for size 00 to size 3 fuse switch disconnectors 160 A to 630 A for the following makes: ABB (ZE55 - ZE58)
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars
- With busbar holder (ZX522)
- Cover without cut-out
- Rated current ($I_n$) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Usable width | SU | EDF*1 | WR*2 | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 5 | 750 | 1 | 250 | 150 | 60 | | ■ | 275 | MBL100 | 2CPX041798R9999 | | ML100 | 2CPX041349R9999 | |
| | | 2 | 500 | 400 | 120 | | ■ | 275 | MBL200 | 2CPX041799R9999 | | ML200 | 2CPX041350R9999 | |
| | | 3 | 750 | 600 | 180 | | ■ | 275 | MBL300 | 2CPX041800R9999 | | ML300 | 2CPX041351R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...21-300(B)



ZE56

| Article | Pieces | Type | Ord. no. | Price |
|---|---|---|---|---|
| **Fuse switch disconnectors** | | | | |
| Busbar centre spacing 185 mm | | | | |
| Size 00, 160 A, 50 mm width | 1 | ZE55 | 2CPX061040R9999 | |
| Size 1, 250 A, 100 mm width | 1 | ZE56 | 2CPX061041R9999 | |
| Size 2, 400 A, 100 mm width | 1 | ZE57 | 2CPX061042R9999 | |
| Size 3, 630 A, 100 mm width | 1 | ZE58 | 2CPX061043R9999 | |



ZX1128

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- With captive nuts to connect fuse switch disconnectors
- From three panels on the captive nuts define the module sequence (see information on PW)
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 30 x 10 | 630 | 1 | 196 | 1 | ZX1120 | 2CPX041978R9999 | | ZXM1120 | 2CPX041588R9999 | |
| | | 2 | 434 | 1 | ZX1121 | 2CPX041979R9999 | | ZXM1121 | 2CPX041589R9999 | |
| | | 3 | 684 | 1 | ZX1122 | 2CPX041980R9999 | | ZXM1122 | 2CPX041590R9999 | |
| | | 4 (2PW+2PW) | 934 | 1 | ZX1123 | 2CPX041981R9999 | | ZXM1123 | 2CPX041591R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX1124 | 2CPX041982R9999 | | ZXM1124 | 2CPX041592R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX1125 | 2CPX042809R9999 | | ZXM1125 | 2CPX042831R9999 | |
| 40 x 10 | 850 | 1 | 184 | 1 | ZX1126 | 2CPX041984R9999 | | ZXM1126 | 2CPX041594R9999 | |
| | | 2 | 446 | 1 | ZX1127 | 2CPX041985R9999 | | ZXM1127 | 2CPX041595R9999 | |
| | | 3 | 684 | 1 | ZX1128 | 2CPX041986R9999 | | ZXM1128 | 2CPX041596R9999 | |
| | | 4 (2PW+2PW) | 935 | 1 | ZX1129 | 2CPX041987R9999 | | ZXM1129 | 2CPX041597R9999 | |
| | | 5 (3PW+2PW) | 1184 | 1 | ZX1130 | 2CPX041988R9999 | | ZXM1130 | 2CPX041598R9999 | |
| | | 6 (3PW+3PW) | 1434 | 1 | ZX1131 | 2CPX042810R9999 | | ZXM1131 | 2CPX042832R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...5



ML35

- Unequipped for switch disconnector fuse sizes 00 up to 3, 160 A up to 630 A
- For the make: ABB SlimLine XR and Jean Müller Sasil
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars, see below
- With busbar holder (ZX523)
- Cover without cut-out
- Rated current ($I_n$) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- Leading edge device to the cover 138 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Usable width | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 5 | 750 | 2 | 500 | 400 | 120 | | ■ | 625 | MBL25 | 2CPX041801R9999 | | ML25 | 2CPX041368R9999 | |
| | | 3 | 750 | 600 | 180 | | ■ | 625 | MBL35 | 2CPX041802R9999 | | ML35 | 2CPX041369R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

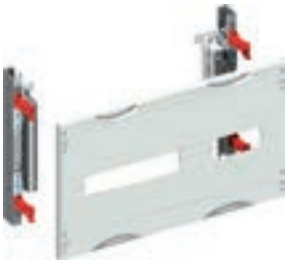


ZX1033

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- With locking pins to fix them to the busbars
- 3 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 40 x 10 | 850 | 2 | 496 | 1 | ZX1032 | 2CPX041901R9999 | | ZXM1032 | 2CPX041511R9999 | |
| | | 3 | 746 | 1 | ZX1033 | 2CPX041902R9999 | | ZXM1033 | 2CPX041512R9999 | |
| | | 4 | 996 | 1 | ZX1034 | 2CPX041903R9999 | | ZXM1034 | 2CPX041513R9999 | |
| | | 5 | 1246 | 1 | ZX1035 | 2CPX041904R9999 | | ZXM1035 | 2CPX041514R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbar system modules 40 mm for S700 and S750, M(B)H



MH250

- Unequipped for selective main circuit breakers
- For ABB S700, 1 up to 4-pole (width per pole 35 mm)
- Busbar centre spacing 40 mm
- For 4-pole horizontal busbars, see below
- With busbar holder type ZB5
- 3 panels and more: additional centre support
- Covers with cut-out
- The remaining slot must be closed with covers
- The mounting frame must be ordered separately
- The MBH350 and MH350 modules are not suitable for fire protection enclosures

| Height | | Width | | Usable width | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 105 | 24 | ■ | ■ | 200 | MBH150 | 2CPX041792R9999 | | MH150 | 2CPX041337R9999 | |
| | | 2 | 500 | 210/105 | 48 | ■ | ■ | 200 | MBH250 | 2CPX041793R9999 | | MH250 | 2CPX041338R9999 | |
| | | 3 | 750 | 315/210 | 72 | ■ | ■ | 200 | MBH350 | 2CPX041794R9999 | | MH350 | 2CPX041339R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



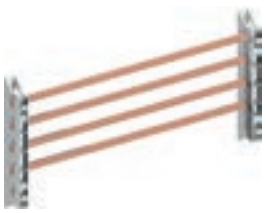
MH251

- Unequipped for selective main circuit breakers
- For ABB S750, 1 or 3-pole (width per pole 27 mm)
- 1 panel wide fully equipped modules are fed directly by the selective main circuit breaker in case of a maximum connection cross-section of 35 mm² / max. 100 A
- Busbar centre spacing 40 mm
- For 4-pole horizontal busbars, see below
- With busbar holder type ZB5
- 3 panels and more: additional centre support
- Covers with cut-out
- The remaining slot must be closed with covers
- The mounting frame must be ordered separately
- The MBH351 and MH350 modules are not suitable for fire protection enclosures

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 1 | 250 | 161 | 24 | ■ | ■ | 200 | MBH151 | 2CPX042031R9999 | | MH151 | 2CPX042026R9999 | |
| | | 2 | 500 | 161/161 | 48 | ■ | ■ | 200 | MBH251 | 2CPX042032R9999 | | MH251 | 2CPX042027R9999 | |
| | | 3 | 750 | 322/242 | 72 | ■ | ■ | 200 | MBH351 | 2CPX042033R9999 | | MH351 | 2CPX042028R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame





ZX2041

- Busbars within the module
- Not more than 5 Cu busbars are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 12 x 5 | 250 | 1 | 195 | 1 | ZX2040 | 2CPX042533R9999 | | ZXM2040 | 2CPX042453R9999 | |
| | | 2 | 445 | 1 | ZX2041 | 2CPX042534R9999 | | ZXM2041 | 2CPX042454R9999 | |
| | | 3 | 695 | 1 | ZX2042 | 2CPX042535R9999 | | ZXM2042 | 2CPX042455R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## MCCB Tmax equipped with MA...ALSB



**MA250ALSB**

- Equipped with MCCBs from ABB, Tmax T1 to T5, 3-pole
- Fixed with lever operation
- With thermomagnetic tripping device
- Covers with cut-out
- Assembly to mounting cross member
- **Note:** When directly using a center support rail or a horizontal cross member, the cable connection can be realized with the help of terminals (FC-CUAL). This and further accessories must be ordered from ABB Stotz.
- The mounting frame must be ordered separately
- The MA100ALSB module is not suitable for fire protection enclosures

| Height | | Width | | $I_n$ | Device | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | one | Type | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 100 | T1B160R100 | 24 | ■ | ■ | 120 | - | - | - | MA100ALSB | 2CPX041380R9999 | |
| | | | | 160 | T1N160R160 | 24 | ■ | ■ | 200 | - | - | - | MA160ALSB | 2CPX041381R9999 | |
| | | | | 200 | T3N250R200 | 24 | ■ | ■ | 200 | - | - | - | MA200ALSB | 2CPX041382R9999 | |
| | | | | 250 | T3N250R250 | 24 | ■ | ■ | 200 | - | - | - | MA250ALSB | 2CPX041383R9999 | |
| 3 | 450 | 2 | 500 | 400 | T5N400R400 | 72 | ■ | ■ | 215 | - | - | - | MA400ALSB | 2CPX041384R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



**MA630ALSB**

- Equipped with MCCBs from ABB, Tmax T5 and T6, 3-pole
- Fixed with lever operation
- With electronic tripping device PR221 DS-LI/I
- Covers with cut-out
- Assembly to mounting cross member
- **Note:** When directly using a center support rail or a horizontal cross member, the cable connection can be realized with the help of terminals (FC-CUAL). This and further accessories must be ordered from ABB Stotz.
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 450 | 2 | 500 | 630 | T5N630R630 | 72 | | ■ | 275 | - | - | - | MA630ALSB | 2CPX041385R9999 | |
| 4 | 600 | 2 | 500 | 800 | T6N800R800 | 96 | | ■ | 325 | - | - | - | MA800ALSB | 2CPX041386R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## MCCB Tmax unequipped, M(B)A...T



MA290T

- Unequipped module, ABB, fixed,
  Tmax T1 / XT1, 3-/4-pole, (76.2 mm/101.2 mm)
  Tmax T2, 3-/4-pole, (90 mm/120 mm)
  Tmax T3-/XT3, 3-/4-pole, (105 mm/140 mm)
- Cover with cut-out, the remaining slot must be closed with covers
- With mounting cross member and M4 sliding nuts
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA190T and MA190T modules

| Height | | Width | | Device | Cut-out Width | Usable width | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Type | mm | mm | SU | EDF *1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | T1-XT3 | 216 | 199 | 24 | ■ | ■ | 120*3 | MBA190T | 2CPX041643R9999 | | MA190T | 2CPX041120R9999 | |
| | | 2 | 500 | T1-XT3 | 421 | 449 | 48 | ■ | ■ | 215 | MBA290T | 2CPX041644R9999 | | MA290T | 2CPX041417R9999 | |
| | | 3 | 750 | T1-XT3 | 687 | 699 | 72 | | ■ | 275 | MBA390T | 2CPX041645R9999 | | MA390T | 2CPX041418R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame | *3 In compact distribution board only 1 x Tmax T1 lever operated and max. $I_n$ up to 100 A

# Enclosures
## Modular distribution panel system CombiLine N
## MCCB Tmax equipped with M(B)A...T



MA191T

- Unequipped module, ABB, fixed,
  Tmax XT2, 3- / 4-pole, (90 mm / 120 mm)
  Tmax XT4, 3- / 4-pole, (105 mm / 140 mm), (max. 250 A)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures excluding Module MBA191T and MA191T

| Height | | Width | | Device | | | | | From cabinet depth | Flatpack unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Type | Pole | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Pri-ce | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | XT2 | 3pole | 24 | ■ | ■ | 200 | MBA191T | - | - | MA191T | | |
| 2 | 300 | 1 | 250 | XT2 | 4pole | 24 | ■ | ■ | 200 | MBA194T | - | - | - | | |
| 3 | 450 | 1 | 250 | XT4 | 3pole | 36 | ■ | ■ | 200 | MBA193T | - | - | MA191T | | |
| 3 | 450 | 1 | 250 | XT4 | 4pole | 36 | ■ | ■ | 200 | MBA195T | - | - | - | | |



MA291T

- Unequipped module, ABB, fixed,
  Tmax XT2, 3- / 4-pole, (90 mm / 120 mm)
  Tmax XT4, 3- / 4-pole, (105 mm / 140 mm), (max. 250 A)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 2 | 500 | XT2 | 3/4pole | 48 | ■ | ■ | 215 | MBA291T | - | - | MA291T | | |
| 2 | 300 | 3 | 750 | XT2 | 3/4pole | 72 | | ■ | 260 | MBA391T | - | - | MA391T | | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## MCCB Tmax unequipped, M(B)A...T



MBA195T

- Unequipped module, ABB, fixed,
  Tmax XT2, 4-pole + 4-pole + RC Sel, (120 mm)
  Tmax XT4, 4-pole + 4-pole + RC Sel, (140 mm)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Device | | | | | From cabinet depth | Flatpack unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Type | Pole | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | XT2 | 4pole RC Sel | 36 | ■ | ■ | 200 | MBA195T | | - | | | |
| 3 | 450 | 1 | 250 | XT4 | 4pole RC Sel | 36 | ■ | ■ | 200 | MBA197T | | - | | | |



MA292T

- Unequipped module, ABB, fixed
  Tmax T4, 3-/4-pole, (105 mm / 140 mm)
  Tmax T5, 3-/4-pole, (139.5 mm/186 mm)
- Covers with cut-out
- Mounting cross member including threaded fastening holes
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 450 | 1 | 250 | T4 | 3-pole | 36 | ■ | ■ | 215 | MBA192T | 2CPX041646R9999 | | MA192T | 2CPX041121R9999 | |
| | | 2 | 500 | T4 | 4-pole | 72 | ■ | ■ | 215 | MBA292T | 2CPX041647R9999 | | MA292T | 2CPX041122R9999 | |
| | | 2 | 500 | T5 | 3-/4-pole | 72 | ■ | ■ | 215 | MBA292T | 2CPX041647R9999 | | MA292T | 2CPX041122R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Switch disconnector OT, equipped, MA...ALAB



MA160ALAB

- Equipped with switch disconnectors make ABB OT, 3-pole, for fuse links
- Covers with cut-out
- Assembly to DIN rails 35 x 15 mm
- The mounting frame must be ordered separately

| Height | | Width | | $I_n$ | Device | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | one | Type | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 160 | OT160M3 | 24 | ■ | ■ | 200 | - | - | - | MA160ALAB | 2CPX041370R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MA630ALAB

- Equipped with switch disconnectors make ABB OT, 3-pole, for fuse links
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MA200ALAB and MA250ALAB modules

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 1 | 250 | 200 | OT200E03P | 24 | ■ | ■ | 200 | - | - | - | MA200ALAB | 2CPX041371R9999 | |
| | | | | 250 | OT250E03P | 24 | ■ | ■ | 200 | - | - | - | MA250ALAB | 2CPX041372R9999 | |
| 3 | 450 | 2 | 500 | 400 | OT400E03P | 72 | ■ | ■ | 215 | - | - | - | MA400ALAB | 2CPX041373R9999 | |
| | | | | 630 | OT630E03P | 72 | | ■ | 275 | - | - | - | MA630ALAB | 2CPX041374R9999 | |
| 4 | 600 | 2 | 500 | 800 | OT800E03P | 72 | | ■ | 325 | - | - | - | MA800ALAB | 2CPX041375R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Switch disconnector OT / S750DR unequipped, M(B)A...ALA



MA160ALA

- Unequipped for switch disconnector make ABB OT160M3 or selective main circuit breaker make ABB S750DR
- 3- or 4-pole
- Covers without cut-out
- Assembly to DIN rails 35 x 15 mm
- The mounting frame must be ordered separately

| Height | | Width | | Usable Width | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 216 | 24 | ■ | ■ | 200 | MBA160ALA | 2CPX041803R9999 | | MA160ALA | 2CPX041376R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MA250ALA

- Unequipped for switch disconnectors, makes ABB OT200E...P – OT630E...P
- 3- or 4-pole
- Covers without cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA250ALA and MA250ALA modules

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 1 | 250 | - | 24 | ■ | ■ | 200 | MBA250ALA | 2CPX041804R9999 | | MA250ALA | 2CPX041377R9999 | |
| 3 | 450 | 2 | 500 | - | 72 | | ■ | 275 | MBA630ALA | 2CPX041805R9999 | | MA630ALA | 2CPX041378R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N, Universal switch modules, M(B)A...A / Cable connections MB(V)...



MA630A



MA800A

- Unequipped, universal use for various devices
- Cover without cut-out
- With deep-mounting brackets for stepless adjustment.
- Fastening of the devices with captive nuts M4, M5 and M6
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA250A and MA250A modules

| Height | | Width | | Usable width | max. Usable depth to the Cover | SU | EDF*1 | WR*2 | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | mm | mm | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 2 | 300 | 1 | 250 | 170 | 122 | 24 | ■ | ■ | 200 | MBA250A | 2CPX041807R9999 | | MA250A | 2CPX041387R9999 | |
| 3 | 450 | 2 | 500 | 420 | 122 | 72 | ■ | ■ | 215 | MBA630A | 2CPX041808R9999 | | MA630A | 2CPX041388R9999 | |
| 4 | 600 | 2 | 500 | 420 | 147 | 96 | | ■ | 275 | MBA800A | 2CPX041806R9999 | | MA800A | 2CPX041389R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MV281

- For the cable connection between module and switchgear cabinet door
- Covers with cut-out for the cable connection
- With DIN rail and connection sleeve
- With accessories to attach the sleeve to the module and to the switchgear cabinet door
- Consider the door hinge position
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Sleeve diameter | SU | EDF*1 | WR*2 | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | ∅ | | | | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | M20 | 12 | ■ | ■ | 225 | MBV180 | 2CPX041815R9999 | | MV180 | 2CPX041396R9999 | |
| | | 1 | 250 | M32 | 12 | ■ | ■ | 225 | MBV181 | 2CPX041816R9999 | | MV181 | 2CPX041397R9999 | |
| | | 1 | 250 | M40 | 12 | ■ | ■ | 225 | MBV182 | 2CPX041817R9999 | | MV182 | 2CPX041398R9999 | |
| | | 2 | 500 | M32 | 12 | ■ | ■ | 225 | MBV281 | 2CPX041818R9999 | | MV281 | 2CPX041399R9999 | |
| | | 2 | 500 | M40 | 12 | ■ | ■ | 225 | MBV282 | 2CPX041819R9999 | | MV282 | 2CPX041400R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures

## Modular distribution panel system CombiLine N, Measuring instruments / Switchgear cabinet lighting modules, M(B)U...



MU257

- Unequipped, prepared for four 96 x 96 mm instruments
- Horizontal instrument arrangement
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately

| Height | | Width | | Instruments | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Pcs. | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 2 | 500 | 4 | 24 | ■ | ■ | 225 | MBU257 | 2CPX041809R9999 | | MU257 | 2CPX041390R9999 | |
| | | 3 | 750 | 4 | 36 | ■ | ■ | 225 | MBU357 | 2CPX041810R9999 | | MU357 | 2CPX041391R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MU158



MU156

- Unequipped, prepared for 1 and/or 4 instruments (96 x 96 mm)
- For heights of 450 mm plus additional DIN rail for DIN rail mounting devices, 12 SU
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 150 | 1 | 250 | 1 | 12 | ■ | ■ | 225 | MBU156 | 2CPX042043R9999 | | MU156 | 2CPX042042R9999 | |
| 2 | 300 | 1 | 250 | 4 | 24 | ■ | ■ | 225 | MBU157 | 2CPX041811R9999 | | MU157 | 2CPX041392R9999 | |
| 3 | 450 | 1 | 250 | 4 | 36 | ■ | ■ | 225 | MBU158 | 2CPX041812R9999 | | MU158 | 2CPX041393R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MU270

- Equipped with switchgear cabinet lighting
- Cover with left-sided cut-out for DIN rail mounting devices, 7 SU for M(B)U270 and 8 SU for M(B)U370
- The mounting frame must be ordered separately

| Height | | Width | | Lighting | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | W | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 2 | 500 | 8 | 24 | ■ | ■ | 200 | MBU270 | 2CPX041813R9999 | | MU270 | 2CPX041394R9999 | |
| | | 3 | 750 | 13 | 36 | ■ | ■ | 200 | MBU370 | 2CPX041814R9999 | | MU370 | 2CPX041395R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

# Enclosures
## Modular distribution panel system CombiLine N
## Cable fastening rails, M(B)F...83+84



MF283

- With cable fastening rail to relieve the cable strain
- Including a cable fastening rail for cable clamps, see below
- Covers without cut-out
- For cabinet depths up to 275 mm
- Cable fastening rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 87 up to 142 mm
- The mounting frame must be ordered separately

| Height | | Width | | | | | From cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 200 | MBF183 | 2CPX041822R9999 | | MF183 | 2CPX041403R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 200 | MBF283 | 2CPX041823R9999 | | MF283 | 2CPX041404R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 200 | MBF383 | 2CPX041824R9999 | | MF383 | 2CPX041405R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MF284

- With cable fastening rail to relieve the cable strain
- Including a cable fastening rail for cable clamps, see below
- Covers without cut-out
- For cabinet depths up to 425 mm
- Cable fastening rail steplessly depth-adjustable using deep-mounting bracket ZW79P2
- Usable depth from 122 up to 177 mm
- The mounting frame must be ordered separately

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 150 | 1 | 250 | 12 | ■ | ■ | 325 | MBF184 | 2CPX041846R9999 | | MF184 | 2CPX041466R9999 | |
| | | 2 | 500 | 24 | ■ | ■ | 325 | MBF284 | 2CPX041847R9999 | | MF284 | 2CPX041467R9999 | |
| | | 3 | 750 | 36 | ■ | ■ | 325 | MBF384 | 2CPX041848R9999 | | MF384 | 2CPX041468R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZK143

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Cable clamp** | | | | |
| For cable fastening rails | | | | |
| 22 to 28 mm | 1 | ZK143 | 2CPX060005R9999 | |
| | 10 | ZK143P10 | 2CPX062728R9999 | |
| 40 - 46 mm | 1 | ZK144 | 2CPX060006R9999 | |
| | 10 | ZK144P10 | 2CPX062729R9999 | |
| from 64 to 70 mm | 1 | ZK145 | 2CPX060007R9999 | |
| | 10 | ZK145P10 | 2CPX062730R9999 | |



ZK1431P100

| Backing plates for cable clamps | | | | |
|---|---|---|---|---|
| For ZK143 | 100 | ZK1431P100 | 2CPX060251R9999 | |
| For ZK144 | 100 | ZK1441P100 | 2CPX060252R9999 | |
| For ZK145 | 50 | ZK1451P50 | 2CPX060253R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Meter with 3-point-fastening and EDS meter



MZ160



MZ161

- For meters with 3-point-fastening to meter plate
- Only suitable for intermediate metering
- With top parts, top and bottom
- Partitions may be necessary, one level ZX70, for two levels ZX72, see below
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| Height | | Width | | Meter | | | | Minimum cabinet depth | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | mm | PW | mm | Pcs. | SU | EDF*1 | WR*2 | mm | Type | Ord. no. | Price | Type | Ord. no. | Price |
| 3 | 450 | 1 | 250 | 1 | 36 | | ■ | 225 | MBZ160 | 2CPX041820R9999 | | MZ160 | 2CPX041401R9999 | |
| 5 | 750 | 1 | 250 | 2 | 60 | | ■ | 225 | MBZ161 | 2CPX041821R9999 | | MZ161 | 2CPX041402R9999 | |

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MZ162



MZ163

- For EDS meter
- Only suitable for intermediate metering
- For the insertion of the EDS assembly (integrated snapping and contact unit), see below
- With top parts, top and bottom
- Partitions ZX69 may be necessary, see below
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 300 | 1 | 250 | 1 | 24 | | ■ | 225 | MBZ162 | 2CPX042034R9999 | | MZ162 | 2CPX042029R9999 | |
| 2 | 300 | 1 | 250 | 2 | 24 | | ■ | 225 | MBZ163 | 2CPX042035R9999 | | MZ163 | 2CPX042030R9999 | |

*1 Module for EDF mounting frame *2 Module for WR mounting frame

**Planning notes**: Consider the cabinet depth, Spacing between meter plate and door for:
TwinLine-G, 225 mm, depth = 126.5 - 139 mm, TwinLine-L, depth mm = 141.5 - 154 mm, TwinLine-W, 350 mm depth = 168 - 180.5 mm
C-cabinets, 260 mm depth = 141.5 mm, W-, WS-, WSO-cabinets, 360 mm depth = 172 mm
TriLine®,, 325 mm depth = 148 mm, TriLine®, 425 mm depth = 198 mm
Important: Plan at least one module with a width of 250 mm above and below meter plate modules.



ZX70



VS659

| Article | Height GU | OH | mm | Pieces | Type | Ord. no. | Price |
|---|---|---|---|---|---|---|---|
| Vertical partitions, plastic<br>Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module.<br>Colour similar to RAL 7035 | 3 | 00 | 450 | 1 | ZX69 | 2CPX039069R9999 | |
| | 4 | 0 | 600 | 1 | ZX70 | 2CPX039070R9999 | |
| | 6 | 2 | 900 | 1 | ZX72 | 2CPX039072R9999 | |
| EDS assembly (integrated snapping and contact unit ) with long feeder and outgoing cables<br>For electronic domestic meters (EDS)<br>With feeder cables 10 mm² L1, L2 and L3<br>Length 1000 mm without wire end sleeves<br>With outgoing lines 10 mm² L1, L2 and L3<br>Length 1000 mm without wire end sleeves | | | | 1 | VS659 | 2CPX039932R9999 | |

# Enclosures

## Modular distribution panel system CombiLine N, Module combinations for busbars TwinLine cabinet to cabinet connections

### Combination options on EDF mounting frame

| | Module type on top | M(B)S…24 | | | M(B)S…27 | | | M(B)N…74 M(B)N…75 | | | M(B)N…62 M(B)N…63 | | | M(B)R…02 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Module type bottom | To be used with TwinLine | G | L | W | G | L | W | G | L | W | G | L | W | G | L | W |
| M(B)S…24 | G | 1 / 0 / -1 | | | 1 / 0 / -1 | | | 1 / 0 | | | | | | 1 | | |
| | L | | 1 / 0 / -1 | | | 1 / 0 / -1 | | | 1 | | | | | | 1 | |
| | W | | | 1 / 0 / -1 | | | 1 / 0 / -1 | | | 1 | | | | | | 1 |
| M(B)S…27 | G | 1 / 0 / -1 | | | 0 / -1 | | | 1 / 0 | | | | | | 1 | | |
| | L | | 1 / 0 / -1 | | | 1 / 0 / -1 | | | 1 * | | | | | | 1 | |
| | W | | | 1 / 0 / -1 | | | 1 / 0 / -1 | | | 1 | | | | | | 1 |
| M(B)N…74 M(B)N…75 | G | 1 / 0 | | | 1 / 0 | | | 1 / 0 | | | | | | 1 | | |
| | L | | 1 | | | 1 | | | 1 | | | | | | 1 | |
| | W | | | 1 | | | 1 | | | 1 | | | | | | 1 |
| M(B)N…62 M(B)N…63 | G | | | | | | | | | | | | | | | |
| | L | | | | | | | | | | | | | | | |
| | W | | | | | | | | | | | | | | | |
| M(B)R…02 | G | 1 | | | 1 | | | 1 | | | | | | 1 | | |
| | L | | 1 | | | 1 | | | 1 | | | | | | 1 | |
| | W | | | 1 | | | 1 | | | 1 | | | | | | 1 |

* Mounting position of the sample configuration of the next page

### Combination options on WR mounting frame

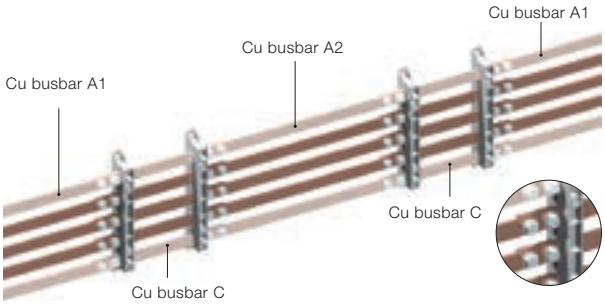
| | Module type on top | M(B)S…24 | | | M(B)S…27 | | | M(B)N…74 M(B)N…75 | | | M(B)N…62 M(B)N…63 | | | M(B)R…02 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Module type bottom | To be used with TwinLine | G | L | W | G | L | W | G | L | W | G | L | W | G | L | W |
| M(B)S…24 | G | - | | | - | | | - | | | | | | - | | |
| | L | | -1 | | | -1 | | | - | | | -1 | | | - | |
| | W | | | -1 | | | -1 | | | - | | | -1 | | | - |
| M(B)S…27 | G | - | | | -1 | | | - | | | | | | - | | |
| | L | | -1 | | | -1 | | | - | | | -1 * | | | - | |
| | W | | | -1 | | | -1 | | | - | | | -1 | | | - |
| M(B)N…74 M(B)N…75 | G | - | | | - | | | 1 / 0 | | | | | | 1 | | |
| | L | | - | | | - | | | 1 | | | - | | | 1 | |
| | W | | | - | | | - | | | 1 | | | - | | | 1 |
| M(B)N…62 M(B)N…63 | G | | | | | | | | | | | | | | | |
| | L | | -1 | | | -1 | | | - | | | -1 | | | - | |
| | W | | | -1 | | | -1 | | | - | | | -1 | | | - |
| M(B)R…02 | G | - | | | - | | | 1 | | | | | | 1 | | |
| | L | | - | | | - | | | 1 | | | - | | | 1 | |
| | W | | | - | | | - | | | 1 | | | - | | | 1 |

* Mounting position of the sample configuration of the next page

**Legend for the tables**

**0** = installation position 0 is possible
**1** = installation position 1 is possible
**-1** = installation position -1 is possible
**1/0** = installation positions 1 or 0 are possible
**0/-1** = installation positions 0 or -1 are possible
**1/0/-1** = installation positions 1 and 0 and -1 are possible

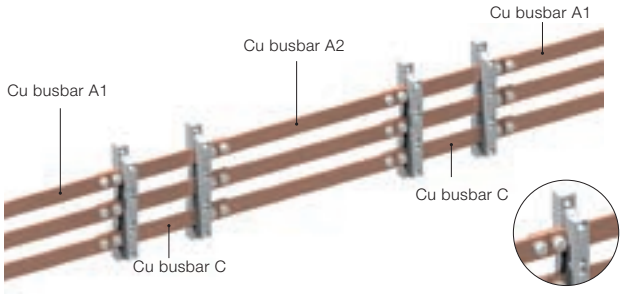
# Enclosures
## Modular distribution panel system CombiLine N
## Busbars for the TwinLine cabinet connection for M(B)S…24




- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Max. five Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 138*43 | 1 | ZX2224 | 2CPX042630R9999 | | ZXM2224 | 2CPX042672R9999 | |
| | | 2 | 388*43 | 1 | ZX2225 | 2CPX042631R9999 | | ZXM2225 | 2CPX042673R9999 | |
| | | 3 | 638*43 | 1 | ZX2226 | 2CPX042632R9999 | | ZXM2226 | 2CPX042674R9999 | |
| | | 4 | 888*43 | 1 | ZX2227 | 2CPX042633R9999 | | ZXM2227 | 2CPX042675R9999 | |
| | | 5 | 1138*43 | 1 | ZX2228 | 2CPX042634R9999 | | ZXM2228 | 2CPX042676R9999 | |
| | | 6 | 1388*43 | 1 | ZX2229 | 2CPX042635R9999 | | ZXM2229 | 2CPX042677R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 43 + 95 + 43 | 1 | ZX2324 | 2CPX042714R9999 | | ZXM2324 | 2CPX042750R9999 | |
| | | 2 | 43 + 345 + 43 | 1 | ZX2325 | 2CPX042715R9999 | | ZXM2325 | 2CPX042751R9999 | |
| | | 3 | 43 + 595 + 43 | 1 | ZX2326 | 2CPX042716R9999 | | ZXM2326 | 2CPX042752R9999 | |
| | | 4 | 43 + 845 + 43 | 1 | ZX2327 | 2CPX042717R9999 | | ZXM2327 | 2CPX042753R9999 | |
| | | 5 | 43 + 1095 + 43 | 1 | ZX2328 | 2CPX042718R9999 | | ZXM2328 | 2CPX042754R9999 | |
| | | 6 | 43 + 1345 + 43 | 1 | ZX2329 | 2CPX042719R9999 | | ZXM2329 | 2CPX042755R9999 | |
| **Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | - | 208 | 1 | ZX2405 | 2CPX042787R9999 | | - | - | - |

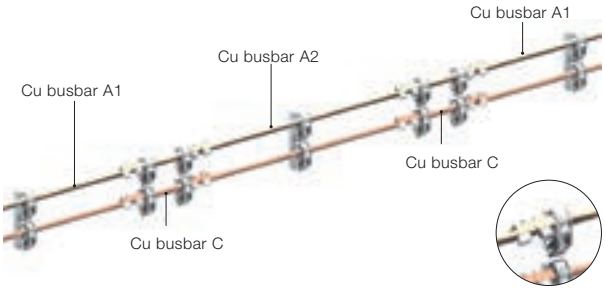
# Enclosures
## Modular distribution panel system CombiLine N
## Busbars for the TwinLine cabinet connection for M(B)S…27




- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 5 | 440 | 1 | 138*43 | 1 | ZX2236 | 2CPX042642R9999 | | ZXM2236 | 2CPX042684R9999 | |
| | | 2 | 388*43 | 1 | ZX2237 | 2CPX042643R9999 | | ZXM2237 | 2CPX042685R9999 | |
| | | 3 | 638*43 | 1 | ZX2238 | 2CPX042644R9999 | | ZXM2238 | 2CPX042686R9999 | |
| | | 4 | 888*43 | 1 | ZX2239 | 2CPX042645R9999 | | ZXM2239 | 2CPX042687R9999 | |
| | | 5 | 1138*43 | 1 | ZX2240 | 2CPX042646R9999 | | ZXM2240 | 2CPX042688R9999 | |
| | | 6 | 1388*43 | 1 | ZX2241 | 2CPX042647R9999 | | ZXM2241 | 2CPX042689R9999 | |
| 30 x 10 | 630 | 1 | 138*43 | 1 | ZX2248 | 2CPX042654R9999 | | ZXM2248 | 2CPX042696R9999 | |
| | | 2 | 388*43 | 1 | ZX2249 | 2CPX042655R9999 | | ZXM2249 | 2CPX042697R9999 | |
| | | 3 | 638*43 | 1 | ZX2250 | 2CPX042656R9999 | | ZXM2250 | 2CPX042698R9999 | |
| | | 4 | 888*43 | 1 | ZX2251 | 2CPX042657R9999 | | ZXM2251 | 2CPX042699R9999 | |
| | | 5 | 1138*43 | 1 | ZX2252 | 2CPX042658R9999 | | ZXM2252 | 2CPX042700R9999 | |
| | | 6 | 1388*43 | 1 | ZX2253 | 2CPX042659R9999 | | ZXM2253 | 2CPX042701R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets** | | | | | | | | | | |
| 30 x 5 | 440 | 1 | 43 + 95 + 43 | 1 | ZX2336 | 2CPX042726R9999 | | ZXM2336 | 2CPX042762R9999 | |
| | | 2 | 43 + 345 + 43 | 1 | ZX2337 | 2CPX042727R9999 | | ZXM2337 | 2CPX042763R9999 | |
| | | 3 | 43 + 595 + 43 | 1 | ZX2338 | 2CPX042728R9999 | | ZXM2338 | 2CPX042764R9999 | |
| | | 4 | 43 + 845 + 43 | 1 | ZX2339 | 2CPX042729R9999 | | ZXM2339 | 2CPX042765R9999 | |
| | | 5 | 43 + 1095 + 43 | 1 | ZX2340 | 2CPX042730R9999 | | ZXM2340 | 2CPX042766R9999 | |
| | | 6 | 43 + 1345 + 43 | 1 | ZX2341 | 2CPX042731R9999 | | ZXM2341 | 2CPX042767R9999 | |
| 30 x 10 | 630 | 1 | 43 + 95 + 43 | 1 | ZX2348 | 2CPX042738R9999 | | ZXM2348 | 2CPX042774R9999 | |
| | | 2 | 43 + 345 + 43 | 1 | ZX2349 | 2CPX042739R9999 | | ZXM2349 | 2CPX042775R9999 | |
| | | 3 | 43 + 595 + 43 | 1 | ZX2350 | 2CPX042740R9999 | | ZXM2350 | 2CPX042776R9999 | |
| | | 4 | 43 + 845 + 43 | 1 | ZX2351 | 2CPX042741R9999 | | ZXM2351 | 2CPX042777R9999 | |
| | | 5 | 43 + 1095 + 43 | 1 | ZX2352 | 2CPX042742R9999 | | ZXM2352 | 2CPX042778R9999 | |
| | | 6 | 43 + 1345 + 43 | 1 | ZX2353 | 2CPX042743R9999 | | ZXM2353 | 2CPX042779R9999 | |
| **Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 5 | 440 | | 208 | 1 | ZX2407 | 2CPX042789R9999 | | - | - | - |
| 30 x 10 | 630 | | 208 | 1 | ZX2408 | 2CPX042790R9999 | | - | - | - |

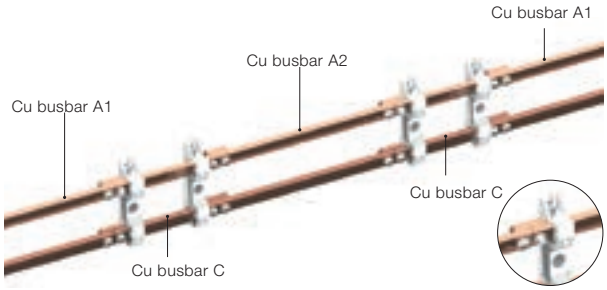
# Enclosures
## Modular distribution panel system CombiLine N
## Busbars for the TwinLine cabinet connection for M(B)N…74+75




- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Two Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 200*43 | 1 | ZX2230 | 2CPX042636R9999 | | ZXM2230 | 2CPX042678R9999 | |
| | | 2 | 450*43 | 1 | ZX2231 | 2CPX042637R9999 | | ZXM2231 | 2CPX042679R9999 | |
| | | 3 | 700*43 | 1 | ZX2232 | 2CPX042638R9999 | | ZXM2232 | 2CPX042680R9999 | |
| | | 4 | 950*43 | 1 | ZX2233 | 2CPX042639R9999 | | ZXM2233 | 2CPX042681R9999 | |
| | | 5 | 1200*43 | 1 | ZX2234 | 2CPX042640R9999 | | ZXM2234 | 2CPX042682R9999 | |
| | | 6 | 1450*43 | 1 | ZX2235 | 2CPX042641R9999 | | ZXM2235 | 2CPX042683R9999 | |
| 30 x 5 | 440 | 1 | 200*43 | 1 | ZX2242 | 2CPX042648R9999 | | ZXM2242 | 2CPX042690R9999 | |
| | | 2 | 450*43 | 1 | ZX2243 | 2CPX042649R9999 | | ZXM2243 | 2CPX042691R9999 | |
| | | 3 | 700*43 | 1 | ZX2244 | 2CPX042650R9999 | | ZXM2244 | 2CPX042692R9999 | |
| | | 4 | 950*43 | 1 | ZX2245 | 2CPX042651R9999 | | ZXM2245 | 2CPX042693R9999 | |
| | | 5 | 1200*43 | 1 | ZX2246 | 2CPX042652R9999 | | ZXM2246 | 2CPX042694R9999 | |
| | | 6 | 1450*43 | 1 | ZX2247 | 2CPX042653R9999 | | ZXM2247 | 2CPX042695R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 43 + 154 + 43 | 1 | ZX2330 | 2CPX042720R9999 | | ZXM2330 | 2CPX042756R9999 | |
| | | 2 | 43 + 404 + 43 | 1 | ZX2331 | 2CPX042721R9999 | | ZXM2331 | 2CPX042757R9999 | |
| | | 3 | 43 + 654 + 43 | 1 | ZX2332 | 2CPX042722R9999 | | ZXM2332 | 2CPX042758R9999 | |
| | | 4 | 43 + 904 + 43 | 1 | ZX2333 | 2CPX042723R9999 | | ZXM2333 | 2CPX042759R9999 | |
| | | 5 | 43 + 1154 + 43 | 1 | ZX2334 | 2CPX042724R9999 | | ZXM2334 | 2CPX042760R9999 | |
| | | 6 | 43 + 1404 + 43 | 1 | ZX2335 | 2CPX042725R9999 | | ZXM2335 | 2CPX042761R9999 | |
| 30 x 5 | 440 | 1 | 43 + 154 + 43 | 1 | ZX2342 | 2CPX042732R9999 | | ZXM2342 | 2CPX042768R9999 | |
| | | 2 | 43 + 404 + 43 | 1 | ZX2343 | 2CPX042733R9999 | | ZXM2343 | 2CPX042769R9999 | |
| | | 3 | 43 + 654 + 43 | 1 | ZX2344 | 2CPX042734R9999 | | ZXM2344 | 2CPX042770R9999 | |
| | | 4 | 43 + 904 + 43 | 1 | ZX2345 | 2CPX042735R9999 | | ZXM2345 | 2CPX042771R9999 | |
| | | 5 | 43 + 1154 + 43 | 1 | ZX2346 | 2CPX042736R9999 | | ZXM2346 | 2CPX042772R9999 | |
| | | 6 | 43 + 1404 + 43 | 1 | ZX2347 | 2CPX042737R9999 | | ZXM2347 | 2CPX042773R9999 | |
| **Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | - | 149 | 1 | ZX2404 | 2CPX042786R9999 | | - | - | - |
| 30 x 5 | 440 | - | 149 | 1 | ZX2406 | 2CPX042788R9999 | | - | - | - |

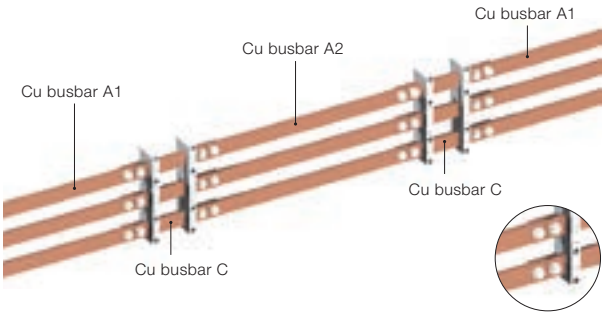
# Enclosures
## Modular distribution panel system CombiLine N
## Busbars for the TwinLine cabinet connection for M(B)N….62+63




| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 149*43 | 1 | ZX2254 | 2CPX042660R9999 | | ZXM2254 | 2CPX042702R9999 | |
| | | 2 | 399*43 | 1 | ZX2255 | 2CPX042661R9999 | | ZXM2255 | 2CPX042703R9999 | |
| | | 3 | 649*43 | 1 | ZX2256 | 2CPX042662R9999 | | ZXM2256 | 2CPX042704R9999 | |
| | | 4 | 899*43 | 1 | ZX2257 | 2CPX042663R9999 | | ZXM2257 | 2CPX042705R9999 | |
| | | 5 | 1149*43 | 1 | ZX2258 | 2CPX042664R9999 | | ZXM2258 | 2CPX042706R9999 | |
| | | 6 | 1399*43 | 1 | ZX2259 | 2CPX042665R9999 | | ZXM2259 | 2CPX042707R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 43 + 95 + 43 | 1 | ZX2348 | 2CPX042738R9999 | | ZXM2348 | 2CPX042774R9999 | |
| | | 2 | 43 + 345 + 43 | 1 | ZX2349 | 2CPX042739R9999 | | ZXM2349 | 2CPX042775R9999 | |
| | | 3 | 43 + 595 + 43 | 1 | ZX2350 | 2CPX042740R9999 | | ZXM2350 | 2CPX042776R9999 | |
| | | 4 | 43 + 845 + 43 | 1 | ZX2351 | 2CPX042741R9999 | | ZXM2351 | 2CPX042777R9999 | |
| | | 5 | 43 + 1095 + 43 | 1 | ZX2352 | 2CPX042742R9999 | | ZXM2352 | 2CPX042778R9999 | |
| | | 6 | 43 + 1345 + 43 | 1 | ZX2353 | 2CPX042743R9999 | | ZXM2353 | 2CPX042779R9999 | |
| **Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | | 208 | 1 | ZX2408 | 2CPX042790R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TwinLine cabinet connection in the module M(B)R…02

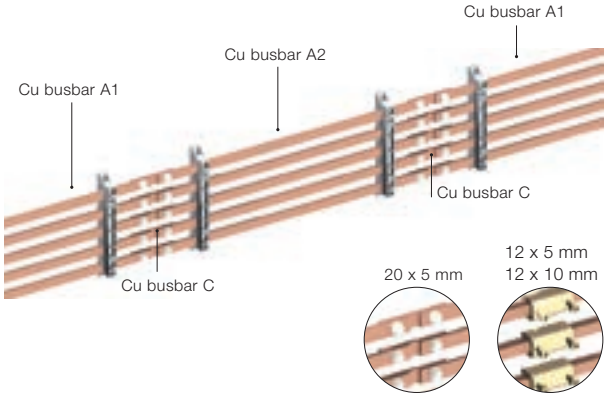



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** For equipped MR...02B modules the external mounting fuse sockets, might not be necessary for:
  MR102B in case of a connection on the left, 1 piece,
  MR202B in case of a connection on the left, 1 piece,
  MR302B in case of a connection on the left or on the right, 2 pieces respectively that will have to be replaced by empty space covers ZA4P10 in the cover
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 200*43 | 1 | ZX2230 | 2CPX042636R9999 | | ZXM2230 | 2CPX042678R9999 | |
| | | 2 | 450*43 | 1 | ZX2231 | 2CPX042637R9999 | | ZXM2231 | 2CPX042679R9999 | |
| | | 3 | 700*43 | 1 | ZX2232 | 2CPX042638R9999 | | ZXM2232 | 2CPX042680R9999 | |
| | | 4 | 950*43 | 1 | ZX2233 | 2CPX042639R9999 | | ZXM2233 | 2CPX042681R9999 | |
| | | 5 | 1200*43 | 1 | ZX2234 | 2CPX042640R9999 | | ZXM2234 | 2CPX042682R9999 | |
| | | 6 | 1450*43 | 1 | ZX2235 | 2CPX042641R9999 | | ZXM2235 | 2CPX042683R9999 | |
| 30 x 5 | 440 | 1 | 200*43 | 1 | ZX2242 | 2CPX042648R9999 | | ZXM2242 | 2CPX042690R9999 | |
| | | 2 | 450*43 | 1 | ZX2243 | 2CPX042649R9999 | | ZXM2243 | 2CPX042691R9999 | |
| | | 3 | 700*43 | 1 | ZX2244 | 2CPX042650R9999 | | ZXM2244 | 2CPX042692R9999 | |
| | | 4 | 950*43 | 1 | ZX2245 | 2CPX042651R9999 | | ZXM2245 | 2CPX042693R9999 | |
| | | 5 | 1200*43 | 1 | ZX2246 | 2CPX042652R9999 | | ZXM2246 | 2CPX042694R9999 | |
| | | 6 | 1450*43 | 1 | ZX2247 | 2CPX042653R9999 | | ZXM2247 | 2CPX042695R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets** | | | | | | | | | | |
| 20 x 5 | 320 | 1 | 43 + 154 + 43 | 1 | ZX2330 | 2CPX042720R9999 | | ZXM2330 | 2CPX042756R9999 | |
| | | 2 | 43 + 404 + 43 | 1 | ZX2331 | 2CPX042721R9999 | | ZXM2331 | 2CPX042757R9999 | |
| | | 3 | 43 + 654 + 43 | 1 | ZX2332 | 2CPX042722R9999 | | ZXM2332 | 2CPX042758R9999 | |
| | | 4 | 43 + 904 + 43 | 1 | ZX2333 | 2CPX042723R9999 | | ZXM2333 | 2CPX042759R9999 | |
| | | 5 | 43 + 1154 + 43 | 1 | ZX2334 | 2CPX042724R9999 | | ZXM2334 | 2CPX042760R9999 | |
| | | 6 | 43 + 1404 + 43 | 1 | ZX2335 | 2CPX042725R9999 | | ZXM2335 | 2CPX042761R9999 | |
| 30 x 5 | 440 | 1 | 43 + 154 + 43 | 1 | ZX2342 | 2CPX042732R9999 | | ZXM2342 | 2CPX042768R9999 | |
| | | 2 | 43 + 404 + 43 | 1 | ZX2343 | 2CPX042733R9999 | | ZXM2343 | 2CPX042769R9999 | |
| | | 3 | 43 + 654 + 43 | 1 | ZX2344 | 2CPX042734R9999 | | ZXM2344 | 2CPX042770R9999 | |
| | | 4 | 43 + 904 + 43 | 1 | ZX2345 | 2CPX042735R9999 | | ZXM2345 | 2CPX042771R9999 | |
| | | 5 | 43 + 1154 + 43 | 1 | ZX2346 | 2CPX042736R9999 | | ZXM2346 | 2CPX042772R9999 | |
| | | 6 | 43 + 1404 + 43 | 1 | ZX2347 | 2CPX042737R9999 | | ZXM2347 | 2CPX042773R9999 | |
| **Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 20 x 5 | 320 | - | 149 | 1 | ZX2404 | 2CPX042786R9999 | | - | - | - |
| 30 x 5 | 440 | - | 149 | 1 | ZX2406 | 2CPX042788R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)S...24

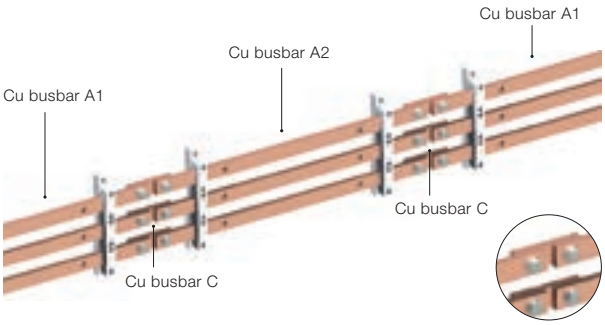



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Max. five Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 298 | 1 | ZX1040 | 2CPX041906R9999 | | ZXM1040 | 2CPX041516R9999 | |
| | | 2 | 548 | 1 | ZX1041 | 2CPX041907R9999 | | ZXM1041 | 2CPX041517R9999 | |
| | | 3 | 798 | 1 | ZX1042 | 2CPX041908R9999 | | ZXM1042 | 2CPX041518R9999 | |
| | | 4 | 1048 | 1 | ZX1043 | 2CPX041909R9999 | | ZXM1043 | 2CPX041519R9999 | |
| | | 5 | 1298 | 1 | ZX1044 | 2CPX041910R9999 | | ZXM1044 | 2CPX041520R9999 | |
| 12 x 10 | 360 | 1 | 298 | 1 | ZX1046 | 2CPX041912R9999 | | ZXM1046 | 2CPX041522R9999 | |
| | | 2 | 548 | 1 | ZX1047 | 2CPX041913R9999 | | ZXM1047 | 2CPX041523R9999 | |
| | | 3 | 798 | 1 | ZX1048 | 2CPX041914R9999 | | ZXM1048 | 2CPX041524R9999 | |
| | | 4 | 1048 | 1 | ZX1049 | 2CPX041915R9999 | | ZXM1049 | 2CPX041525R9999 | |
| | | 5 | 1298 | 1 | ZX1050 | 2CPX041916R9999 | | ZXM1050 | 2CPX041526R9999 | |
| 20 x 5 | 320 | 1 | 298 | 1 | ZX1052 | 2CPX041918R9999 | | ZXM1052 | 2CPX041528R9999 | |
| | | 2 | 548 | 1 | ZX1053 | 2CPX041919R9999 | | ZXM1053 | 2CPX041529R9999 | |
| | | 3 | 798 | 1 | ZX1054 | 2CPX041920R9999 | | ZXM1054 | 2CPX041530R9999 | |
| | | 4 | 1048 | 1 | ZX1055 | 2CPX041921R9999 | | ZXM1055 | 2CPX041531R9999 | |
| | | 5 | 1298 | 1 | ZX1056 | 2CPX041922R9999 | | ZXM1056 | 2CPX041532R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 350 | 1 | ZX1080 | 2CPX041942R9999 | | ZXM1080 | 2CPX041552R9999 | |
| | | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 12 x 10 | 360 | 1 | 350 | 1 | ZX1086 | 2CPX041948R9999 | | ZXM1086 | 2CPX041558R9999 | |
| | | 2 | 600 | 1 | ZX1087 | 2CPX041949R9999 | | ZXM1087 | 2CPX041559R9999 | |
| | | 3 | 850 | 1 | ZX1088 | 2CPX041950R9999 | | ZXM1088 | 2CPX041560R9999 | |
| | | 4 | 1100 | 1 | ZX1089 | 2CPX041951R9999 | | ZXM1089 | 2CPX041561R9999 | |
| | | 5 | 1350 | 1 | ZX1090 | 2CPX041952R9999 | | ZXM1090 | 2CPX041562R9999 | |
| 20 x 5 | 320 | 1 | 350 | 1 | ZX1092 | 2CPX041954R9999 | | ZXM1092 | 2CPX041564R9999 | |
| | | 2 | 600 | 1 | ZX1093 | 2CPX041955R9999 | | ZXM1093 | 2CPX041565R9999 | |
| | | 3 | 850 | 1 | ZX1094 | 2CPX041956R9999 | | ZXM1094 | 2CPX041566R9999 | |
| | | 4 | 1100 | 1 | ZX1095 | 2CPX041957R9999 | | ZXM1095 | 2CPX041567R9999 | |
| | | 5 | 1350 | 1 | ZX1096 | 2CPX041958R9999 | | ZXM1096 | 2CPX041568R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 12 x 10 | 360 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 20 x 5 | 320 | | 94 | 1 | ZX1182 | 2CPX042022R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)S... 27

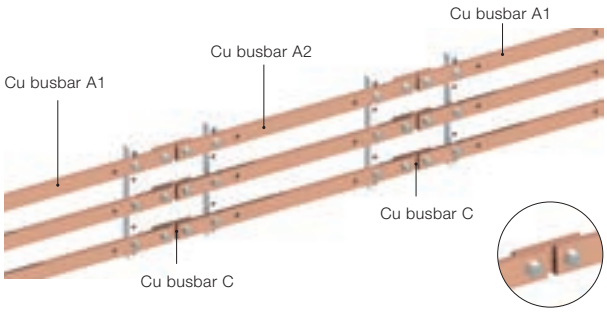



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 5 | 440 | 1 | 298 | 1 | ZX1058 | 2CPX041924R9999 | | ZXM1058 | 2CPX041534R9999 | |
| | | 2 | 548 | 1 | ZX1059 | 2CPX041925R9999 | | ZXM1059 | 2CPX041535R9999 | |
| | | 3 | 798 | 1 | ZX1060 | 2CPX041926R9999 | | ZXM1060 | 2CPX041536R9999 | |
| | | 4 | 1048 | 1 | ZX1061 | 2CPX041927R9999 | | ZXM1061 | 2CPX041537R9999 | |
| | | 5 | 1298 | 1 | ZX1062 | 2CPX041928R9999 | | ZXM1062 | 2CPX041538R9999 | |
| 30 x 10 | 630 | 1 | 298 | 1 | ZX1064 | 2CPX041930R9999 | | ZXM1064 | 2CPX041540R9999 | |
| | | 2 | 548 | 1 | ZX1065 | 2CPX041931R9999 | | ZXM1065 | 2CPX041541R9999 | |
| | | 3 | 798 | 1 | ZX1066 | 2CPX041932R9999 | | ZXM1066 | 2CPX041542R9999 | |
| | | 4 | 1048 | 1 | ZX1067 | 2CPX041933R9999 | | ZXM1067 | 2CPX041543R9999 | |
| | | 5 | 1298 | 1 | ZX1068 | 2CPX041934R9999 | | ZXM1068 | 2CPX041544R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 30 x 5 | 440 | 1 | 350 | 1 | ZX1098 | 2CPX041960R9999 | | ZXM1098 | 2CPX041570R9999 | |
| | | 2 | 600 | 1 | ZX1099 | 2CPX041961R9999 | | ZXM1099 | 2CPX041571R9999 | |
| | | 3 | 850 | 1 | ZX1100 | 2CPX041962R9999 | | ZXM1100 | 2CPX041572R9999 | |
| | | 4 | 1100 | 1 | ZX1101 | 2CPX041963R9999 | | ZXM1101 | 2CPX041573R9999 | |
| | | 5 | 1350 | 1 | ZX1102 | 2CPX041964R9999 | | ZXM1102 | 2CPX041574R9999 | |
| 30 x 10 | 630 | 1 | 350 | 1 | ZX1104 | 2CPX041966R9999 | | ZXM1104 | 2CPX041576R9999 | |
| | | 2 | 600 | 1 | ZX1105 | 2CPX041967R9999 | | ZXM1105 | 2CPX041577R9999 | |
| | | 3 | 850 | 1 | ZX1106 | 2CPX041968R9999 | | ZXM1106 | 2CPX041578R9999 | |
| | | 4 | 1100 | 1 | ZX1107 | 2CPX041969R9999 | | ZXM1107 | 2CPX041579R9999 | |
| | | 5 | 1350 | 1 | ZX1108 | 2CPX041970R9999 | | ZXM1108 | 2CPX041580R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 5 | 250 | | 94 | 1 | ZX1183 | 2CPX042023R9999 | | - | - | - |
| 30 x 10 | 360 | | 94 | 1 | ZX1184 | 2CPX042024R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)S...31

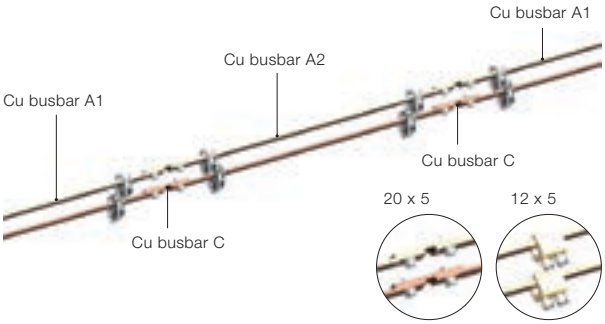



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts
- and fastening material
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 40 x 10 | 850 | 1 | 298 | 1 | ZX1070 | 2CPX041936R9999 | | ZXM1070 | 2CPX041546R9999 | |
| | | 2 | 548 | 1 | ZX1071 | 2CPX041937R9999 | | ZXM1071 | 2CPX041547R9999 | |
| | | 3 | 767 | 1 | ZX1072 | 2CPX041938R9999 | | ZXM1072 | 2CPX041548R9999 | |
| | | 4 | 1048 | 1 | ZX1073 | 2CPX041939R9999 | | ZXM1073 | 2CPX041549R9999 | |
| | | 5 | 1298 | 1 | ZX1074 | 2CPX041940R9999 | | ZXM1074 | 2CPX041550R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 40 x 10 | 850 | 1 | 350 | 1 | ZX1110 | 2CPX041972R9999 | | ZXM1110 | 2CPX041582R9999 | |
| | | 2 | 600 | 1 | ZX1111 | 2CPX041973R9999 | | ZXM1111 | 2CPX041583R9999 | |
| | | 3 | 850 | 1 | ZX1112 | 2CPX041974R9999 | | ZXM1112 | 2CPX041584R9999 | |
| | | 4 | 1100 | 1 | ZX1113 | 2CPX041975R9999 | | ZXM1113 | 2CPX041585R9999 | |
| | | 5 | 1350 | 1 | ZX1114 | 2CPX041976R9999 | | ZXM1114 | 2CPX041586R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 40 x 10 | 850 | | 94 | 1 | ZX1185 | 2CPX042025R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)N...69

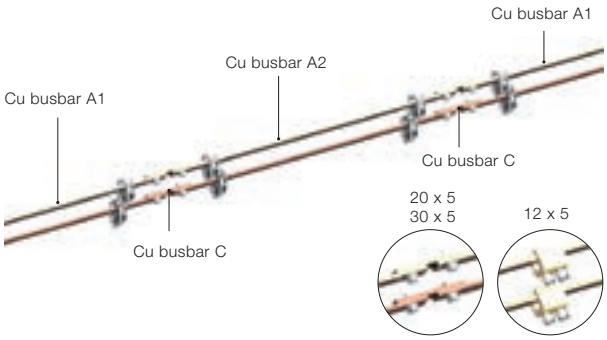



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 277 | 1 | ZX2094 | 2CPX042578R9999 | | ZXM2094 | 2CPX042498R9999 | |
| | | 2 | 527 | 1 | ZX2095 | 2CPX042579R9999 | | ZXM2095 | 2CPX042499R9999 | |
| | | 3 | 777 | 1 | ZX2096 | 2CPX042580R9999 | | ZXM2096 | 2CPX042500R9999 | |
| | | 4 | 1027 | 1 | ZX2097 | 2CPX042581R9999 | | ZXM2097 | 2CPX042501R9999 | |
| | | 5 | 1277 | 1 | ZX2098 | 2CPX042582R9999 | | ZXM2098 | 2CPX042502R9999 | |
| 20 x 5 | 320 | 1 | 277 | 1 | ZX2112 | 2CPX042593R9999 | | ZXM2112 | 2CPX042513R9999 | |
| | | 2 | 527 | 1 | ZX2113 | 2CPX042594R9999 | | ZXM2113 | 2CPX042514R9999 | |
| | | 3 | 777 | 1 | ZX2114 | 2CPX042595R9999 | | ZXM2114 | 2CPX042515R9999 | |
| | | 4 | 1027 | 1 | ZX2115 | 2CPX042596R9999 | | ZXM2115 | 2CPX042516R9999 | |
| | | 5 | 1277 | 1 | ZX2116 | 2CPX042597R9999 | | ZXM2116 | 2CPX042517R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 350 | 1 | ZX1080 | 2CPX041942R9999 | | ZXM1080 | 2CPX041552R9999 | |
| | | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 20 x 5 | 320 | 1 | 350 | 1 | ZX1092 | 2CPX041954R9999 | | ZXM1092 | 2CPX041564R9999 | |
| | | 2 | 600 | 1 | ZX1093 | 2CPX041955R9999 | | ZXM1093 | 2CPX041565R9999 | |
| | | 3 | 850 | 1 | ZX1094 | 2CPX041956R9999 | | ZXM1094 | 2CPX041566R9999 | |
| | | 4 | 1100 | 1 | ZX1095 | 2CPX041957R9999 | | ZXM1095 | 2CPX041567R9999 | |
| | | 5 | 1350 | 1 | ZX1096 | 2CPX041958R9999 | | ZXM1096 | 2CPX041568R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 94 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 20 x 5 | 320 | | 94 | 1 | ZX1182 | 2CPX042022R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)N...74+75

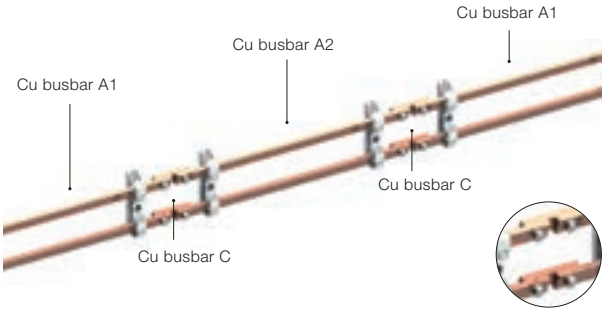



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 298 | 1 | ZX1040 | 2CPX041906R9999 | | ZXM1040 | 2CPX041516R9999 | |
| | | 2 | 548 | 1 | ZX1041 | 2CPX041907R9999 | | ZXM1041 | 2CPX041517R9999 | |
| | | 3 | 798 | 1 | ZX1042 | 2CPX041908R9999 | | ZXM1042 | 2CPX041518R9999 | |
| | | 4 | 1048 | 1 | ZX1043 | 2CPX041909R9999 | | ZXM1043 | 2CPX041519R9999 | |
| | | 5 | 1298 | 1 | ZX1044 | 2CPX041910R9999 | | ZXM1044 | 2CPX041520R9999 | |
| 20 x 5 | 320 | 1 | 298 | 1 | ZX1052 | 2CPX041918R9999 | | ZXM1052 | 2CPX041528R9999 | |
| | | 2 | 548 | 1 | ZX1053 | 2CPX041919R9999 | | ZXM1053 | 2CPX041529R9999 | |
| | | 3 | 798 | 1 | ZX1054 | 2CPX041920R9999 | | ZXM1054 | 2CPX041530R9999 | |
| | | 4 | 1048 | 1 | ZX1055 | 2CPX041921R9999 | | ZXM1055 | 2CPX041531R9999 | |
| | | 5 | 1298 | 1 | ZX1056 | 2CPX041922R9999 | | ZXM1056 | 2CPX041532R9999 | |
| 30 x 5 | 440 | 1 | 298 | 1 | ZX1058 | 2CPX041924R9999 | | ZXM1058 | 2CPX041534R9999 | |
| | | 2 | 548 | 1 | ZX1059 | 2CPX041925R9999 | | ZXM1059 | 2CPX041535R9999 | |
| | | 3 | 798 | 1 | ZX1060 | 2CPX041926R9999 | | ZXM1060 | 2CPX041536R9999 | |
| | | 4 | 1048 | 1 | ZX1061 | 2CPX041927R9999 | | ZXM1061 | 2CPX041537R9999 | |
| | | 5 | 1298 | 1 | ZX1062 | 2CPX041928R9999 | | ZXM1062 | 2CPX041538R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 350 | 1 | ZX1080 | 2CPX041942R9999 | | ZXM1080 | 2CPX041552R9999 | |
| | | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 20 x 5 | 320 | 1 | 350 | 1 | ZX1092 | 2CPX041954R9999 | | ZXM1092 | 2CPX041564R9999 | |
| | | 2 | 600 | 1 | ZX1093 | 2CPX041955R9999 | | ZXM1093 | 2CPX041565R9999 | |
| | | 3 | 850 | 1 | ZX1094 | 2CPX041956R9999 | | ZXM1094 | 2CPX041566R9999 | |
| | | 4 | 1100 | 1 | ZX1095 | 2CPX041957R9999 | | ZXM1095 | 2CPX041567R9999 | |
| | | 5 | 1350 | 1 | ZX1096 | 2CPX041958R9999 | | ZXM1096 | 2CPX041568R9999 | |
| 30 x 5 | 440 | 1 | 350 | 1 | ZX1098 | 2CPX041960R9999 | | ZXM1098 | 2CPX041570R9999 | |
| | | 2 | 600 | 1 | ZX1099 | 2CPX041961R9999 | | ZXM1099 | 2CPX041571R9999 | |
| | | 3 | 850 | 1 | ZX1100 | 2CPX041962R9999 | | ZXM1100 | 2CPX041572R9999 | |
| | | 4 | 1100 | 1 | ZX1101 | 2CPX041963R9999 | | ZXM1101 | 2CPX041573R9999 | |
| | | 5 | 1350 | 1 | ZX1102 | 2CPX041964R9999 | | ZXM1102 | 2CPX041574R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 20 x 5 | 320 | | 94 | 1 | ZX1182 | 2CPX042022R9999 | | - | - | - |
| 30 x 5 | 440 | | 94 | 1 | ZX1183 | 2CPX042023R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)N...62+63

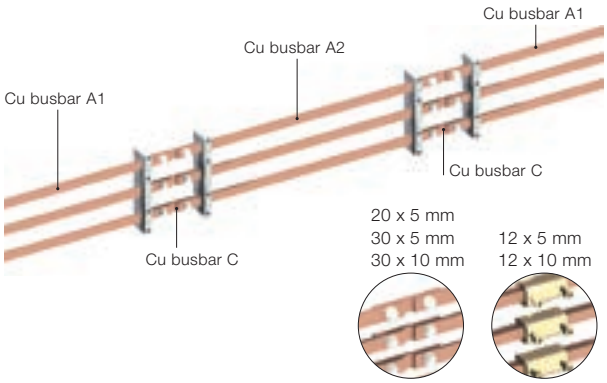



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 253 | 1 | ZX2130 | 2CPX042608R9999 | | ZXM2130 | 2CPX042528R9999 | |
| | | 2 | 503 | 1 | ZX2131 | 2CPX042609R9999 | | ZXM2131 | 2CPX042529R9999 | |
| | | 3 | 753 | 1 | ZX2132 | 2CPX042610R9999 | | ZXM2132 | 2CPX042530R9999 | |
| | | 4 | 1003 | 1 | ZX2133 | 2CPX042611R9999 | | ZXM2133 | 2CPX042531R9999 | |
| | | 5 | 1253 | 1 | ZX2134 | 2CPX042612R9999 | | ZXM2134 | 2CPX042532R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 350 | 1 | ZX1104 | 2CPX041966R9999 | | ZXM1104 | 2CPX041576R9999 | |
| | | 2 | 600 | 1 | ZX1105 | 2CPX041967R9999 | | ZXM1105 | 2CPX041577R9999 | |
| | | 3 | 850 | 1 | ZX1106 | 2CPX041968R9999 | | ZXM1106 | 2CPX041578R9999 | |
| | | 4 | 1100 | 1 | ZX1107 | 2CPX041969R9999 | | ZXM1107 | 2CPX041579R9999 | |
| | | 5 | 1350 | 1 | ZX1108 | 2CPX041970R9999 | | ZXM1108 | 2CPX041580R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 360 | | 94 | 1 | ZX1184 | 2CPX042024R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...03



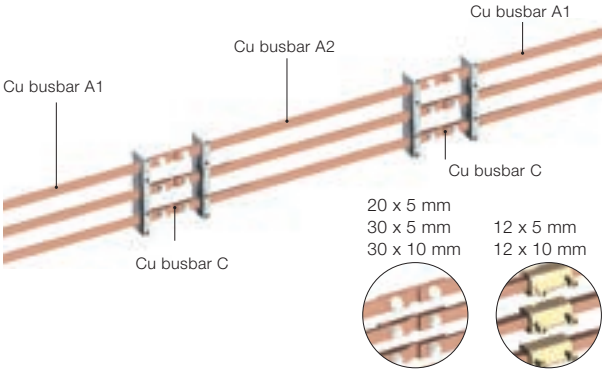

- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 272 | 1 | ZX2088 | 2CPX042573R9999 | | ZXM2088 | 2CPX042493R9999 | |
| | | 2 | 522 | 1 | ZX2089 | 2CPX042574R9999 | | ZXM2089 | 2CPX042494R9999 | |
| | | 3 | 772 | 1 | ZX2090 | 2CPX042575R9999 | | ZXM2090 | 2CPX042495R9999 | |
| | | 4 | 1022 | 1 | ZX2091 | 2CPX042576R9999 | | ZXM2091 | 2CPX042496R9999 | |
| | | 5 | 1272 | 1 | ZX2092 | 2CPX042577R9999 | | ZXM2092 | 2CPX042497R9999 | |
| 12 x 10 | 360 | 1 | 272 | 1 | ZX2100 | 2CPX042583R9999 | | ZXM2100 | 2CPX042503R9999 | |
| | | 2 | 522 | 1 | ZX2101 | 2CPX042584R9999 | | ZXM2101 | 2CPX042504R9999 | |
| | | 3 | 772 | 1 | ZX2102 | 2CPX042585R9999 | | ZXM2102 | 2CPX042505R9999 | |
| | | 4 | 1022 | 1 | ZX2103 | 2CPX042586R9999 | | ZXM2103 | 2CPX042506R9999 | |
| | | 5 | 1272 | 1 | ZX2104 | 2CPX042587R9999 | | ZXM2104 | 2CPX042507R9999 | |
| 20 x 5 | 320 | 1 | 272 | 1 | ZX2106 | 2CPX042588R9999 | | ZXM2106 | 2CPX042508R9999 | |
| | | 2 | 522 | 1 | ZX2107 | 2CPX042589R9999 | | ZXM2107 | 2CPX042509R9999 | |
| | | 3 | 772 | 1 | ZX2108 | 2CPX042590R9999 | | ZXM2108 | 2CPX042510R9999 | |
| | | 4 | 1022 | 1 | ZX2109 | 2CPX042591R9999 | | ZXM2109 | 2CPX042511R9999 | |
| | | 5 | 1272 | 1 | ZX2110 | 2CPX042592R9999 | | ZXM2110 | 2CPX042512R9999 | |
| 30 x 5 | 440 | 1 | 272 | 1 | ZX2118 | 2CPX042598R9999 | | ZXM2118 | 2CPX042518R9999 | |
| | | 2 | 522 | 1 | ZX2119 | 2CPX042599R9999 | | ZXM2119 | 2CPX042519R9999 | |
| | | 3 | 772 | 1 | ZX2120 | 2CPX042600R9999 | | ZXM2120 | 2CPX042520R9999 | |
| | | 4 | 1022 | 1 | ZX2121 | 2CPX042601R9999 | | ZXM2121 | 2CPX042521R9999 | |
| | | 5 | 1272 | 1 | ZX2122 | 2CPX042602R9999 | | ZXM2122 | 2CPX042522R9999 | |
| 30 x 10 | 630 | 1 | 272 | 1 | ZX2124 | 2CPX042603R9999 | | ZXM2124 | 2CPX042523R9999 | |
| | | 2 | 522 | 1 | ZX2125 | 2CPX042604R9999 | | ZXM2125 | 2CPX042524R9999 | |
| | | 3 | 772 | 1 | ZX2126 | 2CPX042605R9999 | | ZXM2126 | 2CPX042525R9999 | |
| | | 4 | 1022 | 1 | ZX2127 | 2CPX042606R9999 | | ZXM2127 | 2CPX042526R9999 | |
| | | 5 | 1272 | 1 | ZX2128 | 2CPX042607R9999 | | ZXM2128 | 2CPX042527R9999 | |

> A2, busbars for the connection of TriLine cabinets on the right and left side, see next page

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...03

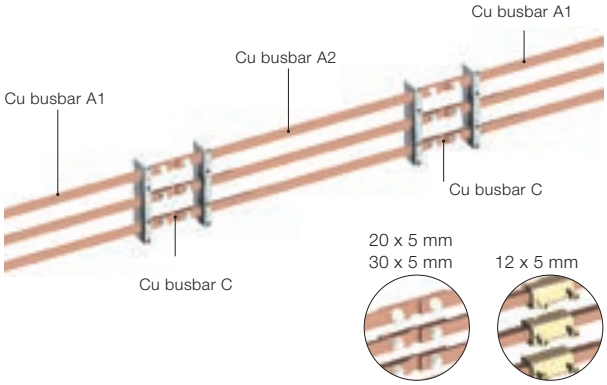



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 350 | 1 | ZX1080 | 2CPX041942R9999 | | ZXM1080 | 2CPX041552R9999 | |
| | | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 12 x 10 | 360 | 1 | 350 | 1 | ZX1086 | 2CPX041948R9999 | | ZXM1086 | 2CPX041558R9999 | |
| | | 2 | 600 | 1 | ZX1087 | 2CPX041949R9999 | | ZXM1087 | 2CPX041559R9999 | |
| | | 3 | 850 | 1 | ZX1088 | 2CPX041950R9999 | | ZXM1088 | 2CPX041560R9999 | |
| | | 4 | 1100 | 1 | ZX1089 | 2CPX041951R9999 | | ZXM1089 | 2CPX041561R9999 | |
| | | 5 | 1350 | 1 | ZX1090 | 2CPX041952R9999 | | ZXM1090 | 2CPX041562R9999 | |
| 20 x 5 | 320 | 1 | 350 | 1 | ZX1092 | 2CPX041954R9999 | | ZXM1092 | 2CPX041564R9999 | |
| | | 2 | 600 | 1 | ZX1093 | 2CPX041955R9999 | | ZXM1093 | 2CPX041565R9999 | |
| | | 3 | 850 | 1 | ZX1094 | 2CPX041956R9999 | | ZXM1094 | 2CPX041566R9999 | |
| | | 4 | 1100 | 1 | ZX1095 | 2CPX041957R9999 | | ZXM1095 | 2CPX041567R9999 | |
| | | 5 | 1350 | 1 | ZX1096 | 2CPX041958R9999 | | ZXM1096 | 2CPX041568R9999 | |
| 30 x 5 | 440 | 1 | 350 | 1 | ZX1098 | 2CPX041960R9999 | | ZXM1098 | 2CPX041570R9999 | |
| | | 2 | 600 | 1 | ZX1099 | 2CPX041961R9999 | | ZXM1099 | 2CPX041571R9999 | |
| | | 3 | 850 | 1 | ZX1100 | 2CPX041962R9999 | | ZXM1100 | 2CPX041572R9999 | |
| | | 4 | 1100 | 1 | ZX1101 | 2CPX041963R9999 | | ZXM1101 | 2CPX041573R9999 | |
| | | 5 | 1350 | 1 | ZX1102 | 2CPX041964R9999 | | ZXM1102 | 2CPX041574R9999 | |
| 30 x 10 | 630 | 1 | 350 | 1 | ZX1104 | 2CPX041966R9999 | | ZXM1104 | 2CPX041576R9999 | |
| | | 2 | 600 | 1 | ZX1105 | 2CPX041967R9999 | | ZXM1105 | 2CPX041577R9999 | |
| | | 3 | 850 | 1 | ZX1106 | 2CPX041968R9999 | | ZXM1106 | 2CPX041578R9999 | |
| | | 4 | 1100 | 1 | ZX1107 | 2CPX041969R9999 | | ZXM1107 | 2CPX041579R9999 | |
| | | 5 | 1350 | 1 | ZX1108 | 2CPX041970R9999 | | ZXM1108 | 2CPX041580R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 12 x 10 | 360 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 20 x 5 | 320 | | 94 | 1 | ZX1182 | 2CPX042022R9999 | | - | - | - |
| 30 x 5 | 440 | | 94 | 1 | ZX1183 | 2CPX042023R9999 | | - | - | - |
| 30 x 10 | 630 | | 94 | 1 | ZX1184 | 2CPX042024R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...02(B)

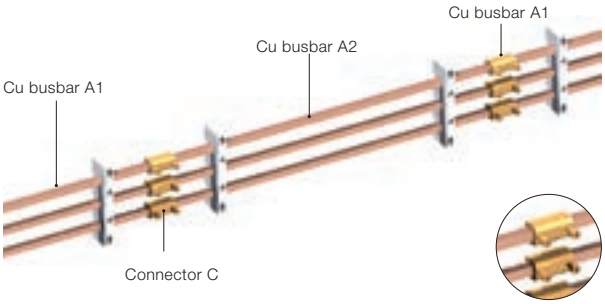



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 298 | 1 | ZX1040 | 2CPX041906R9999 | | ZXM1040 | 2CPX041516R9999 | |
| | | 2 | 548 | 1 | ZX1041 | 2CPX041907R9999 | | ZXM1041 | 2CPX041517R9999 | |
| | | 3 | 798 | 1 | ZX1042 | 2CPX041908R9999 | | ZXM1042 | 2CPX041518R9999 | |
| | | 4 | 1048 | 1 | ZX1043 | 2CPX041909R9999 | | ZXM1043 | 2CPX041519R9999 | |
| | | 5 | 1298 | 1 | ZX1044 | 2CPX041910R9999 | | ZXM1044 | 2CPX041520R9999 | |
| 20 x 5 | 320 | 1 | 298 | 1 | ZX1052 | 2CPX041918R9999 | | ZXM1052 | 2CPX041528R9999 | |
| | | 2 | 548 | 1 | ZX1053 | 2CPX041919R9999 | | ZXM1053 | 2CPX041529R9999 | |
| | | 3 | 798 | 1 | ZX1054 | 2CPX041920R9999 | | ZXM1054 | 2CPX041530R9999 | |
| | | 4 | 1048 | 1 | ZX1055 | 2CPX041921R9999 | | ZXM1055 | 2CPX041531R9999 | |
| | | 5 | 1298 | 1 | ZX1056 | 2CPX041922R9999 | | ZXM1056 | 2CPX041532R9999 | |
| 30 x 5 | 440 | 1 | 298 | 1 | ZX1058 | 2CPX041924R9999 | | ZXM1058 | 2CPX041534R9999 | |
| | | 2 | 548 | 1 | ZX1059 | 2CPX041925R9999 | | ZXM1059 | 2CPX041535R9999 | |
| | | 3 | 798 | 1 | ZX1060 | 2CPX041926R9999 | | ZXM1060 | 2CPX041536R9999 | |
| | | 4 | 1048 | 1 | ZX1061 | 2CPX041927R9999 | | ZXM1061 | 2CPX041537R9999 | |
| | | 5 | 1298 | 1 | ZX1062 | 2CPX041928R9999 | | ZXM1062 | 2CPX041538R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 1 | 350 | 1 | ZX1080 | 2CPX041942R9999 | | ZXM1080 | 2CPX041552R9999 | |
| | | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 20 x 5 | 320 | 1 | 350 | 1 | ZX1092 | 2CPX041954R9999 | | ZXM1092 | 2CPX041564R9999 | |
| | | 2 | 600 | 1 | ZX1093 | 2CPX041955R9999 | | ZXM1093 | 2CPX041565R9999 | |
| | | 3 | 850 | 1 | ZX1094 | 2CPX041956R9999 | | ZXM1094 | 2CPX041566R9999 | |
| | | 4 | 1100 | 1 | ZX1095 | 2CPX041957R9999 | | ZXM1095 | 2CPX041567R9999 | |
| | | 5 | 1350 | 1 | ZX1096 | 2CPX041958R9999 | | ZXM1096 | 2CPX041568R9999 | |
| 30 x 5 | 440 | 1 | 350 | 1 | ZX1098 | 2CPX041960R9999 | | ZXM1098 | 2CPX041570R9999 | |
| | | 2 | 600 | 1 | ZX1099 | 2CPX041961R9999 | | ZXM1099 | 2CPX041571R9999 | |
| | | 3 | 850 | 1 | ZX1100 | 2CPX041962R9999 | | ZXM1100 | 2CPX041572R9999 | |
| | | 4 | 1100 | 1 | ZX1101 | 2CPX041963R9999 | | ZXM1101 | 2CPX041573R9999 | |
| | | 5 | 1350 | 1 | ZX1102 | 2CPX041964R9999 | | ZXM1102 | 2CPX041574R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 20 x 5 | 320 | | 94 | 1 | ZX1182 | 2CPX042022R9999 | | - | - | - |
| 30 x 5 | 440 | | 94 | 1 | ZX1183 | 2CPX042023R9999 | | - | - | - |

# Enclosures

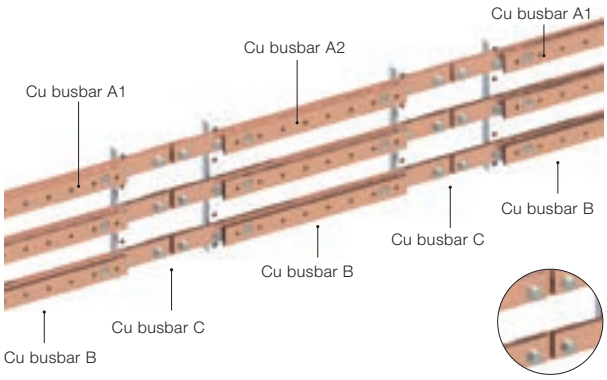
## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection for M(B)T...50+51(B)




- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including connection terminals
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | 2 | 548 | 1 | ZX1041 | 2CPX041907R9999 | | ZXM1041 | 2CPX041517R9999 | |
| | | 3 | 798 | 1 | ZX1042 | 2CPX041908R9999 | | ZXM1042 | 2CPX041518R9999 | |
| | | 4 | 1048 | 1 | ZX1043 | 2CPX041909R9999 | | ZXM1043 | 2CPX041519R9999 | |
| | | 5 | 1298 | 1 | ZX1044 | 2CPX041910R9999 | | ZXM1044 | 2CPX041520R9999 | |
| 12 x 10 | 360 | 2 | 548 | 1 | ZX1047 | 2CPX041913R9999 | | ZXM1047 | 2CPX041523R9999 | |
| | | 3 | 798 | 1 | ZX1048 | 2CPX041914R9999 | | ZXM1048 | 2CPX041524R9999 | |
| | | 4 | 1048 | 1 | ZX1049 | 2CPX041915R9999 | | ZXM1049 | 2CPX041525R9999 | |
| | | 5 | 1298 | 1 | ZX1050 | 2CPX041916R9999 | | ZXM1050 | 2CPX041526R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 12 x 5 | 250 | 2 | 600 | 1 | ZX1081 | 2CPX041943R9999 | | ZXM1081 | 2CPX041553R9999 | |
| | | 3 | 850 | 1 | ZX1082 | 2CPX041944R9999 | | ZXM1082 | 2CPX041554R9999 | |
| | | 4 | 1100 | 1 | ZX1083 | 2CPX041945R9999 | | ZXM1083 | 2CPX041555R9999 | |
| | | 5 | 1350 | 1 | ZX1084 | 2CPX041946R9999 | | ZXM1084 | 2CPX041556R9999 | |
| 12 x 10 | 360 | 2 | 600 | 1 | ZX1087 | 2CPX041949R9999 | | ZXM1087 | 2CPX041559R9999 | |
| | | 3 | 850 | 1 | ZX1088 | 2CPX041950R9999 | | ZXM1088 | 2CPX041560R9999 | |
| | | 4 | 1100 | 1 | ZX1089 | 2CPX041951R9999 | | ZXM1089 | 2CPX041561R9999 | |
| | | 5 | 1350 | 1 | ZX1090 | 2CPX041952R9999 | | ZXM1090 | 2CPX041562R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 12 x 5 | 250 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |
| 12 x 10 | 360 | | 44 | 1 | ZX1181 | 2CPX042021R9999 | | - | - | - |

# Enclosures
## Modular distribution panel system CombiLine N
## Busbars for the TriLine® cabinet connection for M(B)L...52(B)

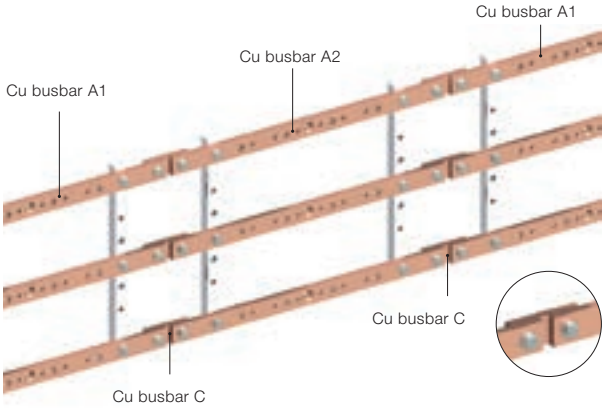



- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Cu busbars A1 prepared for the cabinet to cabinet connection right or left
- Cu busbars A2 prepared for the cabinet to cabinet connection right and left
- To assemble the size 00 fuse switch disconnectors, a second busbar B with captive nuts per module is mounted in front
- One connector C is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- To this end the busbar holders are fixed to the rear position of the bracket
- Three Cu busbars A1/A2, B and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 298 | 1 | ZX1064 | 2CPX041930R9999 | | ZXM1064 | 2CPX041540R9999 | |
| | | 2 | 548 | 1 | ZX1065 | 2CPX041931R9999 | | ZXM1065 | 2CPX041541R9999 | |
| | | 3 | 798 | 1 | ZX1066 | 2CPX041932R9999 | | ZXM1066 | 2CPX041542R9999 | |
| | | 4 (2PW+2PW) | 1048 | 1 | ZX1067 | 2CPX041933R9999 | | ZXM1067 | 2CPX041543R9999 | |
| | | 5 (3PW+2PW) | 1298 | 1 | ZX1068 | 2CPX041934R9999 | | ZXM1068 | 2CPX041544R9999 | |
| 40 x 10 | 850 | 1 | 298 | 1 | ZX1070 | 2CPX041936R9999 | | ZXM1070 | 2CPX041546R9999 | |
| | | 2 | 548 | 1 | ZX1071 | 2CPX041937R9999 | | ZXM1071 | 2CPX041547R9999 | |
| | | 3 | 767 | 1 | ZX1072 | 2CPX041938R9999 | | ZXM1072 | 2CPX041548R9999 | |
| | | 4 (2PW+2PW) | 1048 | 1 | ZX1073 | 2CPX041939R9999 | | ZXM1073 | 2CPX041549R9999 | |
| | | 5 (3PW+2PW) | 1298 | 1 | ZX1074 | 2CPX041940R9999 | | ZXM1074 | 2CPX041550R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 350 | 1 | ZX1104 | 2CPX041966R9999 | | ZXM1104 | 2CPX041576R9999 | |
| | | 2 | 600 | 1 | ZX1105 | 2CPX041967R9999 | | ZXM1105 | 2CPX041577R9999 | |
| | | 3 | 850 | 1 | ZX1106 | 2CPX041968R9999 | | ZXM1106 | 2CPX041578R9999 | |
| | | 4 (2PW+2PW) | 1100 | 1 | ZX1107 | 2CPX041969R9999 | | ZXM1107 | 2CPX041579R9999 | |
| | | 5 (3PW+2PW) | 1350 | 1 | ZX1108 | 2CPX041970R9999 | | ZXM1108 | 2CPX041580R9999 | |
| 40 x 10 | 850 | 1 | 350 | 1 | ZX1110 | 2CPX041972R9999 | | ZXM1110 | 2CPX041582R9999 | |
| | | 2 | 600 | 1 | ZX1111 | 2CPX041973R9999 | | ZXM1111 | 2CPX041583R9999 | |
| | | 3 | 850 | 1 | ZX1112 | 2CPX041974R9999 | | ZXM1112 | 2CPX041584R9999 | |
| | | 4 (2PW+2PW) | 1100 | 1 | ZX1113 | 2CPX041975R9999 | | ZXM1113 | 2CPX041585R9999 | |
| | | 5 (3PW+2PW) | 1350 | 1 | ZX1114 | 2CPX041976R9999 | | ZXM1114 | 2CPX041586R9999 | |
| **Cu busbar B busbars for mounting the 00 fuse switch disconnectors** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 150 | 1 | ZX1170 | 2CPX042342R9999 | | ZXM1170 | 2CPX042348R9999 | |
| | | 2 | 400 | 1 | ZX1171 | 2CPX042343R9999 | | ZXM1171 | 2CPX042349R9999 | |
| | | 3 | 650 | 1 | ZX1172 | 2CPX042344R9999 | | ZXM1172 | 2CPX042350R9999 | |
| 40 x 10 | 850 | 1 | 150 | 1 | ZX1176 | 2CPX042345R9999 | | ZXM1176 | 2CPX042351R9999 | |
| | | 2 | 400 | 1 | ZX1177 | 2CPX042346R9999 | | ZXM1177 | 2CPX042352R9999 | |
| | | 3 | 650 | 1 | ZX1178 | 2CPX042347R9999 | | ZXM1178 | 2CPX042353R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | | 94 | 1 | ZX1184 | 2CPX042024R9999 | | - | - | - |
| 40 x 10 | 850 | | 94 | 1 | ZX1185 | 2CPX042025R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection for M(B)L...21-300(B)



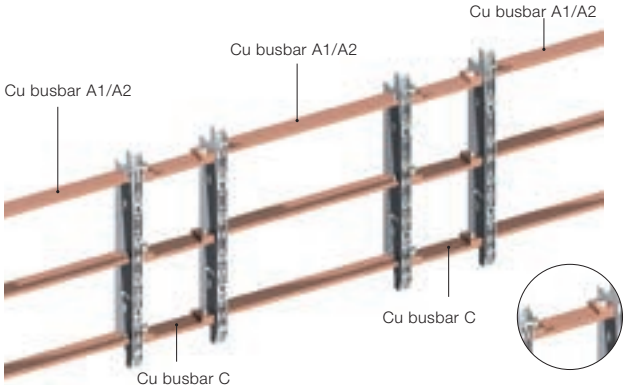

- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- To assemble size 00 fuse switch disconnectors, the busbars A1 and A2 are equipped with captive nuts
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | Pieces | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 267 | 1 | ZX1135 | 2CPX041990R9999 | | ZXM1135 | 2CPX041600R9999 | |
| | | 2 | 517 | 1 | ZX1136 | 2CPX041991R9999 | | ZXM1136 | 2CPX041601R9999 | |
| | | 3 | 767 | 1 | ZX1137 | 2CPX041992R9999 | | ZXM1137 | 2CPX041602R9999 | |
| | | 4 (2PW+2PW) | 1017 | 1 | ZX1138 | 2CPX041993R9999 | | ZXM1138 | 2CPX041603R9999 | |
| | | 5 (3PW+2PW) | 1267 | 1 | ZX1139 | 2CPX041994R9999 | | ZXM1139 | 2CPX041604R9999 | |
| 40 x 10 | 850 | 1 | 267 | 1 | ZX1141 | 2CPX041996R9999 | | ZXM1141 | 2CPX041606R9999 | |
| | | 2 | 517 | 1 | ZX1142 | 2CPX041997R9999 | | ZXM1142 | 2CPX041607R9999 | |
| | | 3 | 767 | 1 | ZX1143 | 2CPX041998R9999 | | ZXM1143 | 2CPX041608R9999 | |
| | | 4 (2PW+2PW) | 1017 | 1 | ZX1144 | 2CPX041999R9999 | | ZXM1144 | 2CPX041609R9999 | |
| | | 5 (3PW+2PW) | 1267 | 1 | ZX1145 | 2CPX042000R9999 | | ZXM1145 | 2CPX041610R9999 | |
| **Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 30 x 10 | 630 | 1 | 350 | 1 | ZX1150 | 2CPX042002R9999 | | ZXM1150 | 2CPX041612R9999 | |
| | | 2 | 600 | 1 | ZX1151 | 2CPX042003R9999 | | ZXM1151 | 2CPX041613R9999 | |
| | | 3 | 850 | 1 | ZX1152 | 2CPX042004R9999 | | ZXM1152 | 2CPX041614R9999 | |
| | | 4 (2PW+2PW) | 1100 | 1 | ZX1153 | 2CPX042005R9999 | | ZXM1153 | 2CPX041615R9999 | |
| | | 5 (3PW+2PW) | 1350 | 1 | ZX1154 | 2CPX042006R9999 | | ZXM1154 | 2CPX041616R9999 | |
| 40 x 10 | 850 | 1 | 350 | 1 | ZX1156 | 2CPX042008R9999 | | ZXM1156 | 2CPX041618R9999 | |
| | | 2 | 600 | 1 | ZX1157 | 2CPX042009R9999 | | ZXM1157 | 2CPX041619R9999 | |
| | | 3 | 850 | 1 | ZX1158 | 2CPX042010R9999 | | ZXM1158 | 2CPX041620R9999 | |
| | | 4 (2PW+2PW) | 1100 | 1 | ZX1159 | 2CPX042011R9999 | | ZXM1159 | 2CPX041621R9999 | |
| | | 5 (3PW+2PW) | 1350 | 1 | ZX1160 | 2CPX042012R9999 | | ZXM1160 | 2CPX041622R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 30 x 10 | 630 | | 94 | 1 | ZX1184 | 2CPX042024R9999 | | - | - | - |
| 40 x 10 | 850 | | 94 | 1 | ZX1185 | 2CPX042025R9999 | | - | - | - |

# Enclosures

## Modular distribution panel system CombiLine N

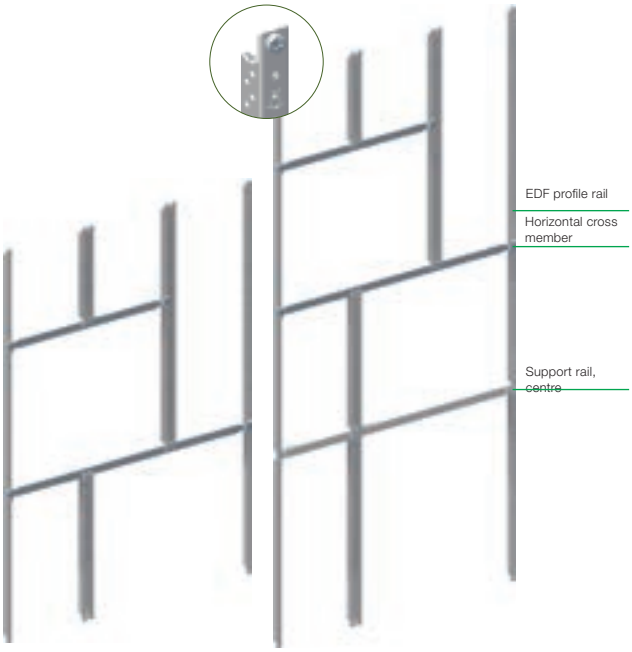
## Busbars for the TriLine® cabinet connection for M(B)L...5




- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

| Cu busbar | $I_n$ | Width | | Pieces | Flatpack Unmounted | | | Mounted Installed in the cabinet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | one | PW | mm | | Type | Ord. no. | Price | Type | Ord. no. | Price |
| **Cu busbar A1/A2, busbars for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 40 x 10 | 850 | 2 | 496 | 1 | ZX1032 | 2CPX041901R9999 | | ZXM1032 | 2CPX041511R9999 | |
| | | 3 | 746 | 1 | ZX1033 | 2CPX041902R9999 | | ZXM1033 | 2CPX041512R9999 | |
| | | 4 | 996 | 1 | ZX1034 | 2CPX041903R9999 | | ZXM1034 | 2CPX041513R9999 | |
| | | 5 | 1246 | 1 | ZX1035 | 2CPX041904R9999 | | ZXM1035 | 2CPX041514R9999 | |
| **Cu busbar A1/A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets** | | | | | | | | | | |
| 40 x 10 | 850 | 2 | 496 | 1 | ZX1032 | 2CPX041901R9999 | | ZXM1032 | 2CPX041511R9999 | |
| | | 3 | 746 | 1 | ZX1033 | 2CPX041902R9999 | | ZXM1033 | 2CPX041512R9999 | |
| | | 4 | 996 | 1 | ZX1034 | 2CPX041903R9999 | | ZXM1034 | 2CPX041513R9999 | |
| | | 5 | 1246 | 1 | ZX1035 | 2CPX041904R9999 | | ZXM1035 | 2CPX041514R9999 | |
| **Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left** | | | | | | | | | | |
| 40 x 10 | 850 | | 165 | 1 | ZX1186 | 2CPX042887R9999 | | - | - | - |

# Enclosures
## Modular distribution panel system CombiLine N
## EDF mounting frame parts



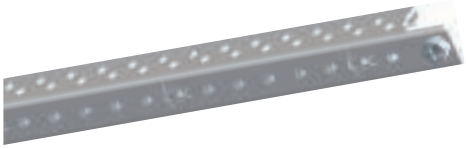

**Wall-mounting cabinet**

**Floor-standing cabinet**

### Installation options with variable EDF mounting frame using horizontal cross members

The vertical EDF profile rails are prepared for the installation of modules. A horizontal cross member will be required to connect different panel widths.

The TwinLine wall-mounting cabinets are prepared for an assembly with EDF mounting frame parts. For the TwinLine floor-standing
cabinet a center support rail and EDF-adapters are required (see chapter TwinLine).



**EDM9**

- Vertical EDF profile
- Incl. fastening screws
- For mounting modules up to 400 A*

| Description | Height GU | Height mm | Pieces | Flatpack Unmounted Type | Ord. no. | Price | Mounted Installed in the cabinet Type | Ord. no. | Price |
|---|---|---|---|---|---|---|---|---|---|
| Vertical EDF profile rail | 1 | 150 | 1 | ED7 | 2CPX041865R9999 | | EDM7 | 2CPX041455R9999 | |
| | | | 20 | ED7P20 | 2CPX041866R9999 | | | | |
| | 2 | 300 | 1 | ED8 | 2CPX039208R9999 | | EDM8 | 2CPX041456R9999 | |
| | | | 20 | ED8P20 | 2CPX062311R9999 | | | | |
| | 3 | 450 | 1 | ED9 | 2CPX039209R9999 | | EDM9 | 2CPX041457R9999 | |
| | | | 20 | ED9P20 | 2CPX062312R9999 | | | | |
| | 4 | 600 | 1 | ED10 | 2CPX039210R9999 | | EDM10 | 2CPX041458R9999 | |
| | | | 20 | ED10P20 | 2CPX062313R9999 | | | | |
| | 5 | 750 | 1 | ED11 | 2CPX039211R9999 | | EDM11 | 2CPX041459R9999 | |
| | | | 20 | ED11P20 | 2CPX062314R9999 | | | | |
| | 6 | 900 | 1 | ED12 | 2CPX039212R9999 | | EDM12 | 2CPX041460R9999 | |
| | | | 20 | ED12P20 | 2CPX062315R9999 | | | | |
| | 7 | 1050 | 1 | ED13 | 2CPX039213R9999 | | EDM13 | 2CPX041461R9999 | |
| | | | 20 | ED13P20 | 2CPX062316R9999 | | | | |
| | 8 | 1200 | 1 | ED14 | 2CPX039214R9999 | | EDM14 | 2CPX041462R9999 | |
| | | | 20 | ED14P20 | 2CPX062317R9999 | | | | |
| | 9 | 1350 | 1 | ED15 | 2CPX039215R9999 | | EDM15 | 2CPX041463R9999 | |
| | | | 20 | ED15P20 | 2CPX062318R9999 | | - | - | - |
| Vertical EDF profile rail | 12 | 1800 | 1 | ED18 | 2CPX039216R9999 | | - | - | - |
| For holding touch guard covers | | | 20 | ED18P20 | 2CPX062325R9999 | | - | - | - |
| in case of a free installation | 14 | 2100 | 1 | ED20 | 2CPX039218R9999 | | - | - | - |

* The values given refer only to the DIN EN 60439-1 (VDE 0660 500) standard



**ED112**

- Horizontal cross member for the panel separation to the top **and** bottom
- Incl. fastening screws

| Description | Width PW | Width mm | Pieces | Flatpack Unmounted Type | Flatpack Unmounted Ord. no. | Flatpack Unmounted Price | Mounted Installed in the cabinet Type | Mounted Installed in the cabinet Ord. no. | Mounted Installed in the cabinet Price |
|---|---|---|---|---|---|---|---|---|---|
| Horizontal cross member | 2 | 500 | 1 | ED112P10 | 2CPX068572R9999 | | EDM112 | 2CPX041464R9999 | |
| | 3 | 750 | 1 | ED113P10 | 2CPX068573R9999 | | EDM113 | 2CPX041465R9999 | |



**ED122**

- Horizontal cross member for the panel separation to the top **or** bottom
- Incl. fastening screws

| Description | Width PW | Width mm | Pieces | Flatpack Unmounted Type | Flatpack Unmounted Ord. no. | Flatpack Unmounted Price | Mounted Installed in the cabinet Type | Mounted Installed in the cabinet Ord. no. | Mounted Installed in the cabinet Price |
|---|---|---|---|---|---|---|---|---|---|
| Horizontal cross member | 2 | 500 | 1 | ED122P10 | 2CPX042847R9999 | | EDM122 | 2CPX042845R9999 | |
| | 3 | 750 | 1 | ED123P10 | 2CPX042848R9999 | | EDM123 | 2CPX042846R9999 | |

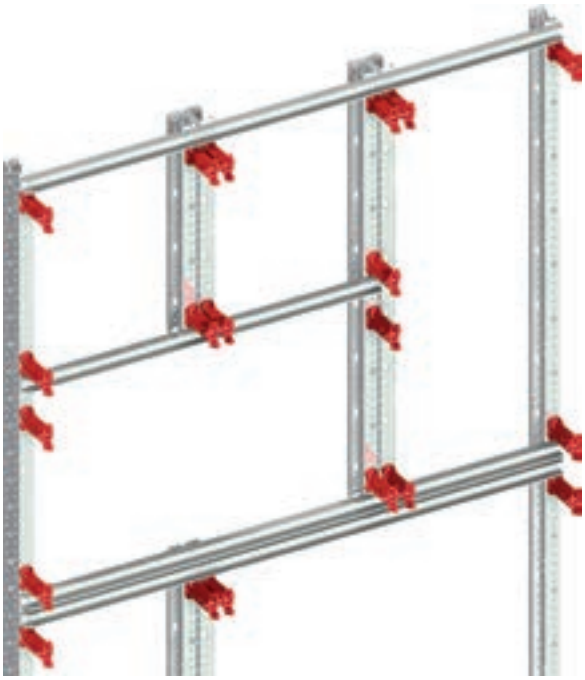


**ED403**

- EDF profile rails to stabilize DIN rails with each other
- For 3-panel wide modules always included in the scope of delivery

| Description | Height GU | Height mm | Pieces | Flatpack Unmounted Type | Flatpack Unmounted Ord. no. | Flatpack Unmounted Price | Mounted Installed in the cabinet Type | Mounted Installed in the cabinet Ord. no. | Mounted Installed in the cabinet Price |
|---|---|---|---|---|---|---|---|---|---|
| For rail mounting device modules | 2 | 152 | 1 | ED402 | 2CPX042615R9999 | | - | - | - |
| 125 mm rail spacing | 3 | 276 | 1 | ED403 | 2CPX042616R9999 | | - | - | - |
| | 4 | 401 | 1 | ED404 | 2CPX042617R9999 | | - | - | - |
| | 5 | 527 | 1 | ED405 | 2CPX042618R9999 | | - | - | - |
| For rail mounting device modules | 2 | 177 | 1 | ED412 | 2CPX042619R9999 | | - | - | - |
| 150 mm rail spacing | 3 | 327 | 1 | ED413 | 2CPX042620R9999 | | - | - | - |
| | 4 | 477 | 1 | ED414 | 2CPX042621R9999 | | - | - | - |
| | 5 | 627 | 1 | ED415 | 2CPX042622R9999 | | - | - | - |

# Enclosures
## Modular distribution panel system CombiLine N
## WR mounting frame parts



### Installation options with variable WR mounting frame using horizontal cross members

The vertical WR profile rails are prepared for the installation of modules. A horizontal cross member will be required to connect different panel widths. The WR mounting frame is used for the TwinLine floor-standing cabinet. For an assembly in the TwinLine wall-mounting cabinet, the EDF adapters of the mounting frame holder are removed.

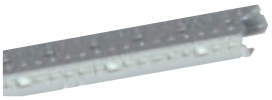


- WR mounting frame, complete
- Vertical WR profile rail with horizontal cross member
- For mounting modules up to 850 A*

**WRM281**

| Description | Width PW | mm | Pieces | Flatpack Unmounted Type | Ord. no. | Price | Mounted Installed in the cabinet Type | Ord. no. | Price |
|---|---|---|---|---|---|---|---|---|---|
| WR mounting frame | 1 | 250 | 1 | WR181 | 2CPX042858R9999 | | WRM181 | 2CPX042849R9999 | |
| For all floor-standing and switchgear cabinets | 2 | 500 | 1 | WR281 | 2CPX042859R9999 | | WRM281 | 2CPX042850R9999 | |
| from depths of 225 mm | 3 | 750 | 1 | WR381 | 2CPX042860R9999 | | WRM381 | 2CPX042851R9999 | |
| Height 12 GU, 1800 mm | 4 | 1000 | 1 | WR481 | 2CPX042861R9999 | | WRM481 | 2CPX042852R9999 | |
| WR mounting frame | 1 | 250 | 1 | WR1101 | 2CPX042862R9999 | | WRM1101 | 2CPX042853R9999 | |
| For switchgear cabinets | 2 | 500 | 1 | WR2101 | 2CPX042863R9999 | | WRM2101 | 2CPX042854R9999 | |
| from depths of 325 mm | 3 | 750 | 1 | WR3101 | 2CPX042864R9999 | | WRM3101 | 2CPX042855R9999 | |
| Height 14 GU, 2100 mm | 4 | 1000 | 1 | WR4101 | 2CPX042865R9999 | | WRM4101 | 2CPX042856R9999 | |

* The values given refer only to the DIN EN 60439-1 (VDE 0660 500) standard



**ZW213**

- Vertical WR profile rail
- To compensate the height when using horizontal cross members

| Description | Height GU | mm | Pieces | Flatpack Unmounted Type | Ord. no. | Price | Mounted Installed in the cabinet Type | Ord. no. | Price |
|---|---|---|---|---|---|---|---|---|---|
| Vertical WR profile rail | 1 | 150 | 1 | ZW367 | 2CPX041850R9999 | | ZWM367 | 2CPX041432R9999 | |
| | 2 | 300 | 1 | ZW368 | 2CPX041851R9999 | | ZWM368 | 2CPX041433R9999 | |
| | 3 | 450 | 1 | ZW369 | 2CPX041852R9999 | | ZWM369 | 2CPX041434R9999 | |
| | 4 | 600 | 1 | ZW370 | 2CPX041853R9999 | | ZWM370 | 2CPX041435R9999 | |
| | 5 | 750 | 1 | ZW371 | 2CPX041854R9999 | | ZWM371 | 2CPX041436R9999 | |
| | 6 | 900 | 1 | ZW372 | 2CPX041855R9999 | | ZWM372 | 2CPX041437R9999 | |
| | 7 | 1050 | 1 | ZW373 | 2CPX041856R9999 | | ZWM373 | 2CPX041438R9999 | |
| | 8 | 1200 | 1 | ZW374 | 2CPX041857R9999 | | ZWM374 | 2CPX041439R9999 | |
| | 9 | 1350 | 1 | ZW375 | 2CPX041858R9999 | | ZWM375 | 2CPX041440R9999 | |
| | 10 | 1500 | 1 | ZW376 | 2CPX041859R9999 | | ZWM376 | 2CPX041441R9999 | |
| | 11 | 1650 | 1 | ZW377 | 2CPX041860R9999 | | ZWM377 | 2CPX041442R9999 | |
| | 12 | 1800 | 1 | ZW213 | 2CPX060141R9999 | | ZWM213 | 2CPX041430R9999 | |
| | | | 10 | ZW213P10 | 2CPX062641R9999 | | - | - | - |
| | | | 300 | ZW213P300 | 2CPX062714R9999 | | - | - | - |
| | 13 | 1950 | 1 | ZW378 | 2CPX041861R9999 | | ZWM378 | 2CPX041443R9999 | |
| | 14 | 2100 | 1 | ZW214 | 2CPX060142R9999 | | ZWM214 | 2CPX041431R9999 | |
| | | | 10 | ZW214P10 | 2CPX062642R9999 | | - | - | - |



**ZW165**

- Horizontal cross member for the panel separation
- Incl. fastening screws
- Two cross members are required when subdividing panels upwards and downwards

| Description | Width PW | mm | Pieces | Flatpack Unmounted Type | Ord. no. | Price | Mounted Installed in the cabinet Type | Ord. no. | Price |
|---|---|---|---|---|---|---|---|---|---|
| Horizontal cross member | 1 | 250 | 1 | ZW164 | 2CPX042866R9999 | | ZWM164 | 2CPX042857R9999 | |
| | | | 10 | ZW164P10 | 2CPX062710R9999 | | | | |
| | 2 | 500 | 1 | ZW165 | 2CPX041862R9999 | | ZWM165 | 2CPX041444R9999 | |
| | | | 10 | ZW165P10 | 2CPX062711R9999 | | | | |
| | 3 | 750 | 1 | ZW166 | 2CPX041863R9999 | | ZWM166 | 2CPX041445R9999 | |
| | | | 10 | ZW166P10 | 2CPX062712R9999 | | | | |
| | 4 | 1000 | 1 | ZW167 | 2CPX041864R9999 | | ZWM167 | 2CPX041446R9999 | |
| | | | 10 | ZW167P10 | 2CPX062713R9999 | | | | |

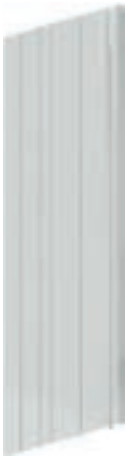


**ZW209**

- As horizontal cross member in the WR mounting frame

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Horizontal WR cross member | 1 | 186 | 1 | ZW209 | 2CPX039207R9999 | | ZWM209 | 2CPX042097R9999 | |
| | 2 | 436 | 1 | ZW210 | 2CPX060138R9999 | | ZWM210 | 2CPX042098R9999 | |
| | 3 | 686 | 1 | ZW211 | 2CPX060139R9999 | | ZWM211 | 2CPX042099R9999 | |
| | 4 | 936 | 1 | ZW212 | 2CPX060140R9999 | | ZWM212 | 2CPX042100R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Plastic partitions



ZX69

| Article | Height GU | Height OH | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| Partitions vertical, plastic | 3 | 00 | 1 | ZX69 | 2CPX039069R9999 | |
| Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module. Colour similar to RAL 7035. | 4 | 0 | 1 | ZX70 | 2CPX039070R9999 | |
| | 5 | 1 | 1 | ZX71 | 2CPX039071R9999 | |
| | 6 | 2 | 1 | ZX72 | 2CPX039072R9999 | |
| | 7 | 3 | 1 | ZX73 | 2CPX039073R9999 | |
| | 8 | 4 | 1 | ZX74 | 2CPX039074R9999 | |
| | 9 | 5 | 1 | ZX75 | 2CPX039075R9999 | |



ZX86

| Article | Width PW | Width mm | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| Horizontal partitions, plastic | 1 | 250 | 1 | ZX86 | 2CPX039086R9999 | |
| Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module. Colour similar to RAL 7035. | 2 | 500 | 1 | ZX87 | 2CPX039087R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Sheet steel partitions



ZX820

| Article | Height GU | Height OH | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| **For TwinLine-G cabinets** | | | | | | |
| Vertical partitions, sheet steel | 3 | 00 | 1 | ZX810 | 2CPX010675R9999 | |
| Not arc-resistant, sheathing against the | 4 | 0 | 1 | ZX811 | 2CPX010676R9999 | |
| next module, distribution board panel, meter panel; | 5 | 1 | 1 | ZX812 | 2CPX010677R9999 | |
| partition is riveted to the WR/EDF profile; the partition is | 6 | 2 | 1 | ZX813 | 2CPX010678R9999 | |
| prepared for the fixing position 0* | 7 | 3 | 1 | ZX814 | 2CPX010679R9999 | |
| . | 8 | 4 | 1 | ZX815 | 2CPX010680R9999 | |
| | 9 | 5 | 1 | ZX816 | 2CPX010681R9999 | |
| | 12 | 8 | 1 | ZX817 | 2CPX010682R9999 | |
| **For TwinLine-L cabinets** | | | | | | |
| Vertical partitions, sheet steel | 3 | 00 | 1 | ZX820 | 2CPX010683R9999 | |
| Not arc-resistant, sheathing against the | 4 | 0 | 1 | ZX821 | 2CPX010684R9999 | |
| next module, distribution board panel, meter panel; | 5 | 1 | 1 | ZX822 | 2CPX010685R9999 | |
| partition is riveted to the WR/EDF profile; the partition is | 6 | 2 | 1 | ZX823 | 2CPX010686R9999 | |
| prepared for the fixing position 0* | 7 | 3 | 1 | ZX824 | 2CPX010687R9999 | |
| . | 8 | 4 | 1 | ZX825 | 2CPX010688R9999 | |
| | 9 | 5 | 1 | ZX826 | 2CPX010689R9999 | |
| | 12 | 8 | 1 | ZX827 | 2CPX010690R9999 | |
| **For TwinLine-W cabinets** | | | | | | |
| Vertical partitions, sheet steel | 3 | 00 | 1 | ZX830 | 2CPX010691R9999 | |
| Not arc-resistant, sheathing against the | 4 | 0 | 1 | ZX831 | 2CPX010692R9999 | |
| next module, distribution board panel, meter panel; | 5 | 1 | 1 | ZX832 | 2CPX010693R9999 | |
| partition is riveted to the WR/EDF profile; the partition is | 6 | 2 | 1 | ZX833 | 2CPX010694R9999 | |
| prepared for the fixing position 0* | 7 | 3 | 1 | ZX834 | 2CPX010695R9999 | |
| . | 8 | 4 | 1 | ZX835 | 2CPX010696R9999 | |
| | 9 | 5 | 1 | ZX836 | 2CPX010697R9999 | |
| | 12 | 8 | 1 | ZX837 | 2CPX010698R9999 | |



ZX840

| Article | Width PW | Width mm | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| **For TwinLine-G, TwinLine-L and TwinLine-W-cabinets** | | | | | | |
| Horizontal partitions, sheet steel | 1 | 250 | 1 | ZX840 | 2CPX010699R9999 | |
| Not arc-resistant, sheathing against the next module, | 2 | 500 | 1 | ZX841 | 2CPX010700R9999 | |
| distribution board panel, meter panel; Using an additional | 3 | 750 | 1 | ZX842 | 2CPX010701R9999 | |
| holder rail, the partition is screwed onto the WR/EDF | | | | | | |
| profile; the partition is prepared for the fixing position 0* | | | | | | |

* See cross sections in the Technical Specifications, chapter TwinLine

# Enclosures
## Modular distribution panel system CombiLine N
## Sheet steel partitions for EDF mounting frame



ZX469

| Article | Height GU | Height OH | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| **For U, A, B and HS cabinets** | | | | | | |
| Vertical partitions, sheet steel | 3 | 00 | 1 | ZX469 | 2CPX039541R9999 | |
| Not arc-resistant, sheathing against the next module, | 4 | 0 | 1 | ZX470 | 2CPX039542R9999 | |
| distribution board panel, meter panel | 5 | 1 | 1 | ZX471 | 2CPX039543R9999 | |
| Partition is riveted to the EDF mounting frame | 6 | 2 | 1 | ZX472 | 2CPX039544R9999 | |
| | 7 | 3 | 1 | ZX473 | 2CPX039545R9999 | |
| | 8 | 4 | 1 | ZX474 | 2CPX039546R9999 | |
| | 9 | 5 | 1 | ZX475 | 2CPX039547R9999 | |
| **For H cabinets** | | | | | | |
| Vertical partitions, sheet steel | 3 | 00 | 1 | ZX479 | 2CPX039549R9999 | |
| Not arc-resistant, sheathing against the next module, | 4 | 0 | 1 | ZX480 | 2CPX039550R9999 | |
| distribution board panel against distribution board panel | 5 | 1 | 1 | ZX481 | 2CPX039551R9999 | |
| Partition is riveted to the EDF mounting frame | 6 | 2 | 1 | ZX482 | 2CPX039552R9999 | |
| | 7 | 3 | 1 | ZX483 | 2CPX039553R9999 | |
| | 8 | 4 | 1 | ZX484 | 2CPX039554R9999 | |
| | 9 | 5 | 1 | ZX485 | 2CPX039555R9999 | |



ZX502

| Article | Width PW | Width mm | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|
| **For U, A, B, HS And FS cabinets** | | | | | | |
| Horizontal sheet steel partitions | 1 | 250 | 1 | ZX502 | 2CPX039567R9999 | |
| Not arc-resistant, when used together with | 2 | 500 | 1 | ZX503 | 2CPX039568R9999 | |
| the EDF mounting frame, it is | | | | | | |
| inserted between the cover holders | | | | | | |
| **For H cabinets** | | | | | | |
| Horizontal sheet steel partitions | 1 | 250 | 1 | ZX497 | 2CPX039563R9999 | |
| Not arc-resistant, when used together with | 2 | 500 | 1 | ZX498 | 2CPX039564R9999 | |
| the EDF mounting frame, it is | | | | | | |
| inserted between the cover holders | | | | | | |

# Enclosures
## Modular distribution panel system CombiLine N
## Sheet steel partitions for WR mounting frame



RZ151

| Article | Height GU | Height OH | Depth mm | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|---|
| **For TriLine® cabinets** | | | | | | | |
| Vertical partitions, sheet steel | 12 | 8 | 425 | 1 | RZ151 | 2CPX046561R9999 | |
| Not arc-resistant, | 14 | 10 | 425 | 1 | RZ155 | 2CPX046565R9999 | |
| WR mounting frame against WR mounting frame | 12 | 8 | 625 | 1 | RZ152 | 2CPX046562R9999 | |
| Partition is riveted to the WR mounting frame | 14 | 10 | 625 | 1 | RZ156 | 2CPX046566R9999 | |



RZ161

| Article | Width PW | Width mm | Depth mm | Pieces | Order details Type | Order details Order code | Price |
|---|---|---|---|---|---|---|---|
| **For C series cabinets** | | | | | | | |
| Horizontal sheet steel partitions | 1 | 250 | 425 | 1 | RZ161 | 2CPX046571R9999 | |
| Not arc-resistant with additional fastening profile | 2 | 500 | 425 | 1 | RZ162 | 2CPX046572R9999 | |
| for an assembly to the WR mounting frame | 3 | 750 | 425 | 1 | RZ163 | 2CPX046573R9999 | |
| | 1 | 250 | 625 | 1 | RZ164 | 2CPX046574R9999 | |
| | 2 | 500 | 625 | 1 | RZ165 | 2CPX046575R9999 | |
| | 3 | 750 | 625 | 1 | RZ166 | 2CPX046576R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## General accessories

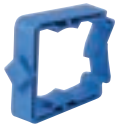


ZX66P4

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Device support connector | 4 | ZX66P4 | 2CPX062562R9999 | |
| For the connection of EDF and WR mounting frames | 50 | ZX66P50 | 2CPX068614R9999 | |



ED44P10



ED45P10

| | | | | |
|---|---|---|---|---|
| Wire holder | 10 | ED44P10 | 2CPX062335R9999 | |
| For routing of wires, installation depth 28.5 mm, to be inserted into the DIN rail | 50 | ED44P50 | 2CPX062308R9999 | |
| from the rear. | 1000 | ED44P1000 | 2CPX062703R9999 | |
| Wire holder | 10 | ED45P10 | 2CPX062336R9999 | |
| For routing of wires or for holding a plastic tube∅ 38 mm, installation depth | 50 | ED45P50 | 2CPX062310R9999 | |
| 55 mm, to be inserted into the DIN rail from the rear | 1000 | ED45P1000 | 2CPX062704R9999 | |



ED59P10

| | | | | |
|---|---|---|---|---|
| DIN rail adapter | 10 | ED59P10 | 2CPX062339R9999 | |
| For ED44 or ED45. Snap onto the DIN rail from the front | | | | |



ED42P10



ED43P10

| | | | | |
|---|---|---|---|---|
| Console for wire holder ED44 or ED45 | 10 | ED42P10 | 2CPX062333R9999 | |
| To be inserted into the DIN rail from the rear. | | | | |
| Console for wire holder ED44 or ED45 | 10 | ED43P10 | 2CPX062334R9999 | |
| Snap onto the DIN rail from the front. | | | | |



ED47

| | | | | |
|---|---|---|---|---|
| Cover | 1 | ED47 | 2CPX039309R9999 | |
| For visual screening of wiring routed in the wire holders ED44 and ED45, 1 m long. | | | | |



ZA1P5

| | | | | |
|---|---|---|---|---|
| Slot covers | 5 | ZA1P5 | 2CPX062384R9999 | |
| For 12 space units, break-off type, colour RAL 7035 | 50 | ZA1P50 | 2CPX062378R9999 | |
| By the metre | 1 | ZA2 | 2CPX038231R9999 | |
| Colour RAL 7035 | 20 | ZA2P20 | 2CPX062379R9999 | |



ZA122

| | | | | |
|---|---|---|---|---|
| Cleaner for covers | 1 | ZA122 | 2CPX038293R9999 | |
| Spray dispenser, 500 ml | | | | |



ZA8

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Labelling strips** | | | | |
| 20 mm, self-adhesive, 1 panel wide | 1 | ZA8 | 2CPX060200R9999 | |
| | 5 | ZA8P5 | 2CPX062598R9999 | |
| | 40 | ZA8P40 | | |
| 20 mm, self-adhesive, 2 panel wide | 1 | ZA9 | 2CPX060201R9999 | |
| | 5 | ZA9P5 | 2CPX062599R9999 | |
| | 50 | ZA9P50 | | |
| 20 mm, self-adhesive, 3 panel wide | 1 | ZA7 | 2CPX060004R9999 | |
| | 5 | ZA7P5 | 2CPX062597R9999 | |
| 20 mm, self-adhesive, by the metre | 1 | ZA10 | 2CPX038241R9999 | |
| | 10 | ZA10P10 | 2CPX062706R9999 | |
| 20 mm, self-adhesive with additional transparent film, by the metre | 1 | ZA11 | 2CPX038230R9999 | |
| | 10 | ZA11P10 | 2CPX062707R9999 | |
| 16 mm, self-adhesive, by the metre | 1 | ZA12 | 2CPX038242R9999 | |
| | 10 | ZA12P10 | 2CPX062708R9999 | |



ZA71

| | | | | |
|---|---|---|---|---|
| Labelling system for busbars<br>L1, L2, L3, N, PE,<br>1 sheet = 120 different stickers | 1 | ZA71 | 2CPX038458R9999 | |



ZA27

| | | | | |
|---|---|---|---|---|
| Labelling system<br>Self-adhesive, for<br>labelling by hand or by machine, consisting of:<br>1 sheet with 10 strips | 1 | ZA27 | 2CPX038495R9999 | |



ZA73

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For distribution board panels up to 6 GU | 1 | ZA73 | 2CPX038497R9999 | |



ZA74

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For distribution board panels up to 9 GU | 1 | ZA74 | 2CPX038498R9999 | |



ZA78

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For 8 x 12 SU | 1 | ZA78 | 2CPX031569R9999 | |



ZA79

| | | | | |
|---|---|---|---|---|
| Legend for 72 devices SU | 1 | ZA79 | 2CPX031570R9999 | |

# Enclosures
## Modular distribution panel system CombiLine N
## Connection terminals for Cu busbars


ZK79


ZK81


ZK150


ZK178


ZK87


ZK157


ZK154


ZK156


ZK83


ZK152


ZK891P4


ZK86


ZK302


ZK75

| Article | Cu busbars Dimensions in mm | Connection Cross section in mm² | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| Connection terminals | 5 | 1.5 - 16 | 1 | ZK79 | 2CPX064879R9999 | |
| To snap onto Cu busbars | | | 4 | ZK79P4 | 2CPX062421R9999 | |
| with holding spring | | | 5 | ZK79P5 | 2CPX062631R9999 | |
| | | | 50 | ZK79P50 | 2CPX062429R9999 | |
| | 5 | 4 - 35 | 1 | ZK81 | 2CPX064881R9999 | |
| | | | 4 | ZK81P4 | 2CPX062422R9999 | |
| | | | 5 | ZK81P5 | 2CPX062632R9999 | |
| | | | 50 | ZK81P50 | 2CPX062431R9999 | |
| | 5 | 2.5 - 50 | 1 | ZK150 | 2CPX064860R9999 | |
| | | | 4 | ZK150P4 | 2CPX062427R9999 | |
| | | | 5 | ZK150P5 | 2CPX062633R9999 | |
| | | | 50 | ZK150P50 | 2CPX062432R9999 | |
| | 5 | 16 - 70 | 1 | ZK178 | 2CPX064978R9999 | |
| | | | 50 | ZK178P50 | 2CPX062622R9999 | |
| | 5 | 16 - 120 | 1 | ZK157 | 2CPX064867R9999 | |
| | | | 50 | ZK157P50 | 2CPX062437R9999 | |
| | 10 | 1.5 - 16 | 1 | ZK87 | 2CPX064887R9999 | |
| | | | 4 | ZK87P4 | 2CPX062424R9999 | |
| | | | 50 | ZK87P50 | 2CPX062430R9999 | |
| | 10 | 16 - 70 | 1 | ZK156 | 2CPX064866R9999 | |
| | | | 50 | ZK156P50 | 2CPX062438R9999 | |
| | 10 | 16 - 120 | 1 | ZK154 | 2CPX064864R9999 | |
| | | | 50 | ZK154P50 | 2CPX062435R9999 | |
| Connection terminals with insertion element | 12 x 5 | 16 - 95 | 1 | ZK83 | 2CPX064883R9999 | |
| For an assembly from the front | 12 x 10 | 16 - 70 | 4 | ZK83P4 | 2CPX062423R9999 | |
| | | | 5 | ZK83P5 | 2CPX062655R9999 | |
| | | | 50 | ZK83P50 | 2CPX062433R9999 | |
| | 30 x 5 | 50 - 120 | 1 | ZK152 | 2CPX064862R9999 | |
| | 30 x 10 | 50 - 120 | 20 | ZK152P20 | 2CPX062444R9999 | |
| Frame terminals to be slid onto the | 12 x 5 | 16 - 150 | 4 | ZK891P4 | 2CPX062626R9999 | |
| Cu busbars | 12 x 10 | 16 - 150 | | | | |
| | 12 x 5 | 35 - 185 | 1 | ZK86 | 2CPX064886R9999 | |
| | 12 x 10 | 35 - 120 | 20 | ZK86P20 | 2CPX062434R9999 | |
| On bar terminal | 5 / 10 | 10 - 95 | 1 | ZK302 | 2CPX062645R9999 | |
| For an assembly to the Cu busbar | | | 20 | ZK302P20 | 2CPX062648R9999 | |
| | 5 / 10 | 16 - 150 | 1 | ZK303 | 2CPX062646R9999 | |
| | | | 20 | ZK303P20 | 2CPX062649R9999 | |
| | 5 / 10 | 35 - 240 | 1 | ZK304 | 2CPX062647R9999 | |
| | | | 20 | ZK304P20 | 2CPX062650R9999 | |
| Phase busbar connection terminal | | 25 | 1 | ZK75 | 2CPX038220R9999 | |
| for the connection with insulator cap | | | | | | |

> For the technical specifications of connection terminals, see Chapter Busbar systems

# Enclosures
## Modular distribution panel system CombiLine N
## Assembly table

**The innovative assembly table MT 200**

This assembly table is specially designed for assembling the CombiLine distribution panel system. Using this assembly table, you may set up between 1 and 6 panel wide WR and EDF frames up to a height of 14 grid units. Particular care has been placed in safety since the frames are safely attachedu-sing frame holders from the TwinLine series which are secured by a holt.

A tilting device allows for vertical to horizontal displacement by 90° approximately.

**Advantages at a glance:**

- Suitable for WR and EDF mounting frames
- For structures up to 6 panels wide
- Usable for heights of up to 14 grid units
- High safety through assembly using frame holders
- Tilting device of up to 90°



**Prices available upon requ**

# Enclosures
## Distribution panel system – System parts
## DIN rails and accessories



ED1

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **DIN rail 35 x 15 mm** | | | | | |
| **Width rail 1; for the assembly to the mounting frame** | | | | | |
| For EDF and WR mounting frame, with special hole grid pattern for wire holder ED44/ED45 | | | | | |
| 1 panel wide, length 244 mm | M(B)K...12 / M(B)G1... | 1 | ED1 | 2CPX039381R9999 | |
| | M(B)G41.../ M(B)A160ALA | 30 | ED1P30 | 2CPX062319R9999 | |
| 2 panel wide, length 494 mm | M(B)U270 | 1 | ED2 | 2CPX039382R9999 | |
| | M(B)G2... / M(B)G42... | 30 | ED2P30 | 2CPX062320R9999 | |
| 3 panel wide, length 744 mm | M(B)U370 | 1 | ED3 | 2CPX039383R9999 | |
| | M(B)G3... / M(B)G43... | 30 | ED3P30 | 2CPX062321R9999 | |
| 4 panel wide, length 994 mm | – | 1 | ED4 | 2CPX039384R9999 | |
| | | 30 | ED4P30 | | |
| By the metre, length 2000 mm | – | 1 | ED6 | 2CPX039386R9999 | |
| | | 10 | ED6P10 | 2CPX062705R9999 | |



ED51

| | | | | | |
|---|---|---|---|---|---|
| **DIN rail 35 x 15 mm** | | | | | |
| **Width rail 2; for the assembly between the mounting frame** | | | | | |
| 1 panel wide, length 188 mm | M(B)V1.../ M(B)K1... | 1 | ED51 | 2CPX039251R9999 | |
| | M(B)N1... | 30 | ED51P30 | 2CPX062322R9999 | |
| 2 panel wide, length 438 mm | M(B)V2.../ M(B)K2... | 1 | ED52 | 2CPX039252R9999 | |
| | M(B)K...13 / M(B)C2...HS M(B)N2... | 30 | ED52P30 | 2CPX062323R9999 | |
| 3 panel wide, length 688 mm | M(B)K3... | 1 | ED53 | 2CPX039253R9999 | |
| | M(B)C3..HS / M(B)N3... | 30 | ED53P30 | 2CPX062324R9999 | |
| 4 panel wide, length 938 mm | - | 1 | ED54 | 2CPX039254R9999 | |
| DiN rail 35 x 15 mm For terminal modules, vertical, length 591 mm, module height 600 mm/4 GU | M(B)K...14 | 1 | ED74 | 2CPX042185R9999 | |



ZX21

| | | | | | |
|---|---|---|---|---|---|
| **DIN rail 35 x 7.5 mm** | | | | | |
| For the assembly to the mounting frame | | | | | |
| 1 panel wide, length 244 mm | M(B)K1...K | 1 | ZX21 | 2CPX039021R9999 | |
| | | 30 | ZX21P30 | 2CPX062554R9999 | |
| 2 panel wide, length 494 mm | M(B)K2...K | 1 | ZX22 | 2CPX039022R9999 | |
| | | 30 | ZX22P30 | 2CPX062555R9999 | |



ZX371

| | | | | | |
|---|---|---|---|---|---|
| **DIN rail 35 x 7.5 mm** | | | | | |
| For the assembly between the mounting frame | | | | | |
| 1 panel wide, length 188 mm | M(B)K1...K | 1 | ZX371 | 2CPX068076R9999 | |
| 2 panel wide, length 438 mm | - | 1 | ZX389 | 2CPX068190R9999 | |



ZK90P2

| | | | | | |
|---|---|---|---|---|---|
| Insulator For DIN rails 35 x 7.5 mm and 35 x 15 mm with fastening material | M(B)K...K | 2 | ZK90P2 | 2CPX062426R9999 | |
| | | 100 | ZK90P100 | 2CPX068613R9999 | |



ZX372P2

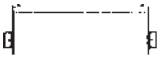
| | | | | | |
|---|---|---|---|---|---|
| Mounting bracket For ZK90P2 | M(B)K1...K | 2 | ZX372P2 | 2CPX062544R9999 | |

**Schematic diagram of the width rail for the EDF or WR mounting frame**

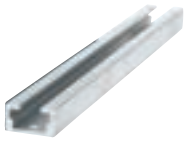
**Width rail 1**
for the assembly to the mounting frame



**Width rail 2**
For the assembly between the mounting frame



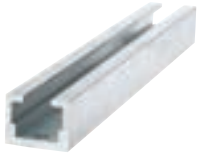
# Enclosures
## Distribution panel system – System parts
## Width rails for the EDF or WR mounting frame



ZW223



ZW228



ZW233



ZW248



ZK143

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Aluminium profile, profile no. 1** | | | | |
| 25 x 14 mm, fastening hole ∅ 6.2 mm | | | | |
| **Width rail 1; assembly to the mounting frame** | | | | |
| 1 panel wide, length 244 mm | 1 | ZW11 | 2CPX039411R9999 | |
| 2 panel wide, length 494 mm | 1 | ZW12 | 2CPX039412R9999 | |
| 3 panel wide, length 744 mm | 1 | ZW13 | 2CPX039413R9999 | |
| 4 panel wide, length 994 mm | 1 | ZW14 | 2CPX039414R9999 | |
| **Width rail 2; assembly between the mounting frame** | | | | |
| 1 panel wide, length 186 mm | 1 | ZW223 | 2CPX060323R9999 | |
| 2 panel wide, length 436 mm | 1 | ZW224 | 2CPX060324R9999 | |
| 3 panel wide, length 686 mm | 1 | ZW225 | 2CPX060325R9999 | |
| **Aluminium profile, profile no. 2** | | | | |
| 25 x 20 mm, fastening hole ∅ 6.2 mm | | | | |
| **Width rail 1; assembly to the mounting frame** | | | | |
| 3 panel wide, length 744 mm | 1 | ZW216 | 2CPX060144R9999 | |
| 4 panel wide, length 994 mm | 1 | ZW217 | 2CPX060145R9999 | |
| **Width rail 2; assembly between the mounting frame** | | | | |
| 1 panel wide, length 186 mm | 1 | ZW228 | 2CPX060328R9999 | |
| 2 panel wide, length 436 mm | 1 | ZW229 | 2CPX060329R9999 | |
| 3 panel wide, length 686 mm | 1 | ZW230 | 2CPX060330R9999 | |
| 4 panel wide, length 936 mm | 1 | ZW231 | 2CPX060331R9999 | |
| **Aluminium profile, profile no. 3** | | | | |
| 32 x 25 mm, fastening hole ∅ 8.2 mm | | | | |
| **Width rail 1; assembly to the mounting frame** | | | | |
| 1 panel wide, length 244 mm | 1 | ZW16 | 2CPX039416R9999 | |
| 2 panel wide, length 494 mm | 1 | ZW17 | 2CPX039417R9999 | |
| 3 panel wide, length 744 mm | 1 | ZW18 | 2CPX039418R9999 | |
| 4 panel wide, length 994 mm | 1 | ZW19 | 2CPX039419R9999 | |
| **Width rail 2; assembly between the mounting frame** | | | | |
| 1 panel wide, length 186 mm | 1 | ZW233 | 2CPX060333R9999 | |
| 2 panel wide, length 436 mm | 1 | ZW234 | 2CPX060334R9999 | |
| 3 panel wide, length 686 mm | 1 | ZW235 | 2CPX060335R9999 | |
| 4 panel wide, length 936 mm | 1 | ZW236 | 2CPX060336R9999 | |
| **Cable fastening rail, profile no. 10** | | | | |
| 35 x 19 mm, galvanised sheet steel, fastening hole ∅ 6.2 mm | | | | |
| **Width rail 1; assembly to the mounting frame** | | | | |
| 1 panel wide, length 244 mm | 1 | ZW219 | 2CPX060198R9999 | |
| 2 panel wide, length 494 mm | 1 | ZW220 | 2CPX060146R9999 | |
| 3 panel wide, length 744 mm | 1 | ZW221 | 2CPX060147R9999 | |
| 4 panel wide, length 994 mm | 1 | ZW222 | 2CPX060148R9999 | |
| **Width rail 2; assembly between the mounting frame** | | | | |
| 1 panel wide, length 186 mm | 1 | ZW248 | 2CPX060199R9999 | |
| 2 panel wide, length 436 mm | 1 | ZW249 | 2CPX060349R9999 | |
| 3 panel wide, length 686 mm | 1 | ZW250 | 2CPX060350R9999 | |
| 4 panel wide, length 936 mm | 1 | ZW251 | 2CPX060351R9999 | |
| **Cable fastening clamp** | | | | |
| for cable fastening rail, no. 10 | | | | |
| From 22 to 28 mm | 10 | ZK143P10 | 2CPX062728R9999 | |
| From 40 to 46 mm | 10 | ZK144P10 | 2CPX062729R9999 | |
| From 64 to 70 mm | 10 | ZK145P10 | 2CPX062730R9999 | |

# Enclosures
## Distribution panel system – System parts
## Profile rails and mounting brackets



ZW395



ZW396



ZX343



ZX334



ZW382P4



ZX321LR



ZW389LR



ZX342



ZW349



ZW64

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Cross member 3 panel wide*<br>Busbar holder<br>fixed position | M(B)T350(B) / M(B)<br>T351(B)<br>M(B)H350(B) / M(B)<br>H351(B)<br>M(B)R302(B) | 1 | ZW395 | 2CPX041136R9999 | |
| Cross member 3 panel wide*<br>Busbar holder position<br>may be changed if necessary | M(B)R303<br>M(B)S324<br>M(B)S327 | 1 | ZW396 | 2CPX041137R9999 | |
| **Mounting bracket** | | | | | |
| For the busbar modules S700 and S750<br>For the EDF and WR mounting frame | M(B)H...50 | 1 | ZX343 | 2CPX064152R9999 | |
| For cable connection modules<br>To lower DIN rails<br>For the EDF and WR mounting frame | M(B)V...80<br>M(B)V...81 | 1 | ZX334 | 2CPX064166R9999 | |
| For the busbar module device 100 mm<br>2-level adjustment<br>For the EDF and WR mounting frame | M(B)L...52 | 4 | ZW382P4 | 2CPX062628R9999 | |
| For the busbar module 45° inclined<br>For the EDF and WR mounting frame | M(B)S...28 | 1 | ZX321LR | 2CPX064160R9999 | |
| For the busbar modules 40/60 mm<br>When using ZB5/ZX151<br>For the WR mounting frame | M(B)S...24<br>M(B)S...27 | 1 | ZW389LR | 2CPX062635R9999 | |
| For the busbar holder ZX520<br>For the WR mounting frame | - | 1 | ZX342 | 2CPX062661R9999 | |
| For the busbar module device 185 mm<br>For the WR mounting frame | ML100 - ML300<br>ML218 - ML33B | 1<br>10 | ZW349<br>ZW349P10 | 2CPX067951R9999<br>2CPX062485R9999 | |
| For fastening horizontal profiles to the WR frame<br>with fastening material | WR...8<br>WR...10 | 1<br>40 | ZW64<br>ZW64P40 | 2CPX039464R9999<br>2CPX062475R9999 | |

# Enclosures
## Distribution panel system – System parts
## Deep-mounting bracket for the EDF and WR mounting frame


ZW39P2


ZW59P2


ZW79P2


ZW259P2


ED33P2


ZW60P2


ZW142P2

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Deep-mounting bracket*, adjustable range 42 mm<br>The installation depth between the deep-mounting bracket and the cover is 83-125 mm*2<br>For the EDF and WR profile<br>Stepless assembly ⧈⏚ | M(B)K106 to M(B)K310<br>M(B)K112 to M(B)U314 | 2<br>100 | ZW39P2<br>ZW39P100 | 2CPX062681R9999<br>2CPX062715R9999 | |
| Deep-mounting bracket*, adjustable range 71 mm<br>The installation depth between the deep-mounting bracket and the cover is 106-153 mm*2<br>For the EDF and WR profile<br>Stepless assembly ⧈⏚ | M(B)K107 to M(B)K310<br>M(B)M111 to M(B)M315<br>M(B)F183 to M(B)F383 | 2<br>100 | ZW59P2<br>ZW59P100 | 2CPX062660R9999<br>2CPX062716R9999 | |
| Deep-mounting bracket*, adjustable range 107 mm<br>The installation depth between the deep-mounting bracket and the cover is 142-190 mm*2<br>For the EDF and WR profile<br>Stepless assembly ⧈⏚ | M(B)F184 to M(B)F384 | 2<br>100 | ZW79P2<br>ZW79P100 | 2CPX062688R9999<br>2CPX062717R9999 | |
| Deep-mounting bracket*, adjustable range 64 mm<br>The installation depth between the deep-mounting bracket and the cover is 99-147 mm*2<br>For connecting Cu busbars<br>For the EDF and WR profile<br>Stepless assembly ⧈⏚ | M(B)T250 to M(B)T351 | 2 | ZW259P2 | 2CPX062679R9999 | |
| Deep-mounting bracket, adjustable range 62 mm<br>The installation depth between the deep-mounting bracket and the cover is 77-139 mm*2<br>For the EDF profile<br>Stepless assembly⏚ | Distribution board panels with mounting plate | 2<br>100 | ED33P2<br>ED33P100 | 2CPX062305R9999<br>2CPX062307R9999 | |
| Deep-mounting bracket, adjustable range 60 mm<br>The installation depth between the deep-mounting bracket and the cover is 119-179 mm*2<br>For the WR profile<br>For depth adjustment in 15 mm steps⏚ | Free extension | 2<br>100 | ZW60P2<br>ZW60P100 | 2CPX062454R9999<br>2CPX062476R9999 | |
| Deep-mounting bracket, adjustable range 88 mm<br>The installation depth between the deep-mounting bracket and the cover is 128-216 mm*2<br>For the WR profile<br>Stepless assembly⏚ | M(B)L100 up to M(B)L300<br>M(B)S131 up to M(B)S331 | 2<br>40 | ZW142P2<br>ZW142P40 | 2CPX062463R9999<br>2CPX062477R9999 | |

*2 When using cover holder ED138 with a hight of 52.5 mm

# Distribution panel system – System parts
## Mounting cross members for busbar modules / universal application


ZW398


ZW253


ZW252


ZW255


ZW256


ZW399


ZW384


ZW403LR


ZX322


ZX333


ZW386


ZW390P2


ZW322

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Mounting cross members for busbar modules** | | | | | |
| For the busbar modules 40 mm | M(B)S324 / M(B)H350 | 1 | ZW398 | 2CPX068098R9999 | |
| For busbar modules<br>Devices 40 mm | M(B)T350 / M(B)T351 | 1 | ZW253 | 2CPX062680R9999 | |
| For the busbar module 60 mm<br>For the busbar holders ZX151 as additional support | M(B)S327 | 1 | ZW252 | 2CPX062664R9999 | |
| For the busbar module device 60 mm<br>For the busbar holders ZX146 as additional support | M(B)R302(B) | 1 | ZW255 | 2CPX064151R9999 | |
| For the busbar module device 60 mm<br>For the busbar holders ZX146 as additional support | M(B)R303(B) | 1 | ZW256 | 2CPX062678R9999 | |
| For the busbar module device 60 mm<br>For the busbar holder ZX146<br>For the EDF and WR mounting frame | M(B)R...H | 1 | ZW399 | 2CPX062972R9999 | |
| For the busbar modules 40/60 mm<br>For busbar holder type ZX151<br>For the EDF mounting frame | M(B)S...24<br>M(B)S...27 | 1 | ZW384 | 2CPX062748R9999 | |
| For the busbar module device 60 mm<br>For the busbar holder ZX146, recessed,<br>For the WR mounting frame | M(B)R...03 | 1 | ZW403LR | 2CPX062974R9999 | |
| **Mounting cross members**<br>**For the busbar holder ZX518** | | | | | |
| For the busbar module 45° inclined<br>1 panel wide | M(B)S128 | 1 | ZX322 | 2CPX064159R9999 | |
| For the busbar module 45° inclined<br>2 panel wide | M(B)S228 | 1 | ZX333 | 2CPX064163R9999 | |
| For the N/PE busbar module<br>For the busbar holder engaged | M(B)N...69 | 1 | ZW386 | 2CPX062749R9999 | |
| For the N/PE busbar module<br>For additional support | M(B)N274, M(B)N275<br>M(B)N374, M(B)N375 | 2 | ZW390P2 | 2CPX062486R9999 | |
| **Mounting cross member**<br>**For terminal modules** | | | | | |
| 195 mm | M(B)K112-114 | 1 | ZW322 | | |
| 435 mm | M(B)K212-214 | 1 | ZW323 | | |
| 685 mm | M(B)K312-314 | 1 | ZW324 | | |

# Enclosures
## Distribution panel system – System parts
## Mounting cross members for MCCBs and switch disconnectors



ED160



ED166



ED167



ED162



ED163



ED155



ED173

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Mounting cross members MCCB** | | | | | |
| Make: ABB, series: Tmax T, Tmax XT including sliding nuts M4 | | | | | |
| 1 panel wide<br>Tmax T1/XT1, Tmax T2, Tmax T3/XT3<br>Usable width 199 mm | MA100ALSB - MA250ALSB<br>M(B)A190T | 1 | ED160 | 2CPX068773R9999 | |
| 2 panel wide<br>Tmax T1/XT1,Tmax T2, Tmax T3/XT3<br>Usable width 449 mm | M(B)A290T | 1 | ED260 | 2CPX062977R9999 | |
| 3 panel wide<br>Tmax T1/XT1, Tmax T2, Tmax T3/XT3<br>Usable width 699 mm | M(B)A390T | 1 | ED360 | 2CPX062978R9999 | |
| 1 panel wide Tmax XT2<br>Usable width 199 mm | M(B)A191T | 1 | ED170 | 2CPX068388R9999 | |
| 2 panel wide<br>Tmax XT2<br>Usable width 449 mm | M(B)A291T | 1 | ED270 | 2CPX068390R9999 | |
| 3 panel wide<br>Tmax XT2<br>Usable width 699 mm | M(B)A391T | 1 | ED370 | 2CPX068391R9999 | |
| 1 panel wide<br>Tmax XT4<br>Usable width 199 mm | M(B)A193T | 1 | ED171 | 2CPX068389R9999 | |
| 1 panel wide<br>Tmax T4, 3 pole | M(B)A192T | 1 | ED166 | 2CPX064155R9999 | |
| 2 panel wide<br>Tmax T4, 4 pole,<br>Tmax T5, 3 and 4 pole | M(B)A292T | 1 | ED167 | 2CPX064156R9999 | |
| **Mounting cross member for switch disconnector** | | | | | |
| 1 panel wide<br>For OT200E03P and OT250E03P | MA200ALAB - MA250ALAB<br>MA250ALA | 1 | ED162 | 2CPX068807R9999 | |
| 2 panel wide<br>For OT400E03P and OT630E03P | MA400ALAB - MA630ALAB<br>MA630ALA | 1 | ED163 | 2CPX068808R9999 | |
| **Universal mounting cross member with**<br>**Fastening screws and captive nuts M4, M5, M6**<br>(2 pcs. are required per switch)<br>Usable width/depth | | | | | |
| For switch up to 250 A, 1 panel wide<br>170 mm/135 mm | M(B)A250A | 1 | ED155 | 2CPX067963R9999 | |
| For switch up to 630 A, 2 panel wide<br>420 mm/153 mm | M(B)A630A<br>MA400ALSB - MA630ALSB | 1 | ED158 | 2CPX067969R9999 | |
| For switch up to 800 A, 2 panel wide<br>420 mm/161 mm | M(B)A800A | 1 | ED173 | 2CPX067998R9999 | |

# Enclosures
## Distribution panel system – System parts
## Mounting cross member for disconnectors


ZX31


ZX34


ZW162


ZH235


ZH238


ZW159


ZW160


ZH418


ZX35


ZX297P10

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Mounting cross member for disconnectors** | | | | | |
| With fastening screws and captive nuts for: | | | | | |
| 1/2 disconnector size 00<br>1 panel wide | M(B)T135(B)<br>M(B)T136(B)<br>M(B)T137(B) | 1<br>10 | ZX31<br>ZX31P10 | 2CPX039031R9999<br>2CPX062480R9999 | |
| 4 disconnectors size 00<br>2 panel wide | M(B)T236(B)<br>M(B)T237(B) | 1<br>10 | ZX34<br>ZX34P10 | 2CPX039034R9999<br>2CPX062481R9999 | |
| 6 disconnectors size 00<br>3 panel wide | M(B)T336(B)<br>M(B)T337(B) | 1 | ZW162 | 2CPX039458R9999 | |
| 1 disconnector size 1<br>1 panel wide | M(B)T142(B)<br>M(B)T143(B) | 1 | ZH235 | 2CPX039841R9999 | |
| 1 disconnector size 2<br>1 panel wide | M(B)T144(B)<br>M(B)T145(B) | 1 | ZH238 | 2CPX039837R9999 | |
| 2 disconnectors size 1 or size 2<br>2 panel wide | M(B)T242(B)<br>M(B)T243(B)<br>M(B)T244(B)<br>M(B)T245(B) | 1 | ZW159 | 2CPX039455R9999 | |
| 3 disconnectors size 1 or size 2<br>3 panel wide | M(B)T345(B)<br>M(B)T343(B)<br>M(B)T344(B)<br>M(B)T345(B) | 1 | ZW160 | 2CPX039456R9999 | |
| Mounting cross member for disconnectors<br>For size 00 disconnectors for an assembly to the DIN rail | - | 1 | ZH418 | 2CPX062968R9999 | |
| Mounting cross member for telecommunication devices<br>Without fastening screws or captive nuts | 1MK...A | 1 | ZX35 | 2CPX060638R9999 | |
| **Captive nuts** | | | | | |
| For cross members and telecommunication devices | | | | | |
| M4 | ED160 - ED360<br>ED170 - ED370<br>ED171 / ZX35 | 10 | ZX299P10 | 2CPX060639R9999 | |
| M6 | ZX31 / ZX34 / ZW162 | 10 | ZX297P10 | 2CPX062541R9999 | |
| M8 | ZH235 / ZH238<br>ZW159 / ZW160 | 10 | ZX298P10 | 2CPX062542R9999 | |

# Enclosures
## Distribution panel system – System parts
## Mounting plates for recessed and top fitted assemblies



ZW365

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Mounting plates for the assembly between the mounting frame** | | | | | |
| For recessed mounting with deep-mounting bracket | | | | | |
| H x W | | | | | |
| **1 panel wide** | | | | | |
| 1 GU, 116 x 188 mm | M(B)M111 | 1 | ZW365 | 2CPX068073R9999 | |
| 2 GU, 266 x 188 mm | M(B)M112 | 1 | ZW338 | 2CPX067938R9999 | |
| 3 GU, 416 x 188 mm | M(B)M113 | 1 | ZW341 | 2CPX067941R9999 | |
| 4 GU, 566 x 188 mm | M(B)M114 | 1 | ZW344 | 2CPX067944R9999 | |
| 5 GU, 716 x 188 mm | M(B)M115 | 1 | ZW362 | 2CPX068070R9999 | |
| **2 panel wide** | | | | | |
| 1 GU, 116 x 438 mm | M(B)M211 | 1 | ZW336 | 2CPX067936R9999 | |
| 2 GU, 266 x 438 mm | M(B)M212 | 1 | ZW339 | 2CPX067939R9999 | |
| 3 GU,416 x 438 mm | M(B)M213 | 1 | ZW342 | 2CPX067942R9999 | |
| 4 GU, 566 x 438 mm | M(B)M214 | 1 | ZW345 | 2CPX067945R9999 | |
| 5 GU, 716 x 438 mm | M(B)M215 | 1 | ZW363 | 2CPX068071R9999 | |
| **3 panel wide** | | | | | |
| 1 GU, 116 x 688 mm | M(B)M311 | 1 | ZW337 | 2CPX067937R9999 | |
| 2 GU, 266 x 688 mm | M(B)M312 | 1 | ZW340 | 2CPX067940R9999 | |
| 3 GU, 416 x 688 mm | M(B)M313 | 1 | ZW343 | 2CPX067943R9999 | |
| 4 GU, 566 x 688 mm | M(B)M314 | 1 | ZW346 | 2CPX067946R9999 | |
| 5 GU, 716 x 688 mm | M(B)M315 | 1 | ZW364 | 2CPX068072R9999 | |



ZX605

| | | | | | |
|---|---|---|---|---|---|
| **Mounting plates** | | | | | |
| **For the assembly to the mounting frame** | | | | | |
| For top fitted assemblies in compact distribution boards without deep-mounting bracket | | | | | |
| 1 panel wide<br>2 GU, 266 x 200 mm | M(B)M112K | 1 | ZX605 | 2CPX067776R9999 | |
| 1 panel wide<br>3 GU, 416 x 200 mm | M(B)M113K | 1 | ZX606 | 2CPX067777R9999 | |
| 1 panel wide<br>4 GU, 566 x 200 mm | M(B)M114K | 1 | ZX607 | 2CPX064154R9999 | |

# Enclosures
## Distribution panel system – System parts
## Mounting frame/meter plates/switchgear cabinet lighting


ZX382


ZX381


ZX379


ZX380


ZX390


ZX24


ZX304


ZX305


ZX574


ZX378P20


ZE220


ZE221

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Mounting frame for measurement instruments 96 x 96 mm** | | | | | |
| 1 panel wide | M(B)U156 | 1 | ZX382 | 2CPX068186R9999 | |
| | M(B)U157<br>M(B)U158 | 1 | ZX381 | 2CPX068086R9999 | |
| 2 panel wide | M(B)U257 | 1 | ZX379 | 2CPX068084R9999 | |
| 3 panel wide | M(B)U357 | 1 | ZX380 | 2CPX068085R9999 | |
| **Mounting frame for switch disconnectors** | | | | | |
| make ABB SlimLine | | | | | |
| 2 panel wide | M(B)L25 | 1 | ZX390 | 2CPX068560R9999 | |
| 3 panel wide | M(B)L35 | 1 | ZX391 | 2CPX068561R9999 | |
| **Cable protection sleeve** | | | | | |
| Set M 20 | M(B)V180 | 1 | ZX24 | 2CPX068538R9999 | |
| Set M 32 | M(B)V181, M(B)V281 | 1 | ZX25 | 2CPX068539R9999 | |
| Set M 40 | M(B)V182, M(B)V282 | 1 | ZX26 | 2CPX068540R9999 | |
| **Meter plates for WR profile** | | | | | |
| 1 panel wide, height 450 mm,<br>For one meter, without top part | M(B)Z160 | 1 | ZX304 | 2CPX060294R9999 | |
| 1 panel wide, height 750 mm,<br>For two meters, without top part | M(B)Z161 | 1 | ZX305 | 2CPX060295R9999 | |
| Top part for meter plates<br>incl. fastening material 1 panel | M(B)Z160<br>M(B)Z161 | 1 | ZX574 | 2CPX068781R9999 | |
| Spacer for meter plate | M(B)Z160<br>M(B)Z161 | 20 | ZX378P20 | 2CPX062547R9999 | |
| **Switchgear cabinet lighting** | | | | | |
| 8 watts | M(B)U270 | 1 | ZE220 | 2CPX068058R9999 | |
| 13 watts | M(B)U370 | 1 | ZE221 | 2CPX068059R9999 | |

# Enclosures
## Distribution panel system – System parts
## Busbars by the metre


ZX400


ZX406


ZX403


ZX365


ZX409


ZX362


ZX412


ZX415

| Article | Pieces | Order details | | Price |
|---|---|---|---|---|
| | | Type | Order code | |
| **Rated current 250 A** | | | | |
| Dimensions 12 x 5 mm | | | | |
| 1 m | 1 | ZX400 | 2CPX061400R9999 | |
| 2 m | 1 | ZX401 | 2CPX061401R9999 | |
| 3 m | 1 | ZX402 | 2CPX061402R9999 | |
| 4 m | 1 | ZX350 | 2CPX061350R9999 | |
| **Rated current 320 A** | | | | |
| Dimensions 20 x 5 mm | | | | |
| 1 m | 1 | ZX406 | 2CPX061406R9999 | |
| 2 m | 1 | ZX407 | 2CPX061407R9999 | |
| 3 m | 1 | ZX408 | 2CPX061408R9999 | |
| 4 m | 1 | ZX351 | 2CPX061351R9999 | |
| **Rated current 360 A** | | | | |
| Dimensions 12 x 10 mm | | | | |
| 1 m | 1 | ZX403 | 2CPX061403R9999 | |
| 2 m | 1 | ZX404 | 2CPX061404R9999 | |
| 3 m | 1 | ZX405 | 2CPX061405R9999 | |
| 4 m | 1 | ZX354 | 2CPX061354R9999 | |
| **Rated current 390 A** | | | | |
| Cu busbars 25 x 5 mm | | | | |
| 1 m | 1 | ZX365 | 2CPX061365R9999 | |
| 2 m | 1 | ZX366 | 2CPX061366R9999 | |
| 3 m | 1 | ZX367 | 2CPX061367R9999 | |
| 4 m | 1 | ZX352 | 2CPX061352R9999 | |
| **Rated current 440 A** | | | | |
| Cu busbars 30 x 5 mm | | | | |
| 1 m | 1 | ZX409 | 2CPX061409R9999 | |
| 2 m | 1 | ZX410 | 2CPX061410R9999 | |
| 3 m | 1 | ZX411 | 2CPX061411R9999 | |
| 4 m | 1 | ZX353 | 2CPX061353R9999 | |
| **Rated current 500 A** | | | | |
| Cu busbars 20 x 10 mm | | | | |
| 1 m | 1 | ZX362 | 2CPX061362R9999 | |
| 2 m | 1 | ZX363 | 2CPX061363R9999 | |
| 3 m | 1 | ZX364 | 2CPX061364R9999 | |
| 4 m | 1 | ZX355 | 2CPX061355R9999 | |
| **Rated current 630 A** | | | | |
| Cu busbars 30 x 10 mm | | | | |
| 1 m | 1 | ZX412 | 2CPX061412R9999 | |
| 2 m | 1 | ZX413 | 2CPX061413R9999 | |
| 3 m | 1 | ZX414 | 2CPX061414R9999 | |
| 4 m | 1 | ZX356 | 2CPX061356R9999 | |
| **Rated current 850 A** | | | | |
| Cu busbars 40 x 10 mm | | | | |
| 1 m | 1 | ZX415 | 2CPX061415R9999 | |
| 2 m | 1 | ZX416 | 2CPX061416R9999 | |
| 3 m | 1 | ZX417 | 2CPX061417R9999 | |
| 4 m | 1 | ZX357 | 2CPX061357R9999 | |

# Enclosures
## Distribution panel system – System parts
## Busbar holders and accessories


ZX387


ZB5


ZX147


ZX146


ZX172


ZX157


ZX151


ZX158


ZX520


ZX523

| Article | To be used for... | Pieces | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| Busbar holder 3-pole<br>Busbar centre spacing 40 mm<br>For Cu busbars 12 x 5 mm and 12 x 10 mm | M(B)T...50(B)<br>M(B)T...51(B) | 1 | ZX387 | 2CPX068092R9999 | |
| Busbar holder 5-pole<br>Busbar centre spacing 40 mm<br>For Cu busbars 12 x 5 mm, 12 x 10 mm and 20 x 5 mm | M(B)H...50<br>M(B)S...24 | 1<br>10 | ZB5<br>ZB5P10 | 2CPX038459R9999<br>2CPX062556R9999 | |
| Busbar holder 1-pole<br>Busbar centre spacing 60 mm<br>For Cu busbars 12 x 5 mm up to 30 x 10 mm<br>For connecting to ZX146 | - | 1<br>10 | ZX147<br>ZX147P10 | 2CPX044011R9999<br>2CPX062719R9999 | |
| Busbar holder 3-pole<br>Busbar centre spacing 60 mm<br>For Cu busbars 12 x 5 mm up to 30 x 10 mm | M(B)R...02(B)<br>M(B)R...H<br>M(B)R...03 | 1<br>10 | ZX146<br>ZX146P10 | 2CPX044010R9999<br>2CPX062718R9999 | |
| End cover<br>For busbar holders ZX146 / ZB5 | M(B)H...50<br>M(B)R...02(B)<br>M(B)S...24 | 1<br>10 | ZX172<br>ZX172P10 | 2CPX060232R9999<br>2CPX062724R9999 | |
| N/PE busbar holders<br>For Cu busbars 12 x 5 mm up to 30 x 5 mm and 12 x 10 mm up to 20 x 10 mm<br>For series connection to ZX151 | - | 1<br>10 | ZX157<br>ZX157P10 | 2CPX044009R9999<br>2CPX062722R9999 | |
| Busbar holder 3-pole<br>Busbar centre spacing 60 mm<br>For Cu busbars 12 x 5 mm up to 30 x 10 mm | M(B)S...27 | 1<br>10 | ZX151<br>ZX151P10 | 2CPX044006R9999<br>2CPX062721R9999 | |
| End cover<br>For busbar holder type ZX151 | - | 1<br>10 | ZX158<br>ZX158P10 | 2CPX060208R9999<br>2CPX062723R9999 | |
| **Busbar holder 3-pole** | | | | | |
| Busbar centre spacing 60 mm/100 mm<br>For Cu busbars 30 x 10 mm up to 60 x 10 mm | M(B)L...52(B)<br>M(B)S...31 | 1<br>10 | ZX520<br>ZX520P10 | 2CPX067861R9999<br>2CPX062552R9999 | |
| Busbar centre spacing 100 mm/185 mm<br>For Cu busbars 30 x 10 mm up to 100 x 10 mm | M(B)L...00(B)<br>ML...B | 1<br>10 | ZX522<br>ZX522P10 | 2CPX067909R9999<br>2CPX062553R9999 | |
| Busbar holder 3/4 pole<br>Busbar centre spacing 185 mm<br>For Cu busbars 40 x 10 mm | M(B)L25<br>M(B)L35 | 1 | ZX523 | 2CPX068553R9999 | |

# Enclosures
## Distribution panel system – System parts
## Busbar holders and accessories



**ZX518**



**ZX519**



**ZX149**



**ZB19**



**ZX50**

| Article | To be used for... | Pieces | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| N/PE busbar holders | M(B)N...69 | 1 | ZX518 | 2CPX067805R9999 | |
| For Cu busbars 12 x 5 mm, 20 x 5 mm | M(B)N...74 | 10 | ZX518P10 | 2CPX062551R9999 | |
| 30 x 5 mm | M(B)N...75 | | | | |
| | M(B)S...28 | | | | |
| End cover | M(B)N...74 | 1 | ZX519 | 2CPX062687R9999 | |
| For busbar holders ZX518 | M(B)N...75 | 10 | ZX519P10 | 2CPX062686R9999 | |
| N/PE busbar holders | M(B)N...62 | 1 | ZX149 | 2CPX044019R9999 | |
| For Cu busbars 12 x 5 mm up to 30 x 10 mm | M(B)N...63 | 10 | ZX149P10 | 2CPX062720R9999 | |
| Snap-on cover profile | - | 1 | ZB19 | 2CPX038187R9999 | |
| For Cu busbars 12 x 5 mm and 12 x 10 mm | - | 10 | ZB19P10 | 2CPX062709R9999 | |
| 1 m long | | | | | |
| **Support insulators with spanner flats** | | | | | |
| Diameter x Length | | | | | |
| 30 x 30 mm, thread, both sides M6 | - | 1 | ZX50 | 2CPX039050R9999 | |
| Key width: 30 mm | | 20 | ZX50P20 | 2CPX062725R9999 | |
| 30 x 30 mm, thread, both sides M8 | - | 1 | ZX51 | 2CPX039051R9999 | |
| Key width: 30 mm | | 20 | ZX51P20 | 2CPX062726R9999 | |
| 40 x 40 mm, thread, both sides M10 | - | 1 | ZX52 | 2CPX039052R9999 | |
| Key width: 40 mm | | 20 | ZX52P20 | 2CPX062560R9999 | |
| 50 x 60 mm, thread, both sides M12 | - | 1 | ZX53 | 2CPX039053R9999 | |
| Key width: 50 mm | | 20 | ZX53P20 | 2CPX062559R9999 | |
| 40 x 50 mm, thread, one side M12 | - | 1 | ZX54 | 2CPX039054R9999 | |
| Male thread: M12 x 65 mm | | 20 | ZX54P20 | 2CPX062727R9999 | |

# Enclosures
## Distribution panel system – System parts
## Fastening material



ZW62

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Insertion nut for WR profile | 1 | ZW62 | 2CPX039462R9999 | |
| Set M 8 | 50 | ZW62P50 | 2CPX062479R9999 | |



ZX256P10

| **Insertion nut for profile rails, profile no. 1 and 2** | | | | |
|---|---|---|---|---|
| L x W x D (mm) | | | | |
| 20 x 11 x 4, M5 | 10 | ZX256P10 | 2CPX062515R9999 | |
| 20 x 14 x 4, M5 | 10 | ZX248P10 | 2CPX062509R9999 | |
| 20 x 14 x 4, M6 | 10 | ZX249P10 | 2CPX062510R9999 | |
| 20 x 14 x 4, M8 | 10 | ZX250P10 | 2CPX062511R9999 | |



ZX230P10

| **Sliding nut for profile rails, profile no. 1 and 2** | | | | |
|---|---|---|---|---|
| L x W x D (mm) | | | | |
| 20 x 20 x 4, M3 | 10 | ZX226P10 | 2CPX062494R9999 | |
| 20 x 20 x 4, M4 | 10 | ZX227P10 | 2CPX062495R9999 | |
| 20 x 20 x 4, M5 | 10 | ZX228P10 | 2CPX062496R9999 | |
| 20 x 20 x 4, M6 | 10 | ZX229P10 | 2CPX062497R9999 | |
| 20 x 20 x 4, M8 | 10 | ZX230P10 | 2CPX062498R9999 | |
| **Sliding nut for profile rails, for profile no. 3** | | | | |
| L x W x D (mm) | | | | |
| 25 x 25 x 8, M5 | 10 | ZX235P10 | 2CPX062639R9999 | |
| 25 x 25 x 6, M6 | 10 | ZX231P10 | 2CPX062499R9999 | |
| 25 x 25 x 8, M8 | 10 | ZX232P10 | 2CPX062500R9999 | |
| 25 x 25 x 8, M10 | 10 | ZX233P10 | 2CPX062501R9999 | |
| 25 x 25 x 8, M12 | 10 | ZX234P10 | 2CPX062502R9999 | |



ZB61P10

| **Spacers, plastic** | | | | |
|---|---|---|---|---|
| For raised or recessed mounting of DIN rails, incl. screws | | | | |
| 10 mm long | 10 | ZB61P10 | 2CPX062393R9999 | |
| length: 15 mm | 10 | ZB62P10 | 2CPX062394R9999 | |
| length: 20 mm | 10 | ZB63P10 | 2CPX062395R9999 | |
| length: 25 mm | 10 | ZB64P10 | 2CPX062396R9999 | |
| length: 30 mm | 10 | ZB65P10 | 2CPX062397R9999 | |
| length: 40 mm | 10 | ZB67P10 | 2CPX062398R9999 | |
| length: 50 mm | 10 | ZB69P10 | 2CPX062399R9999 | |
| By the metre, length 1 m | 10 | ZB70 | 2CPX038570R9999 | |



ZW99

| **Vibration damper** | | | | |
|---|---|---|---|---|
| For vibration-free installation of mounting plates and devices | | | | |
| M 6 male thread and M 6 female thread | 1 | ZW98 | 2CPX060124R9999 | |
| M10 female thread | 1 | ZW99 | 2CPX060125R9999 | |

# Enclosures
## Distribution panel system – System parts
## Fastening material


ZB21P4


ZB36P20


ZB37P20


ZB22P20


ZB32P4


ZB27P20


ZX273P4


ZX910P10


ZX260P10


ZX263P10

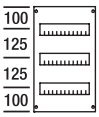
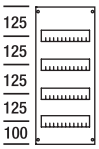
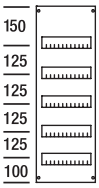
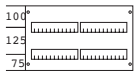
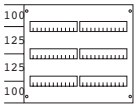

ZX258P10


ZX270P10

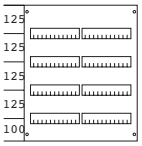

ZX283P10

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Cross recess pan head screw<br>Pozidriv PZ2, M5 x 8 mm | 4 | ZB21P4 | 2CPX062663R9999 | |
| | 20 | ZB21P20 | 2CPX068585R9999 | |
| Philipps cross recess pan head screw with slotted hexalobular drive<br>Pozidriv PZ2, M5 x 12 mm | 20 | ZB36P20 | 2CPX062390R9999 | |
| Hexalobular socket and slotted pan head screw*<br>M5 x 12 mm / Torx T25 | 20 | ZB37P20 | 2CPX060202R9999 | |
| Slotted cheese head screw<br>M5 x 20 mm | 20 | ZB22P20 | 2CPX068586R9999 | |
| **Cross recess pan head screw with slotted hexalobular drive**<br>Torx T25 | | | | |
| M 4.8 x 9.5 mm | 4 | ZB32P4 | 2CPX064149R9999 | |
| | 20 | ZB32P20 | 2CPX062651R9999 | |
| | 500 | ZB32P500 | 2CPX062652R9999 | |
| M 4.8 x 11.5 mm | 20 | ZB27P20 | 2CPX062588R9999 | |
| | 500 | ZB27P500 | 2CPX062689R9999 | |
| M 4.8 x 32 mm | 4 | ZX273P4 | 2CPX064153R9999 | |
| **Hexalobular socket pan head screw*** | | | | |
| M6 x 20 mm / Torx T30 | 10 | ZX910P10 | 2CPX060203R9999 | |
| M6 x 30 mm / Torx T30 | 10 | ZX912P10 | 2CPX060204R9999 | |
| M6 x 45 mm / Torx T30 | 10 | ZX915P10 | 2CPX060205R9999 | |
| **Hexagon socket head cap screw** | | | | |
| M 5 x 10 mm | 10 | ZX260P10 | 2CPX062517R9999 | |
| M6 x 20 mm | 10 | ZX261P10 | 2CPX062518R9999 | |
| M6 x 30 mm | 20 | ZX257P20 | 2CPX068588R9999 | |
| M6 x 45 mm | 20 | ZX259P20 | 2CPX068589R9999 | |
| **Hexagon socket head cap screw** | | | | |
| M8 x 16 mm | 10 | ZX263P10 | 2CPX062520R9999 | |
| M8 x 20 mm | 10 | ZX264P10 | 2CPX062521R9999 | |
| M8 x 30 mm | 10 | ZX265P10 | 2CPX062522R9999 | |
| Hexagon socket head cap screw and captive spring lock washer<br>M6 x 12 mm | 10 | ZX258P10 | 2CPX062516R9999 | |
| Hexagon socket head cap screw, self-tapping<br>For hole-diameter 5.5 mm<br>M6 x 20 | 10 | ZX270P10 | 2CPX062527R9999 | |
| Washer<br>6 mm | 10 | ZX283P10 | 2CPX060281R9999 | |

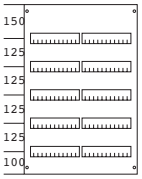
# Enclosures
## Distribution panel system – System parts
## Covers for rail mounting devices, 125 mm DIN rail spacing

| | Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| | **Covers 1 panel wide with 90° press and turn closure** | | | | |
| | Height x width | | | | |
|  AS11 | 150 x 250 mm without slot | 1 | AG11 | 2CPX062801R9999 | |
| | 150 x 250 mm with slot | 1 | AS11 | 2CPX062802R9999 | |
|  AS12 | 300 x 250 mm without slot | 1 | AG12 | 2CPX062803R9999 | |
| | 300 x 250 mm with slot | 1 | AS12 | 2CPX062804R9999 | |
|  AS13 | 450 x 250 mm without slot | 1 | AG13 | 2CPX062805R9999 | |
| | 450 x 250 mm with slot | 1 | AS13 | 2CPX062806R9999 | |
|  AS14 | 600 x 250 mm without slot | 1 | AG14 | 2CPX062807R9999 | |
| | 600 x 250 mm with slot | 1 | AS14 | 2CPX062808R9999 | |
|  AS15 | 750 x 250 mm without slot | 1 | AG15 | 2CPX062809R9999 | |
| | 750 x 250 mm with slot | 1 | AS15 | 2CPX062810R9999 | |
| | **Covers 2 panel wide with 90° press and turk closure** | | | | |
| | height x width | | | | |
|  AS21 | 150 x 500 mm without slot | 1 | AG21 | 2CPX062811R9999 | |
| | 150 x 500 mm with slot | 1 | AS21 | 2CPX062812R9999 | |
|  AS22 | 300 x 500 mm without slot | 1 | AG22 | 2CPX062813R9999 | |
| | 300 x 500 mm with slot | 1 | AS22 | 2CPX062814R9999 | |
|  AS23 | 450 x 500 mm without slot | 1 | AG23 | 2CPX062815R9999 | |
| | 450 x 500 mm with slot | 1 | AS23 | 2CPX062816R9999 | |

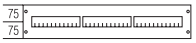
# Enclosures
## Distribution panel system – System parts
## Covers for rail mounting devices, 125 mm DIN rail spacing



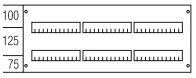

AS24



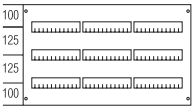

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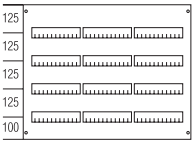

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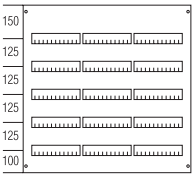

AS32




AS33



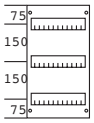
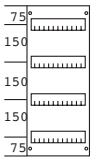
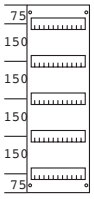
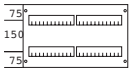
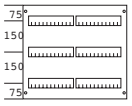

AS34




AS35

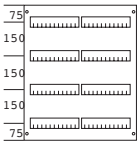
| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Covers 2 panel wide with 90° press and turn closure** | | | | |
| Height x width | | | | |
| 600 x 500 mm without slot | 1 | AG24 | 2CPX062817R9999 | |
| 600 x 500 mm with slot | 1 | AS24 | 2CPX062818R9999 | |
| 750 x 500 mm without slot | 1 | AG25 | 2CPX062819R9999 | |
| 750 x 500 mm with slot | 1 | AS25 | 2CPX062820R9999 | |
| **Covers 3 panel wide with 90° press and turn closure** | | | | |
| height x width | | | | |
| 150 x 750 mm without slot | 1 | AG31 | 2CPX062821R9999 | |
| 150 x 750 mm with slot | 1 | AS31 | 2CPX062822R9999 | |
| 300 x 750 mm without slot | 1 | AG32 | 2CPX062823R9999 | |
| 300 x 750 mm with slot | 1 | AS32 | 2CPX062824R9999 | |
| 450 x 750 mm without slot | 1 | AG33 | 2CPX062825R9999 | |
| 450 x 750 mm with slot | 1 | AS33 | 2CPX062826R9999 | |
| 600 x 750 mm without slot | 1 | AG34 | 2CPX062827R9999 | |
| 600 x 750 mm with slot | 1 | AS34 | 2CPX062828R9999 | |
| 750 x 750 mm without slot | 1 | AG35 | 2CPX062829R9999 | |
| 750 x 750 mm with slot | 1 | AS35 | 2CPX062830R9999 | |

# Enclosures
## Distribution panel system – System parts
## Covers for rail mounting devices, 150 mm DIN rail spacing

| | Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| | **Covers 1 panel wide with 90° press and turn closure** | | | | |
| | Height x width | | | | |
|  AH1 | 75 x 250 mm without slot | 1 | AH1 | 2CPX070387R9999 | |
|  AS11 | 150 x 250 mm without slot | 1 | AG11 | 2CPX062801R9999 | |
| | 150 x 250 mm with slot | 1 | AS11 | 2CPX062802R9999 | |
|  AS212 | 300 x 250 mm without slot | 1 | AG212 | 2CPX062831R9999 | |
| | 300 x 250 mm with slot | 1 | AS212 | 2CPX062832R9999 | |
|  AS213 | 450 x 250 mm without slot | 1 | AG213 | 2CPX062833R9999 | |
| | 450 x 250 mm with slot | 1 | AS213 | 2CPX062834R9999 | |
|  AS214 | 600 x 250 mm without slot | 1 | AG214 | 2CPX062835R9999 | |
| | 600 x 250 mm with slot | 1 | AS214 | 2CPX062836R9999 | |
|  AS215 | 750 x 250 mm without slot | 1 | AG215 | 2CPX062837R9999 | |
| | 750 x 250 mm with slot | 1 | AS215 | 2CPX062838R9999 | |
| | **Covers 2 panel wide with 90° press and turk closure** | | | | |
| | height x width | | | | |
|  AH2 | 75 x 500 mm without slot | 1 | AH2 | 2CPX070388R9999 | |
|  AS21 | 150 x 500 mm without slot | 1 | AG21 | 2CPX062811R9999 | |
| | 150 x 500 mm with slot | 1 | AS21 | 2CPX062812R9999 | |
|  AS222 | 300 x 500 mm without slot | 1 | AG222 | 2CPX062839R9999 | |
| | 300 x 500 mm with slot | 1 | AS222 | 2CPX062840R9999 | |
|  AS223 | 450 x 500 mm without slot | 1 | AG223 | 2CPX062841R9999 | |
| | 450 x 500 mm with slot | 1 | AS223 | 2CPX062842R9999 | |

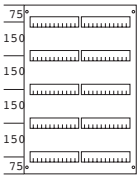
# Enclosures
## Distribution panel system – System parts
## Covers for rail mounting devices, 150 mm DIN rail spacing

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Covers 2 panel wide with 90° press and turn closure** | | | | |
| Height x width | | | | |
| 600 x 500 mm without slot | 1 | AG224 | 2CPX062843R9999 | |
| 600 x 500 mm with slot | 1 | AS224 | 2CPX062844R9999 | |




AS224

| | | | | |
|---|---|---|---|---|
| 750 x 500 mm without slot | 1 | AG225 | 2CPX062845R9999 | |
| 750 x 500 mm with slot | 1 | AS225 | 2CPX062846R9999 | |



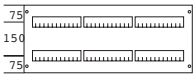

AS225

| | | | | |
|---|---|---|---|---|
| **Covers 3 panel wide with 90° press and turn closure** | | | | |
| height x width | | | | |
| 150 x 750 mm without slot | 1 | AG31 | 2CPX062821R9999 | |
| 150 x 750 mm with slot | 1 | AS31 | 2CPX062822R9999 | |




AS31

| | | | | |
|---|---|---|---|---|
| 300 x 750 mm without slot | 1 | AG232 | 2CPX062847R9999 | |
| 300 x 750 mm with slot | 1 | AS232 | 2CPX062848R9999 | |



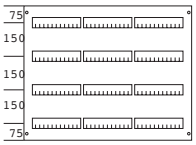

AS232

| | | | | |
|---|---|---|---|---|
| 450 x 750 mm without slot | 1 | AG233 | 2CPX062849R9999 | |
| 450 x 750 mm with slot | 1 | AS233 | 2CPX062850R9999 | |



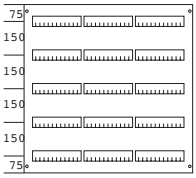

AS233

| | | | | |
|---|---|---|---|---|
| 600 x 750 mm without slot | 1 | AG234 | 2CPX062851R9999 | |
| 600 x 750 mm with slot | 1 | AS234 | 2CPX062852R9999 | |



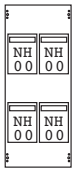
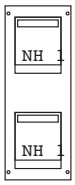
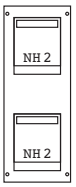
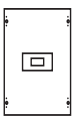

AS234

| | | | | |
|---|---|---|---|---|
| 750 x 750 mm without slot | 1 | AG235 | 2CPX062853R9999 | |
| 750 x 750 mm with slot | 1 | AS235 | 2CPX062854R9999 | |

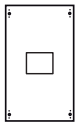
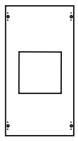
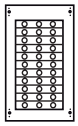



AS235

# Enclosures
## Distribution panel system – System parts
## Covers 1 panel wide with cut-out

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers 1 panel wide with press and turn closure** | | | | | |
| Height x width | | | | | |
|  **AG71** | | | | | |
| 300 x 250 mm, with cut-out<br>For 1 fuse switch disconnectors size 00 | M(B)T135(B) | 1 | AG71 | 2CPX062873R9999 | |
|  **AG65** | | | | | |
| 300 x 250 mm, with cut-out<br>For 2 fuse switch disconnectors size 00 | M(B)T136(B) | 1 | AG65 | 2CPX062870R9999 | |
|  **AG73** | | | | | |
| 600 x 250 mm, with cut-out<br>For 4 fuse switch disconnectors size 00 | M(B)T137(B) | 1 | AG73 | 2CPX062875R9999 | |
|  **AG72** | | | | | |
| 450 x 250 mm, with cut-out<br>For 1 fuse switch disconnectors size 1 | M(B)T142(B) | 1 | AG72 | 2CPX062874R9999 | |
|  **AG173** | | | | | |
| 750 x 250 mm, with cut-out<br>For 2 fuse switch disconnectors size 1 | M(B)T143(B) | 1 | AG173 | 2CPX062899R9999 | |
|  **AG161** | | | | | |
| 450 x 250 mm, with cut-out<br>For 1 fuse switch disconnector size 2 | M(B)T144(B) | 1 | AG161 | 2CPX062887R9999 | |
|  **AG174** | | | | | |
| 750 x 250 mm, with cut-out<br>For 2 fuse switch disconnector size 2 | M(B)T145(B) | 1 | AG174 | 2CPX062900R9999 | |
|  **AG200** | | | | | |
| **300 x 250 mm, with cut-out** | | | | | |
| For OT switch OT160M3 | MA160ALAB | 1 | AG200 | 2CPX062931R9999 | |
| For OT switch OT200E03P, OT250E03P | MA200ALAB<br>MA250ALAB | 1 | AG201 | 2CPX062932R9999 | |

# Enclosures
## Distribution panel system – System parts
## Covers 1 panel wide with cut-out

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers 1 panel wide with press and turn closure** | | | | | |
| Height x width | | | | | |
|  AG205<br>300 x 250 mm, with cut-out<br>For MCCB Tmax T1, T2, T3, XT1, XT3 | M(B)A190T | 1 | AG205 | 2CPX062936R9999 | |
| **300 x 250 mm, with cut-out** | | | | | |
|  AG196<br>For MCCB Tmax T1 | MA100ALSB<br>MA160ALSB | 1 | AG196 | 2CPX062927R9999 | |
| For MCCB Tmax T3 | MA200ALSB<br>MA250ALSB | 1 | AG197 | 2CPX062928R9999 | |
|  AG206<br>300 x 250 mm, with cut-out<br>For MCCB Tmax XT2 | M(B)A191T | 1 | AG206 | 2CPX062855R9999 | |
|  AG207<br>450 x 250 mm, with cut-out<br>For MCCB Tmax XT4 | M(B)A193T | 1 | AG207 | 2CPX062856R9999 | |
|  AG1304<br>450 x 250 mm, with cut-out<br>For MCCB Tmax T4 | M(B)A192T | 1 | AG1304 | 2CPX064157R9999 | |
| **300 x 250 mm, with cut-out** | | | | | |
|  AG127<br>For S700 | M(B)H150 | 1 | AG127 | 2CPX062986R9999 | |
| for S750 | M(B)H151 | 1 | AG128 | 2CPX062989R9999 | |
|  AG175<br>150 x 250 mm, with cut-out<br>for flexible conduit connector | M(B)V180<br>M(B)V181<br>M(B)V182 | 1 | AG175 | 2CPX062901R9999 | |
|  AG160<br>300 x 250 mm, with cut-out<br>For mounting fuse socket<br>5 x 3 x D02 | M(B)R102(B) | 1 | AG160 | 2CPX062886R9999 | |
|  AG121<br>300 x 250 mm, with cut-out<br>For mounting fuse socket<br>Space for horizontal devices<br>134 mm | M(B)R102H | 1 | AG121 | 2CPX062969R9999 | |
|  AG131<br>450 x 250 mm, with cut-out<br>For mounting fuse socket<br>Space for horizontal devices<br>295 mm | M(B)R103H | 1 | AG131 | 2CPX062970R9999 | |

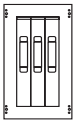
# Enclosures
## Distribution panel system – System parts
## Covers, 1 panel wide with cut-out / with window

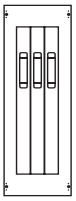

AG132


AG164


AG165


AG168


AG185

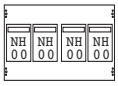

AG188


AG12S

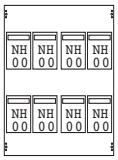
| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers, 1 panel wide, with 90° press and turn closure** | | | | | |
| Height x width | | | | | |
| 150 x 250 mm, with cut-out<br>For measurement instruments, 96 x 96 mm | M(B)U156 | 1 | AG132 | 2CPX062992R9999 | |
| 300 x 250 mm, with cut-out<br>For measurement instruments, 96 x 96 mm | M(B)U157 | 1 | AG164 | 2CPX062890R9999 | |
| 450 x 250 mm, with cut-out<br>For measurement instruments, 96 x 96 mm | M(B)U158 | 1 | AG165 | 2CPX062891R9999 | |
| 450 x 250 mm, with cut-out<br>For switchgear cabinet lighting | - | 1 | AG168 | 2CPX062894R9999 | |
| 450 x 250 mm, with cut-out<br>For 3 fuse switch disconnectors size 00, ZE59<br>100 mm busbar centre spacing | ML152B | 1 | AG185 | 2CPX062911R9999 | |
| 750 x 250 mm, with cut-out<br>For 3 fuse switch disconnectors size 00, ZE55<br>185 mm busbar centre spacing | ML100B | 1 | AG188 | 2CPX062914R9999 | |
| **Covers with window**<br>**1 panel wide with press and turn closure** | | | | | |
| 300 x 250 mm, with window | - | 1 | AG12S | 2CPX062228R9999 | |
| 450 x 250 mm, with window | - | 1 | AG13S | 2CPX062230R9999 | |
| 600 x 250 mm, with window | - | 1 | AG14S | 2CPX062232R9999 | |

# Enclosures
## Distribution panel system – System parts
## Covers 2 panel wide with cut-out

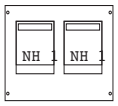
| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers, 2 panel wide, with 90° press and turn closure** | | | | | |
| Height x width | | | | | |
| 300 x 500 mm, with cut-out | M(B)T236(B) | 1 | AG75 | 2CPX062876R9999 | |
| For 4 fuse switch disconnectors size 00 | M(B)T250(B) | | | | |
| 600 x 500 mm, with cut-out | M(B)T237(B) | 1 | AG79 | 2CPX062877R9999 | |
| For 8 fuse switch disconnectors size 00 | | | | | |
| 450 x 500 mm, with cut-out | M(B)T242(B) | 1 | AG82 | 2CPX062878R9999 | |
| For 2 fuse switch disconnectors size 1 | M(B)T251(B) | | | | |
| 750 x 500 mm, with cut-out | M(B)T243(B) | 1 | AG83 | 2CPX062879R9999 | |
| For 4 fuse switch disconnectors size 1 | | | | | |
| 450 x 500 mm, with cut-out | M(B)T244(B) | 1 | AG92 | 2CPX062884R9999 | |
| For 2 fuse switch disconnector size 2 | | | | | |
| 750 x 500 mm, with cut-out | M(B)T245(B) | 1 | AG66 | 2CPX062871R9999 | |
| For 4 fuse switch disconnector size 2 | | | | | |
| 300 x 500 mm, with cut-out | M(B)A290T | 1 | AG259 | 2CPX062979R9999 | |
| For MCCB Tmax T1, T2, T3, XT1, XT3 | | | | | |
| 450 x 500 mm, with cut-out | | | | | |
| For MCCB Tmax T4/T5, 3 and 4 pole | M(B)A292T | 1 | AG1404 | 2CPX064158R9999 | |
| For MCCB Tmax T5 | MA400ALSB<br>MA630ALSB | 1 | AG198 | 2CPX062929R9999 | |
| 300 x 500 mm, with cut-out | | | | | |
| For S700 | M(B)H250 | 1 | AG227 | 2CPX062987R9999 | |
| for S750 | M(B)H251 | 1 | AG228 | 2CPX062990R9999 | |



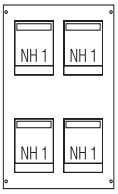
AG75



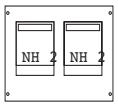
AG79



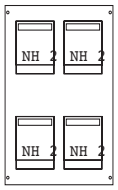
AG82



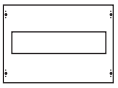
AG83

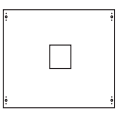


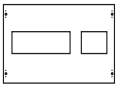
AG92



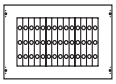
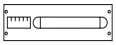
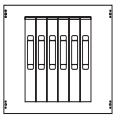
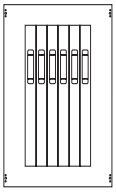
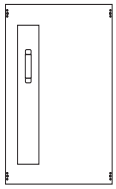
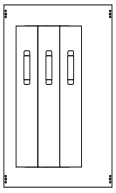
AG66


AG259

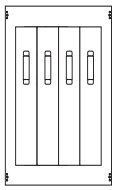

AG1404


AG227

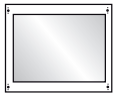
# Enclosures
## Distribution panel system – System parts
## Covers 2 panel wide with cut-out

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers, 2 panel wide, with 90° press and turn closure** | | | | | |
| Height x width | | | | | |
|  **AG176**<br>150 x 500 mm, with cut-out<br>for flexible conduit connector | M(B)V281<br>M(B)V282 | 1 | AG176 | 2CPX062902R9999 | |
|  **AG172**<br>300 x 500 mm, with cut-out<br>For mounting fuse socket<br>14 x 3 x D02 | M(B)R202(B) | 1 | AG172 | 2CPX062898R9999 | |
|  **AG162**<br>150 x 500 mm, with cut-out<br>For measurement instruments, 96 x 96 mm | M(B)U257 | 1 | AG162 | 2CPX062888R9999 | |
|  **AG166**<br>150 x 500 mm, with cut-out<br>For switchgear cabinet lighting | M(B)U270 | 1 | AG166 | 2CPX062892R9999 | |
|  **AG186**<br>450 x 500 mm, with cut-out<br>For 6 fuse switch disconnectors size 00, ZE59<br>100 mm busbar centre spacing | ML252B | 1 | AG186 | 2CPX062912R9999 | |
|  **AG189**<br>750 x 500 mm, with cut-out<br>For 6 fuse switch disconnectors size 00, ZE55 | ML200B | 1 | AG189 | 2CPX062915R9999 | |
| For switch disconnector fuse, ABB SlimLine XR<br>Cut-out 300 mm, width<br>185 mm busbar centre spacing | - | 1 | AG177 | 2CPX062903R9999 | |
|  **AG182**<br>750 x 500 mm, with cut-out<br>For 1 fuse switch disconnector sizes 1 to 3, ZE56 - ZE58 | - | 1 | AG182 | 2CPX062908R9999 | |
|  **AG181**<br>750 x 500 mm, with cut-out<br>For 3 fuse switch disconnector sizes 1 to 3, ZE56 - ZE58 | - | 1 | AG181 | 2CPX062907R9999 | |

# Enclosures
## Distribution panel system – System parts
## Covers, 2 panel wide with cut-out



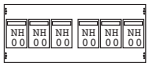
AG183



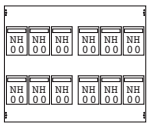
AG22S

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers, 2 panel wide, with 90° press and turn closure** | | | | | |
| Height x width | | | | | |
| 750 x 500 mm, with cut-out<br>For 4 fuse switch disconnectors sizes 1-3<br>ZE56 - ZE58 | ML21B<br>ML22B<br>ML23B | 1 | AG183 | 2CPX062909R9999 | |
| 750 x 500 mm, with cut-out<br>For switch disconnector fuse, ABB SlimLine XR<br>Cut-out 400 mm, width | - | 1 | AG179 | 2CPX062905R9999 | |
| **Covers with window, 2 panel wide, with 90° press and turn closure** | | | | | |
| 300 x 500 mm, with window | - | 1 | AG22S | 2CPX062229R9999 | |
| 450 x 500 mm, with window | - | 1 | AG23S | 2CPX062231R9999 | |
| 600 x 500 mm, with window | - | 1 | AG24S | 2CPX062233R9999 | |

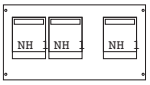
# Enclosures
## Distribution panel system – System parts
## Covers 3 panel wide with cut-out



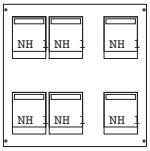

AG84



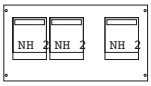

AG85



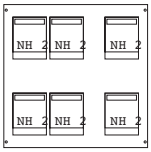

AG90



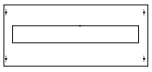

AG91



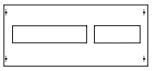

AG93




AG67



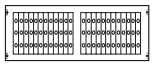
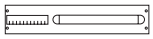
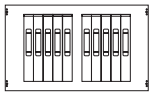
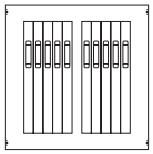
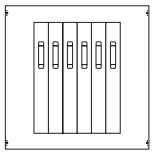
AG359



AG327

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Covers with cut-out, 3 panel wide with press and turn closure** | | | | | |
| Height x width | | | | | |
| 300 x 750 mm, with cut-out<br>For 6 fuse switch disconnectors size 00 | M(B)T336(B)<br>M(B)T350(B) | 1 | AG84 | 2CPX062880R9999 | |
| 600 x 750 mm, with cut-out<br>For 12 fuse switch disconnectors size 00 | M(B)T337(B) | 1 | AG85 | 2CPX062881R9999 | |
| 450 x 750 mm, with cut-out<br>For 3 fuse switch disconnectors size 1 | M(B)T342B<br>M(B)T351(B) | 1 | AG90 | 2CPX062882R9999 | |
| 750 x 750 mm, with cut-out<br>For 6 fuse switch disconnectors size 1 | M(B)T343(B) | 1 | AG91 | 2CPX062883R9999 | |
| 450 x 750 mm, with cut-out<br>For 3 fuse switch disconnectors size 2 | M(B)T344(B) | 1 | AG93 | 2CPX062885R9999 | |
| 750 x 750 mm, with cut-out<br>For 6 fuse switch disconnectors size 2 | M(B)T345(B) | 1 | AG67 | 2CPX062872R9999 | |
| 300 x 750 mm, with cut-out<br>For MCCB Tmax T1, T2, T3, XT1, XT3 | M(B)A390T | 1 | AG359 | 2CPX062980R9999 | |
| **300 x 750 mm, with cut-out** | | | | | |
| For S700 | M(B)H350 | 1 | AG327 | 2CPX062988R9999 | |
| for S750 | M(B)H351 | 1 | AG328 | 2CPX062991R9999 | |

# Enclosures
## Distribution panel system – System parts
## Covers 3 panel wide with cut-out

| | Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|
| | **Covers with cut-out, 3 panel wide, with 90° press and turn closure** | | | | | |
| | Height x width | | | | | |
|  AG321 | 300 x 750 mm, with cut-out<br>For mounting fuse socket<br>24 x 3 x D02 | M(B)R302(B) | 1 | AG321 | 2CPX062971R9999 | |
|  AG163 | 150 x 750 mm, with cut-out<br>For measurement instruments, 96 x 96 mm | M(B)U357 | 1 | AG163 | 2CPX062889R9999 | |
|  AG167 | 150 x 750 mm, with cut-out<br>For switchgear cabinet lighting | M(B)U370 | 1 | AG167 | 2CPX062893R9999 | |
|  AG187 | 450 x 750 mm, with cut-out<br>For 10 fuse switch disconnectors, ZE59<br>100 mm busbar centre spacing | ML352B | 1 | AG187 | 2CPX062913R9999 | |
|  AG190 | 750 x 750 mm, with cut-out<br>For 10 fuse switch disconnectors, ZE55<br>185 mm busbar centre spacing | ML300B | 1 | AG190 | 2CPX062916R9999 | |
| | 750 x 750 mm, with cut-out<br>For switch disconnector fuse, ABB SlimLine XR<br>Cut-out 2 x 250 mm width<br>185 mm busbar centre spacing | - | 1 | AG178 | 2CPX062904R9999 | |
|  AG184 | 750 x 750 mm, with cut-out<br>For 6 fuse switch disconnectors, ZE56 - ZE58 | - | 1 | AG184 | 2CPX062910R9999 | |
| | 750 x 750 mm, with cut-out<br>For switch disconnector fuse, ABB SlimLine XR<br>Cut-out 600 mm, width | - | 1 | AG180 | 2CPX062906R9999 | |

# Enclosures
## Distribution panel system – System parts
## Cover parts


ED137P4


ED138P4


ED139P4


ED135P4


ED110


ED58P10


ED50P12


ED136P4


ED41P4


ZB35P5

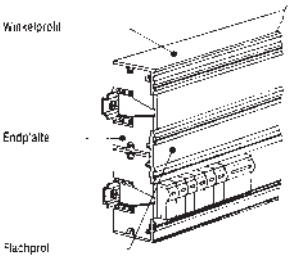
| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| Cover holder 45 mm high<br>For fastening<br>on EDF mounting frame profiles, or for fastening a partition. For DIN rails 35 x 7.5 mm use only this cover holder. | M(B)R...03 | 4 | ED137P4 | 2CPX062600R9999 | |
| | | 40 | ED137P40 | 2CPX062601R9999 | |
| Cover holder 52.5 mm high<br>For fastening (insert, turn) on EDF or WR mounting frame profiles, or for fastening a partition. For DIN rails 35 x 15 mm use only this cover holder. | All modules | 4 | ED138P4 | 2CPX062630R9999 | |
| | | 12 | ED138P12 | 2CPX062602R9999 | |
| | | 40 | ED138P40 | 2CPX062603R9999 | |
| | | 1600 | ED138P1600 | 2CPX062702R9999 | |
| Cover holder 88 mm high<br>For fastening (insert, turn) on EDF or WR mounting frame profiles, or for fastening a partition;<br>Use when installing devices with greater depths or in conjunction with busbar systems | | 4 | ED139P4 | 2CPX062604R9999 | |
| | | 40 | ED139P40 | | |
| Spacer<br>Used to extend the cover holder by 25 mm | M(B)R...03 | 4 | ED135P4 | 2CPX062610R9999 | |
| | | 40 | ED135P40 | | |
| Cover holder<br>(left/right) | | 1 | ED110 | 2CPX039320R9999 | |
| DIN rail adapter<br>For the cover holder ED138 and ED139<br>Snap onto the DIN rail from the front. | | 10 | ED58P10 | 2CPX062338R9999 | |
| 90° press and turn closure | All covers | 12 | ED50P12 | 2CPX062337R9999 | |
| Screw insert<br>Metric thread. For attaching cover plates made of Macrolon, sheet metal or aluminium<br>onto the standard EDF cover holders. | | 4 | ED136P4 | 2CPX062611R9999 | |
| 90° press and turn closure<br>For attaching cover plates made of Macrolon, sheet metal or aluminium onto the standard cover holders. | | 4 | ED41P4 | 2CPX062332R9999 | |
| Sealing nipple<br>For retrofitting in standard panel covers<br>(drill 6 mm hole) | | 5 | ZB35P5 | 2CPX062392R9999 | |

# Enclosures
## Distribution panel system – System parts
## Raising frame/ Terminal safety covers



ED212

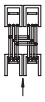
| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Raising frame for covers** | | | | | |
| For panels with cover holders 52.5 mm (ED138.), plastic frame | | | | | |
| to advance the cover by 25 or 35 mm | | | | | |
| External dimensions in mm | | | | | |
| **1 panel wide** | | | | | |
| 300 x 250 | AG12 | 1 | ED212 | 2CPX062782R9999 | |
| 450 x 250 | AG13 | 1 | ED213 | 2CPX062783R9999 | |
| 600 x 250 | AG14 | 1 | ED214 | 2CPX062784R9999 | |
| 750 x 250 | AG15 | 1 | ED215 | 2CPX062785R9999 | |
| **2 panel wide** | | | | | |
| 300 x 500 | AG22 | 1 | ED222 | 2CPX062787R9999 | |
| 450 x 500 | AG23 | 1 | ED223 | 2CPX062788R9999 | |
| 600 x 500 | AG24 | 1 | ED224 | 2CPX062789R9999 | |
| 750 x 500 | AG25 | 1 | ED225 | 2CPX062790R9999 | |
| **3 panel wide** | | | | | |
| 300 x 750 | AG32 | 1 | ED232 | 2CPX062792R9999 | |
| 450 x 750 | AG33 | 1 | ED233 | 2CPX062793R9999 | |
| 600 x 750 | AG34 | 1 | ED234 | 2CPX062794R9999 | |
| 750 x 750 | AG35 | 1 | ED235 | 2CPX062795R9999 | |
| **Order separately per frame:** | | | | | |
| To raise by 25 mm, 1 x ED135P4 | | | | | |
| To raise by 35 mm, 1 x ED139P4 | | | | | |



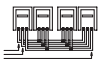

SIKAB terminal safety cover

| Terminal safety cover | | | | |
|---|---|---|---|---|
| End plate | 1 | ZK140 | 2CPX038140R9999 | |
| For fastening to 35 mm DIN rail | 50 | ZK140P50 | 2CPX039363R9999 | |
| Angle profile | 1 | ZK141 | 2CPX038141R9999 | |
| For snapping onto end plates, length 1 m | | | | |
| Flat profile | 1 | ZK142 | 2CPX038142R9999 | |
| For snapping onto between 2 end plates, length 1 m | | | | |

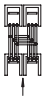
# Enclosures
## Distribution panel system – System parts
## Busbar systems for fuse switch disconnector modules

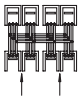

ZH55

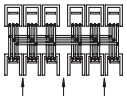

ZH214


ZH211

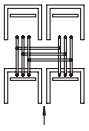

ZH311

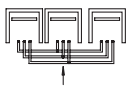

ZH216

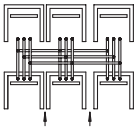

ZH212


ZH312


ZH217


ZH218


ZH317


ZH318

| Size.. | $I_n$ | CU busbar in mm | Connec-tion | No. of discon-nectors | Type ... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|---|---|
| **Busbar systems with feeder cable, 35 mm², length 500 mm** | | | | | | | | | |
| Size 00 | 320 A | 20 x 5 mm | M8 | 4 | - | 1 | ZH55 | 2CPX038559R9999 | |
| **Busbar systems without feeder cables** | | | | | | | | | |
| Size 00 | 320 A | 20 x 5 | M8 | 2 | MT136B | 1 | ZH214 | 2CPX060443R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 4 | MT236B | 1 | ZH211 | 2CPX060440R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 6 | MT336B | 1 | ZH311 | 2CPX060450R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 4 | MT137B | 1 | ZH216 | 2CPX060445R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 4 | - | 5 | ZH216P5 | 2CPX062418R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 8 | MT237B | 1 | ZH212 | 2CPX060441R9999 | |
| Size 00 | 320 A | 20 x 5 | M8 | 12 | MT337B | 1 | ZH312 | 2CPX060451R9999 | |
| Sizes 1 and 2 | 440 A | 30 x 5 | M10 | 2 | MT242B MT244B | 1 | ZH217 | 2CPX060446R9999 | |
| Sizes 1 and 2 | 630 A | 30 x 10 | M10 | 4 | MT243B MT245B | 1 | ZH218 | 2CPX060447R9999 | |
| Sizes 1 and 2 | 440 A | 30 x 5 | M10 | 3 | MT342B MT344B | 1 | ZH317 | 2CPX060456R9999 | |
| Sizes 1 and 2 | 630 A | 30 x 10 | M10 | 6 | MT343B MT345B | 1 | ZH318 | 2CPX060457R9999 | |

> **Important note:** For a single row of disconnectors use 3 straight or three angled cable lugs, and for a double row of disconnectors, use 3 angled cable lugs for the connection of incoming lines.

# Enclosures
## Distribution panel system – System parts
## Trim covers and insulating plates for fuse switch disconnectors


ZH425


ZH426


ZH427


ZH428


ZH439

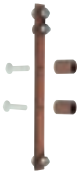

ZH440


ZH447


ZH449


ZH442


ZX148


ZH53

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Size 00 fuse switch disconnector** | | | | | |
| Single trim cover | MT135B | 1 | ZH425 | 2CPX062952R9999 | |
| Double trim cover | MT136B<br>MT137B<br>MT236B<br>MT237B<br>MT250B | 1 | ZH426 | 2CPX062953R9999 | |
| Triple trim cover | MT336B<br>MT337B<br>MT350B | 1 | ZH427 | 2CPX062954R9999 | |
| Single trim cover, closed | - | 1 | ZH428 | 2CPX062955R9999 | |
| Double trim cover, closed | - | 1 | ZH429 | 2CPX062956R9999 | |
| Triple trim cover, closed | - | 1 | ZH430 | 2CPX062957R9999 | |
| **Size 1 fuse switch disconnector** | | | | | |
| Single trim cover | MT...42B<br>MT...43B<br>MT...51B | 1 | ZH438 | 2CPX062961R9999 | |
| Double trim cover | - | 1 | ZH439 | 2CPX062962R9999 | |
| Single trim cover, closed | - | 1 | ZH440 | 2CPX062963R9999 | |
| **Size 2 fuse switch disconnector** | | | | | |
| Single trim cover<br>For modules 1 panel wide | MT144B<br>MT145B | 1 | ZH447 | 2CPX039842R9999 | |
| Single trim cover<br>For modules 3 panel wide | MT344B<br>MT345B | 1 | ZH448 | 2CPX062965R9999 | |
| Double trim cover | MT244B<br>MT245B<br>MT344B<br>MT345B | 1 | ZH449 | 2CPX062966R9999 | |
| Single trim cover, closed | - | 1 | ZH442 | 2CPX062939R9999 | |
| **Insulating plate for unoccupied busbar ends for** | | | | | |
| **Fuse switch disconnectors**<br>incl. fastening material | | | | | |
| Size 00 | - | 1 | ZX148 | 2CPX044018R9999 | |
| 1 | - | 1 | ZX128 | 2CPX039128R9999 | |
| 2 | - | 1 | ZX129 | 2CPX039129R9999 | |
| **N/PE rails for fastening behind the cross members for** | | | | | |
| **Size 00 fuse switch disconnector**<br>Cu 20 x 4 mm, incl. fastening material | - | 1 | ZH53 | 2CPX038557R9999 | |
| **Size 1 fuse switch disconnector**<br>Cu 20 x 4 mm, incl. fastening material | - | 1 | ZH54 | 2CPX038558R9999 | |

# Enclosures
## Distribution panel system – System parts
## Fuse switch disconnectors



ZH411



ZH412



ZH431



ZH441

| Article | To be used for... | Pieces | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| **Fuse switch disconnectors for mounting with EDF and WR mounting frames on disconnector cross members** | | | | | |
| **Size 00 fuse switch disconnector**<br>160 A, with M8 screw connection<br>without trim cover | MT135B<br>MT...36B<br>MT...37B | 1 | ZH411 | 2CPX062947R9999 | |
| **Size 00 fuse switch disconnector**<br>160 A, with clip terminals up to 50 mm²<br>without trim cover | - | 1 | ZH412 | 2CPX062948R9999 | |
| **Size 1 fuse switch disconnector**<br>250 A, with M10 screw connection<br>without trim cover | MT...42B<br>MT...43B | 1 | ZH431 | 2CPX062958R9999 | |
| **Size 2 fuse switch disconnector**<br>400 A, with M10 screw connection<br>without trim cover | MT...44B<br>MT...45B | 1 | ZH441 | 2CPX062964R9999 | |

# Enclosures
## Distribution panel system – System parts
## Fuse switch disconnectors



ZH414



ZH415



ZH19



ZH413



ZH433

| Article | To be used for... | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|
| **Fuse switch disconnectors for mounting with EDF mounting frames on busbar systems, Cu 12 x 5 mm or Cu 12 x 10 mm, busbar spacing 40 mm** | | | | | |
| Size 00 fuse switch disconnector<br>160 A, with clip terminals up to 50 mm²<br>without trim cover | ED...TA | 1 | ZH414 | 2CPX062950R9999 | |
| Size 00 fuse switch disconnector<br>160 A, with triple terminals up to 10 mm²<br>without trim cover | - | 1 | ZH415 | 2CPX062951R9999 | |
| Size 1 fuse switch disconnector<br>250 A, with M10 screw connection<br>with trim cover | - | 1 | ZH19 | 2CPX038204R9999 | |
| **Fuse switch disconnectors for mounting with WR mounting frames on busbar systems, Cu 12 x 5 mm or Cu 12 x 10 mm, busbar spacing 40 mm** | | | | | |
| Size 00 fuse switch disconnector<br>160 A, with M8 screw connection<br>without trim cover | MT250B<br>MT350B | 1 | ZH413 | 2CPX062949R9999 | |
| Size 1 fuse switch disconnector<br>250 A, with M10 screw connection<br>without trim cover | MT251B<br>MT351B | 1 | ZH433 | 2CPX062960R9999 | |

# Enclosures
## Distribution panel system – System parts
## Fuse switch disconnectors



ZE58



ZE59



ZE66



ZK270P3

| Article | To be used for... | Pieces | Order details | | Price |
|---|---|---|---|---|---|
| | | | Type | Order code | |
| **Fuse switch disconnectors, busbar centre spacing 185 mm** | | | | | |
| Size 00, 160 A, 50 mm width | ML100B<br>ML200B<br>ML300B | 1 | ZE55 | 2CPX061040R9999 | |
| Size 1, 250 A, 100 mm width | ML21B<br>ML31B | 1 | ZE56 | 2CPX061041R9999 | |
| Size 2, 400 A, 100 mm width | ML22B<br>ML32B | 1 | ZE57 | 2CPX061042R9999 | |
| Size 3, 630 A, 100 mm width | ML23B<br>ML33B | 1 | ZE58 | 2CPX061043R9999 | |
| **Fuse switch disconnectors, busbar centre spacing 100 mm** | | | | | |
| Size 00, 160 A, 50 mm width | ML...52B | 1 | ZE59 | 2CPX061044R9999 | |
| 1 adapter set for size 00 disconnectors<br>3 pieces for one disconnector | - | 1 | ZE66 | 2CPX061051R9999 | |
| Claw clamp rail adapter for size 00 disconnectors ZE55 and ZE59<br>3 pcs. for one rail | - | 3 | ZK270P3 | 2CPX062428R9999 | |

> **Important note:** If size 00 fuse switches (ZE59) are installed in several adjacent modules, the busbar system must be set back using the adapter set.

# Enclosures
## Distribution panel system – System parts
## Mounting fuse sockets



ZE60



ZE61



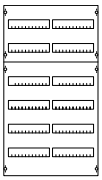
ZE62

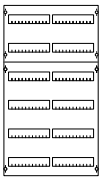


ZA4P10

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Neozed mounting fuse socket E18, width 26 mm | 1 | ZE60 | 2CPX061045R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E18 thread, fuses max. 63 A | 10 | ZE60P10 | 2CPX062400R9999 | |
| Diazed mounting fuse socket E27, width 42 mm | 1 | ZE61 | 2CPX061046R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E27 thread, fuses max. 25 A | 10 | ZE61P10 | 2CPX062401R9999 | |
| Diazed mounting fuse socket E33, width 56 mm | 1 | ZE62 | 2CPX061047R9999 | |
| For push-in guard rings, 3-pole, with covers and labelling strips, with E33 thread, fuses max. 63 A | 10 | ZE62P10 | 2CPX062402R9999 | |
| Trim covers instead of mounting fuse sockets Colour similar to RAL 7035 to comply with the touch protection IPXXC Usable width from 16 up to 34 mm | 10 | ZA4P10 | 2CPX062374R9999 | |

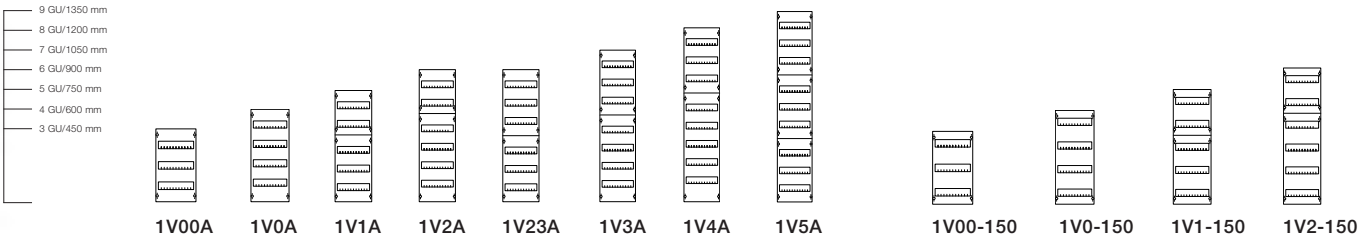
# Enclosures
## Distribution panel system – Distribution panels
## DIN rail mounting devices


2V2A

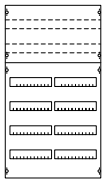

2V2-150

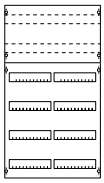
- Extension with DIN rails 35 x 15 mm
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed.
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another.
- Without N/PE Quick-terminals
- The EDF profile rails are included in the scope of delivery

| Height | | | Width | | | Cover distribution (mm) | | | Minimum cabinet depth of (mm) | Order details | | Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | top | centre | bottom | | Type | Order code | |
| **125 mm DIN rail spacing** | | | | | | | | | | | | |
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1V00A | 2CPX037580R9999 | |
| | | | 2 | 500 | 72 | 450 | - | - | 120 | 2V00A | 2CPX037581R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 600 | - | - | 120 | 1V0A | 2CPX037591R9999 | |
| | | | 2 | 500 | 96 | 600 | - | - | 120 | 2V0A | 2CPX037592R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1V1A | 2CPX037610R9999 | |
| | | | 2 | 500 | 120 | 300 | - | 450 | 120 | 2V1A | 2CPX037611R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1V2A | 2CPX037622R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2V2A | 2CPX037623R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 450 | - | 450 | 120 | 1V23A | 2CPX037634R9999 | |
| | | | 2 | 500 | 144 | 450 | - | 450 | 120 | 2V23A | 2CPX037635R9999 | |
| 3 | 7 | 1050 | 1 | 250 | 84 | 450 | - | 600 | 120 | 1V3A | 2CPX037639R9999 | |
| | | | 2 | 500 | 168 | 450 | - | 600 | 120 | 2V3A | 2CPX037640R9999 | |
| 4 | 8 | 1200 | 1 | 250 | 96 | 450 | - | 750 | 120 | 1V4A | 2CPX037651R9999 | |
| | | | 2 | 500 | 192 | 450 | - | 750 | 120 | 2V4A | 2CPX037652R9999 | |
| 5 | 9 | 1350 | 1 | 250 | 108 | 450 | 450 | 450 | 120 | 1V5A | 2CPX037665R9999 | |
| | | | 2 | 500 | 216 | 450 | 450 | 450 | 120 | 2V5A | 2CPX037666R9999 | |
| **150 mm DIN rail spacing** | | | | | | | | | | | | |
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1V00-150 | 2CPX077800R9999 | |
| | | | 2 | 500 | 72 | 450 | - | - | 120 | 2V00-150 | 2CPX077801R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 600 | - | - | 120 | 1V0-150 | 2CPX077802R9999 | |
| | | | 2 | 500 | 96 | 600 | - | - | 120 | 2V0-150 | 2CPX077803R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1V1-150 | 2CPX077804R9999 | |
| | | | 2 | 500 | 120 | 300 | - | 450 | 120 | 2V1-150 | 2CPX077805R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1V2-150 | 2CPX077808R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2V2-150 | 2CPX077809R9999 | |



# Enclosures
## Distribution panel system – Distribution panels
## DIN rail mounting devices with terminals

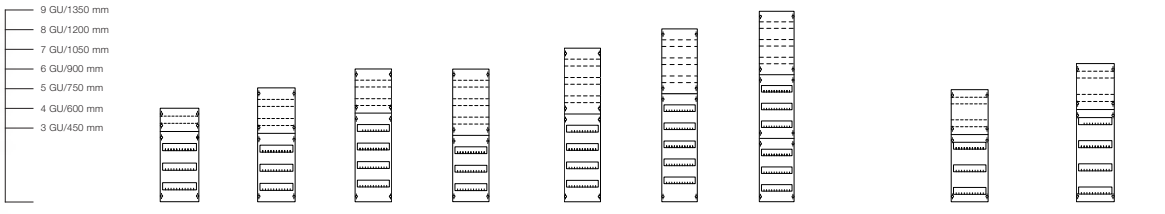

2V2KA


2V2K-150

- DIN rails fixed for terminals using ZK90P2 insulator
- DIN rails for terminals and for rail mounting devices 35 x 15 mm
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed.
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another.
- Without N/PE Quick-terminals
- The EDF profile rails are included in the scope of delivery

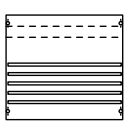
| Height | | | Width | | | Cover distribution (mm) | | | Minimum cabinet depth of (mm) | Order details | | Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | top | centre | bottom | | Type | Order code | |
| **125 mm DIN rail spacing** | | | | | | | | | | | | |
| 0 | 4 | 600 | 1 | 250 | 48 | 150 | - | 450 | 120 | 1V0KA | 2CPX037593R9999 | |
| | | | 2 | 500 | 96 | 150 | - | 450 | 120 | 2V0KA | 2CPX037594R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1V1KA | 2CPX037612R9999 | |
| | | | 2 | 500 | 120 | 300 | - | 450 | 120 | 2V1KA | 2CPX037613R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1V2KA | 2CPX037624R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2V2KA | 2CPX037625R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 450 | - | 450 | 120 | 1V23KA | 2CPX037637R9999 | |
| | | | 2 | 500 | 144 | 450 | - | 450 | 120 | 2V23KA | 2CPX037638R9999 | |
| 3 | 7 | 1050 | 1 | 250 | 84 | 450 | - | 600 | 120 | 1V3KA | 2CPX037641R9999 | |
| | | | 2 | 500 | 168 | 450 | - | 600 | 120 | 2V3KA | 2CPX037642R9999 | |
| 4 | 8 | 1200 | 1 | 250 | 96 | 450 | - | 750 | 120 | 1V4KA | 2CPX037653R9999 | |
| | | | 2 | 500 | 192 | 450 | - | 750 | 120 | 2V4KA | 2CPX037654R9999 | |
| 5 | 9 | 1350 | 1 | 250 | 108 | 450 | 450 | 450 | 120 | 1V5KA | 2CPX037667R9999 | |
| | | | 2 | 500 | 216 | 450 | 450 | 450 | 120 | 2V5KA | 2CPX037668R9999 | |
| **150 mm DIN rail spacing** | | | | | | | | | | | | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1V1K-150 | 2CPX077806R9999 | |
| | | | 2 | 500 | 120 | 300 | - | 450 | 120 | 2V1K-150 | 2CPX077807R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1V2K-150 | 2CPX077810R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2V2K-150 | 2CPX077811R9999 | |

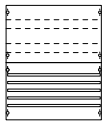




1V0KA 1V1KA 1V2KA 1V23KA 1V3KA 1V4KA 1V5KA 1V1K-150 1V2K-150

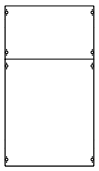
# Enclosures
## Distribution panel system – Distribution panels
## Busbars 40 mm with terminals and touch guard


2V002A


2V02A

- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

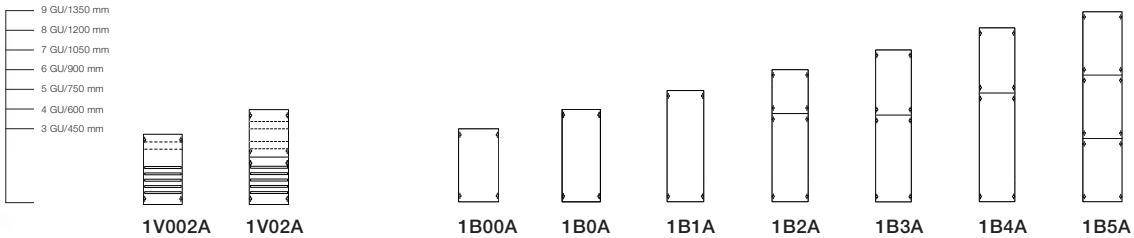
| Height | | | Width | | | Cover distribution (mm) | | | Minimum cabinet depth of (mm) | Order details | | Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | top | centre | bottom | | Type | Order code | |
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1V002A | 2CPX037590R9999 | |
| | | | 2 | 500 | 72 | 450 | - | - | 120 | 2V002A | 2CPX037609R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 300 | - | 300 | 120 | 1V02A | 2CPX037606R9999 | |
| | | | 2 | 500 | 96 | 300 | - | 300 | 120 | 2V02A | 2CPX037607R9999 | |


2B2A

- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are
  to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

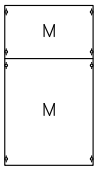
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1B00A | 2CPX037585R9999 | |
| | | | 2 | 500 | 72 | 450 | - | - | 120 | 2B00A | 2CPX037586R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 600 | - | - | 120 | 1B0A | 2CPX037601R9999 | |
| | | | 2 | 500 | 96 | 600 | - | - | 120 | 2B0A | 2CPX037602R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 750 | - | - | 120 | 1B1A | 2CPX037620R9999 | |
| | | | 2 | 500 | 120 | 750 | - | - | 120 | 2B1A | 2CPX037621R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1B2A | 2CPX037632R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2B2A | 2CPX037633R9999 | |
| 3 | 7 | 1050 | 1 | 250 | 84 | 450 | - | 600 | 120 | 1B3A | 2CPX037649R9999 | |
| | | | 2 | 500 | 168 | 450 | - | 600 | 120 | 2B3A | 2CPX037650R9999 | |
| 4 | 8 | 1200 | 1 | 250 | 96 | 450 | - | 750 | 120 | 1B4A | 2CPX037661R9999 | |
| | | | 2 | 500 | 192 | 450 | - | 750 | 120 | 2B4A | 2CPX037662R9999 | |
| 5 | 9 | 1350 | 1 | 250 | 108 | 450 | 450 | 450 | 120 | 1B5A | 2CPX037675R9999 | |
| | | | 2 | 500 | 216 | 450 | 450 | 450 | 120 | 2B5A | 2CPX037676R9999 | |





1V002A 1V02A 1B00A 1B0A 1B1A 1B2A 1B3A 1B4A 1B5A

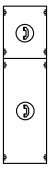
# Enclosures
## Distribution panel system – Distribution panels
## Mounting plates and communications technology




**2M2A**

- Mounting plates are steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

| Height | | | Width | | | Cover distribution (mm) | | | Minimum cabinet depth of (mm) | Order details | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | top | centre | bottom | | Type | Order code | Price |
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1M00A | 2CPX037582R9999 | |
| | | | 2 | 500 | 72 | 450 | - | - | 120 | 2M00A | 2CPX037583R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 600 | - | - | 120 | 1M0A | 2CPX037595R9999 | |
| | | | 2 | 500 | 96 | 600 | - | - | 120 | 2M0A | 2CPX037596R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1M1A | 2CPX037614R9999 | |
| | | | 2 | 500 | 120 | 300 | - | 450 | 120 | 2M1A | 2CPX037615R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1M2A | 2CPX037626R9999 | |
| | | | 2 | 500 | 144 | 300 | - | 600 | 120 | 2M2A | 2CPX037627R9999 | |
| 3 | 7 | 1050 | 1 | 250 | 84 | 450 | - | 600 | 120 | 1M3A | 2CPX037643R9999 | |
| | | | 2 | 500 | 168 | 450 | - | 600 | 120 | 2M3A | 2CPX037644R9999 | |
| 4 | 8 | 1200 | 1 | 250 | 96 | 450 | - | 750 | 120 | 1M4A | 2CPX037655R9999 | |
| | | | 2 | 500 | 192 | 450 | - | 750 | 120 | 2M4A | 2CPX037656R9999 | |
| 5 | 9 | 1350 | 1 | 250 | 108 | 450 | 450 | 450 | 120 | 1M5A | 2CPX037669R9999 | |
| | | | 2 | 500 | 216 | 450 | 450 | 450 | 120 | 2M5A | 2CPX037670R9999 | |

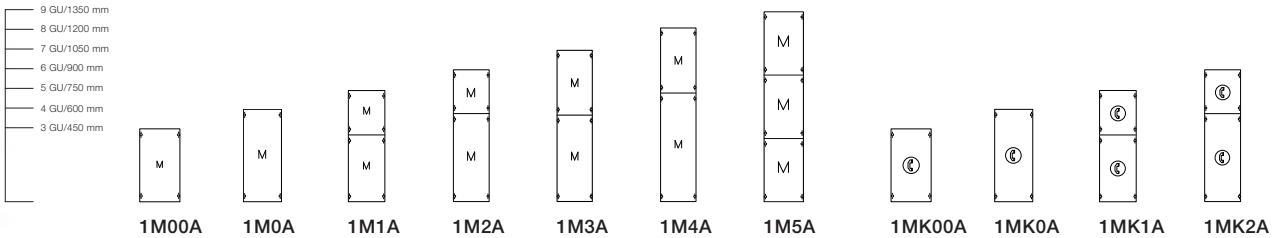


**1MK2A**

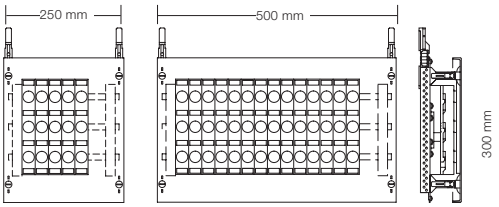
- Mounting cross members are steplessly depth-adjustable using deep-mounting bracket ED33
- For drill-free mounting using M4 captive nuts
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | 3 | 450 | 1 | 250 | 36 | 450 | - | - | 120 | 1MK00A | 2CPX037179R9999 | |
| 0 | 4 | 600 | 1 | 250 | 48 | 600 | - | - | 120 | 1MK0A | 2CPX037180R9999 | |
| 1 | 5 | 750 | 1 | 250 | 60 | 300 | - | 450 | 120 | 1MK1A | 2CPX037181R9999 | |
| 2 | 6 | 900 | 1 | 250 | 72 | 300 | - | 600 | 120 | 1MK2A | 2CPX037182R9999 | |

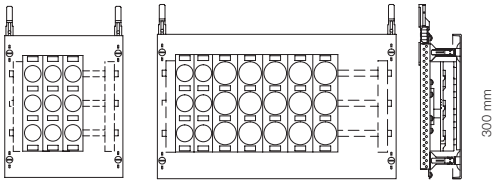




# Enclosures
## Distribution panel system – Combination sets
## Busbar system 40 / 60 mm for devices



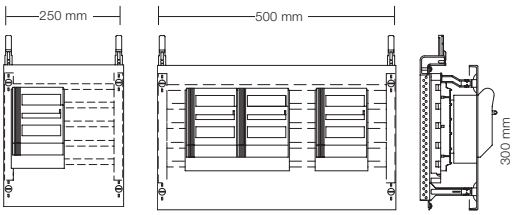

ED10EA ED20EA



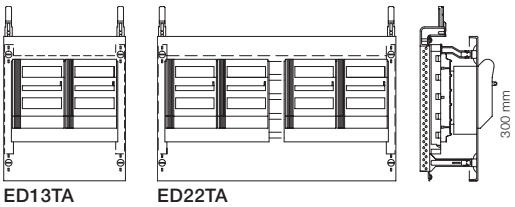

ED11EA ED21EA

- With 3-pole mounting fuse sockets
- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 250 A
- Combination sets can only be used together with distribution board panels

| Height | | | Width | | | Devices | | | Order details | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | Design | Number of | Minimum cabinet depth of (mm) | Type | Order code | Price |
| 0 | 2 | 300 | 1 | 250 | 24 | D02 (ZE60) | 5 | 200 | ED10EA | 2CPX037800R9999 | |
| | | | 2 | 500 | 48 | D02 (ZE60) | 14 | 200 | ED20EA | 2CPX037804R9999 | |
| 0 | 2 | 300 | 1 | 250 | 24 | Diazed E27 (ZE61) | 3 | 200 | ED11EA | 2CPX037801R9999 | |
| | | | 2 | 500 | 48 | Diazed E27 (ZE61) / Diazed E33N (ZE62) | 2 / 5 | 200 | ED21EA | 2CPX037805R9999 | |




ED12TA ED21TA

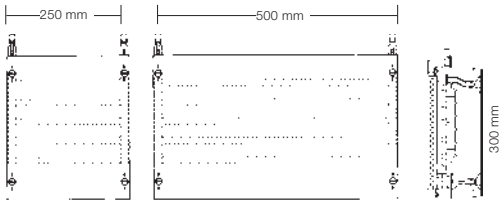



ED13TA ED22TA

- With 3-pole fuse switch disconnector
- Busbar centre spacing 40 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Combination sets can only be used together with distribution board panels

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 300 | 1 | 250 | 24 | Size 00 (ZH414) | 1 | 200 | ED12TA | 2CPX037802R9999 | |
| | | | 2 | 500 | 48 | Size 00 (ZH414) | 3 | 200 | ED21TA | 2CPX037806R9999 | |
| 0 | 2 | 300 | 1 | 250 | 24 | Size 00 (ZH414) | 2 | 200 | ED13TA | 2CPX037803R9999 | |
| | | | 2 | 500 | 48 | Size 00 (ZH414) | 4 | 200 | ED22TA | 2CPX037807R9999 | |

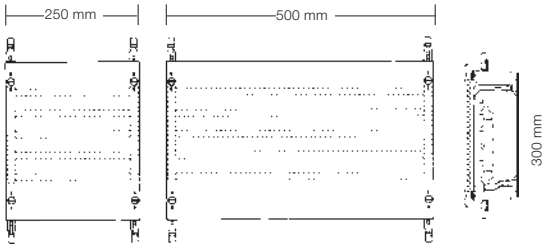
# Enclosures
## Distribution panel system – Combination sets
## Busbar system




ED61SA ED62SA

- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

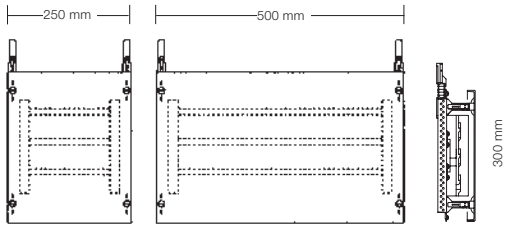
| Height | | | Width | | | | Order details | | |
|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | Minimum cabinet depth | Type | Order code | Price |
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED61SA | 2CPX037810R9999 | |
| | | | 2 | 500 | 48 | 200 | ED62SA | 2CPX037811R9999 | |




ED71SA ED72SA

- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and thus intended to be inserted in between

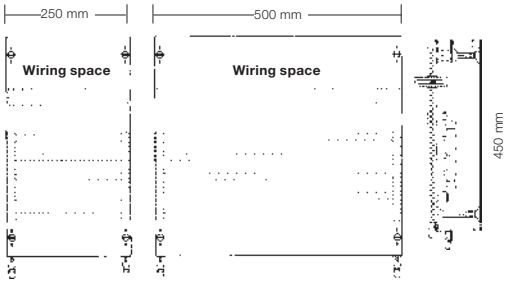
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED71SA | 2CPX037812R9999 | |
| | | | 2 | 500 | 48 | 200 | ED72SA | 2CPX037813R9999 | |




ED55A ED56A

- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED55A | 2CPX037808R9999 | |
| | | | 2 | 500 | 48 | 200 | ED56A | 2CPX037809R9999 | |

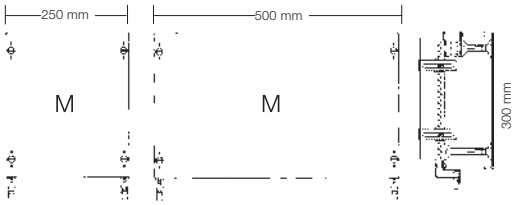



ED91SA ED92SA

- With additional rail for terminals
- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current ($I_n$) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 450 | 1 | 250 | 36 | 200 | ED91SA | 2CPX037816R9999 | |
| | | | 2 | 500 | 72 | 200 | ED92SA | 2CPX037817R9999 | |

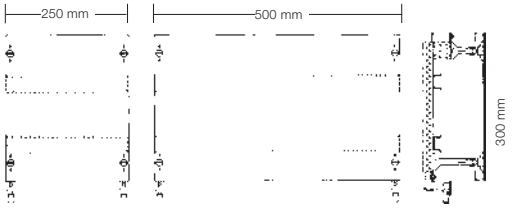
# Enclosures
## Distribution panel system – Combination sets
## Mounting plates, terminals and MCCBs Tmax




**ED61MA** **ED62MA**

- Mounting plates are steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet
- The installation depth between the deep-mounting bracket and the cover is up to 178 mm

| Height | | | Width | | | From | Order details | | |
|---|---|---|---|---|---|---|---|---|---|
| OH | GU | mm | PW | mm | SU | Cabinet depth | Type | Order code | Price |
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED61MA | 2CPX037820R9999 | |
| | | | 2 | 500 | 48 | 200 | ED62MA | 2CPX037821R9999 | |

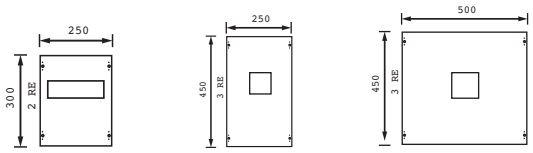



**ED61KA** **ED62KA**

- With horizontal DIN rails 35 x 7.5 mm
- DIN rails fixed using ZK90P2 insulator
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)

- For double insulated installations
- Combination sets are inserted to the top or bottom of a distribution board panel and thus intended to be inserted in between

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED61KA | 2CPX037822R9999 | |
| | | | 2 | 500 | 48 | 200 | ED62KA | 2CPX037823R9999 | |
| 0 | 3 | 450 | 1 | 250 | 36 | 200 | ED91KA | 2CPX037824R9999 | |
| | | | 2 | 500 | 72 | 200 | ED92KA | 2CPX037825R9999 | |




**ED250T3** **ED320T4** **ED630T5**

- For MCCBs ABB Tmax
- ED250T3 Tmax T1/XT1, 2 x 3 pole, 1 x 4 pole, Tmax T2, 2 x 3 pole,
  1 x 4 pole, Tmax T3/XT3, 1 x 3 pole, 1 x 4 pole, in the compact distribution board only 1 x Tmax T1, lever operated,
  max. $I_n$ up to 100 A
- ED320T4 , Tmax, T4, 3 pole
- ED630T5 , Tmax, T4, 4 pole and Tmax, T5, 3 and 4 pole combination sets can only be used together with distribution board panels

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 300 | 1 | 250 | 24 | 200 | ED250T3 | 2CPX037826R9999 | |
| 0 | 3 | 450 | 1 | 250 | 36 | 200 | ED320T4 | 2CPX037827R9999 | |
| | | | 2 | 500 | 72 | 200 | ED630T5 | 2CPX037828R9999 | |

# Distribution panel system – Distribution panels / combination sets

## General accessories



ED30P2

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Panel connector for EDF profile<br>For any combination of distribution board panels or of EDF profile rails<br>mounting plate panels, up to a maximum height of 9 grid units | 2 | ED30P2 | 2CPX062302R9999 | |



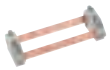
ED31P2

| | | | | |
|---|---|---|---|---|
| Lowering connector for EDF profile<br>For compensating recessed mounting levels, with busbar or<br>mounting plate panels, up to a maximum height of 9 grid units | 2 | ED31P2 | 2CPX062303R9999 | |



ED32P2

| | | | | |
|---|---|---|---|---|
| Lowering bracket for EDF profile<br>To compensate the level difference between the front<br>and rear fixing points | 2 | ED32P2 | 2CPX062304R9999 | |



ZK300

| N/PE busbar system for distribution board panels<br>Cu 12 x 5 mm, max. connection 95 mm² | | | | |
|---|---|---|---|---|
| 1 panel wide | 1 | ZK300 | 2CPX038551R9999 | |
| 2 panel wide | 1 | ZK301 | 2CPX038552R9999 | |



ZK113B

| Article | Number of terminals 1.5 - 4 mm² | Number of terminals 2.5 - 25 mm² | External dimensions H x W x D in mm | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|---|---|---|
| N Quick-terminals<br>For Quick carrier | 5 | 0 | 23 x 32 x 21 | 1 | ZK50B | 2CPX062750R9999 | |
| | 5 | 1 | 32 x 32 x 31 | 1 | ZK51B | 2CPX062751R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82B | 2CPX062752R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113B | 2CPX062753R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144B | 2CPX062754R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175B | 2CPX062755R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206B | 2CPX062756R9999 | |



ZK113G

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE Quick-terminals<br>For quick carriers | 5 | 1 | 32 x 32 x 31 | 1 | ZK51G | 2CPX062757R9999 | |
| | 8 | 2 | 32 x 49 x 31 | 1 | ZK82G | 2CPX062758R9999 | |
| | 11 | 3 | 32 x 65 x 31 | 1 | ZK113G | 2CPX062759R9999 | |
| | 14 | 4 | 32 x 82 x 31 | 1 | ZK144G | 2CPX062760R9999 | |
| | 17 | 5 | 32 x 98 x 31 | 1 | ZK175G | 2CPX062761R9999 | |
| | 20 | 6 | 32 x 115 x 31 | 1 | ZK206G | 2CPX062762R9999 | |



ZK10P10

| | | | | |
|---|---|---|---|---|
| Connecting bridges<br>For Quick-terminals | 10 | ZK10P10 | 2CPX062763R9999 | |



ZK14

| | | | | |
|---|---|---|---|---|
| Quick carrier<br>For distribution board panels<br>Usable width for Quick-terminals 214 mm | 1 | ZK14 | 2CPX064983R9999 | |



ZK15

| | | | | |
|---|---|---|---|---|
| Adapter for ZK50B<br>Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to<br>be laterally fastened UK5… , A3 or to the DIN rail | 1 | ZK15 | 2CPX064984R9999 | |

# Distribution panel system – Distribution panels / Combination sets

## General accessories

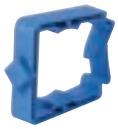


ZX66P4

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| Device support connector | 4 | ZX66P4 | 2CPX062562R9999 | |
| For the connection of EDF and WR mounting frames | 50 | ZX66P50 | 2CPX068614R9999 | |



ED44P10



ED45P10

| | | | | |
|---|---|---|---|---|
| Wire holder | 10 | ED44P10 | 2CPX062335R9999 | |
| For routing of wires, installation depth 28.5 mm, to be inserted into the DIN rail | 50 | ED44P50 | 2CPX062308R9999 | |
| from the rear. | 1000 | ED44P1000 | 2CPX062703R9999 | |
| Wire holder | 10 | ED45P10 | 2CPX062336R9999 | |
| For routing of wires or for holding a plastic tube ∅ 38 mm, installation depth | 50 | ED45P50 | 2CPX062310R9999 | |
| 55 mm, to be inserted into the DIN rail from the rear | 1000 | ED45P1000 | 2CPX062704R9999 | |



ED59P10

| | | | | |
|---|---|---|---|---|
| DIN rail adapter | 10 | ED59P10 | 2CPX062339R9999 | |
| For ED44 or ED45. Snap onto the DIN rail from the front | | | | |



ED42P10



ED43P10

| | | | | |
|---|---|---|---|---|
| Console for wire holder ED44 or ED45 | 10 | ED42P10 | 2CPX062333R9999 | |
| To be inserted into the DIN rail from the rear. | | | | |
| Console for wire holder ED44 or ED45 | 10 | ED43P10 | 2CPX062334R9999 | |
| Snap onto the DIN rail from the front. | | | | |



ED47



ZA1P5

| | | | | |
|---|---|---|---|---|
| Cover | 1 | ED47 | 2CPX039309R9999 | |
| For visual screening of wiring routed in the wire holders ED44 and ED45, 1 m long. | | | | |
| Slot covers | 5 | ZA1P5 | 2CPX062384R9999 | |
| For 12 space units, break-off type, colour RAL 7035 | 50 | ZA1P50 | 2CPX062378R9999 | |
| By the metre | 1 | ZA2 | 2CPX038231R9999 | |
| Colour RAL 7035 | 20 | ZA2P20 | 2CPX062379R9999 | |



ZA122

| | | | | |
|---|---|---|---|---|
| Cleaner for covers | 1 | ZA122 | 2CPX038293R9999 | |
| Spray dispenser, 500 ml | | | | |

# Distribution panel system – Distribution panels / combination sets

## General accessories



ZA8

| Article | Pieces | Order details Type | Order code | Price |
|---|---|---|---|---|
| **Labelling strips** | | | | |
| 20 mm, self-adhesive, 1 panel wide | 1 | ZA8 | 2CPX060200R9999 | |
| | 5 | ZA8P5 | 2CPX062598R9999 | |
| | 40 | ZA8P40 | | |
| 20 mm, self-adhesive, 2 panel wide | 1 | ZA9 | 2CPX060201R9999 | |
| | 5 | ZA9P5 | 2CPX062599R9999 | |
| | 50 | ZA9P50 | | |
| 20 mm, self-adhesive, 3 panel wide | 1 | ZA7 | 2CPX060004R9999 | |
| | 5 | ZA7P5 | 2CPX062597R9999 | |
| 20 mm, self-adhesive, by the metre | 1 | ZA10 | 2CPX038241R9999 | |
| | 10 | ZA10P10 | 2CPX062706R9999 | |
| 20 mm, self-adhesive with additional transparent film, by the metre | 1 | ZA11 | 2CPX038230R9999 | |
| | 10 | ZA11P10 | 2CPX062707R9999 | |
| 16 mm, self-adhesive, by the metre | 1 | ZA12 | 2CPX038242R9999 | |
| | 10 | ZA12P10 | 2CPX062708R9999 | |



ZA71

| | | | | |
|---|---|---|---|---|
| Labelling system for busbars<br>L1, L2, L3, N, PE,<br>1 sheet = 120 different stickers | 1 | ZA71 | 2CPX038458R9999 | |



ZA27

| | | | | |
|---|---|---|---|---|
| Labelling system<br>Self-adhesive, for<br>labelling by hand or by machine, consisting of:<br>1 sheet with 10 strips | 1 | ZA27 | 2CPX038495R9999 | |



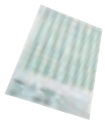
ZA73

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For distribution board panels up to 6 GU | 1 | ZA73 | 2CPX038497R9999 | |



ZA74

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For distribution board panels up to 9 GU | 1 | ZA74 | 2CPX038498R9999 | |



ZA78

| | | | | |
|---|---|---|---|---|
| Labelling system<br>For 8 x 12 SU | 1 | ZA78 | 2CPX031569R9999 | |



ZA79

| | | | | |
|---|---|---|---|---|
| Legend for 72 devices SU | 1 | ZA79 | 2CPX031570R9999 | |

# TwinLine S 43
## Product benefits



### The complete cabinet system in all sizes

The fully comprehensive product range of modular wall-mounting and floor-standing cabinets includes the types TwinLine-G (depth of 225 mm) and TwinLine-L (depth of 275 mm) and provides a solution for every application. All cabinets are designed according to IEC 61439. The modular system is simple in planning, quick in assembly and safe in application.



### Innovative cable entry

A wide range of flange types provides the right solution for every application. All flanges are suited for all flange openings and knockouts of the complete TwinLine cabinets. The flanges can be attached without the need of tools thanks to the handy push and lock technology.



### Simple connection in series of all cabinets

All TwinLine cabinets can be connected in both, horizontally and vertically directions. Uprights for side-by-side positioning and connection sets for stacking the cabinets can be easily installed.



### Time-saving plinth installation and safe transport

The new plinth concept provides a safe transport in the workshop and on-site. The plinth contains knockouts and has the possibility to install wiring ducts for cable support. The standard heights of 50 mm and 100 mm can be stacked and combined in order to fulfil installation needs.




### Optimal accessibility and ease of installation

TwinLine offers unrestricted access during operation, expansion, maintenance and functional monitoring. With its 180-degree door opening and the door locking system, with the possibility to switch the door hinges from right to left it guarantees excellent flexibility.



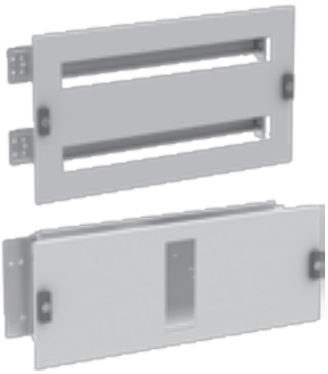
### Removable frame for CombiLine S covers

With its wide range of the new modular distribution panel
system, called CombiLine S, ABB offers the right solution for every application. The removable frame as standard gives
the possibility to remove all covers
in one handling and provides a quick assembly.



### Flexibility in the assembling of internal configuration

With its new mounting concept for the CombiLine S system,
TwinLine provides more flexibility and access for installation and wiring also outside of the cabinet. There is also the option to have continuous mounting plates that can be adjusted in depth.

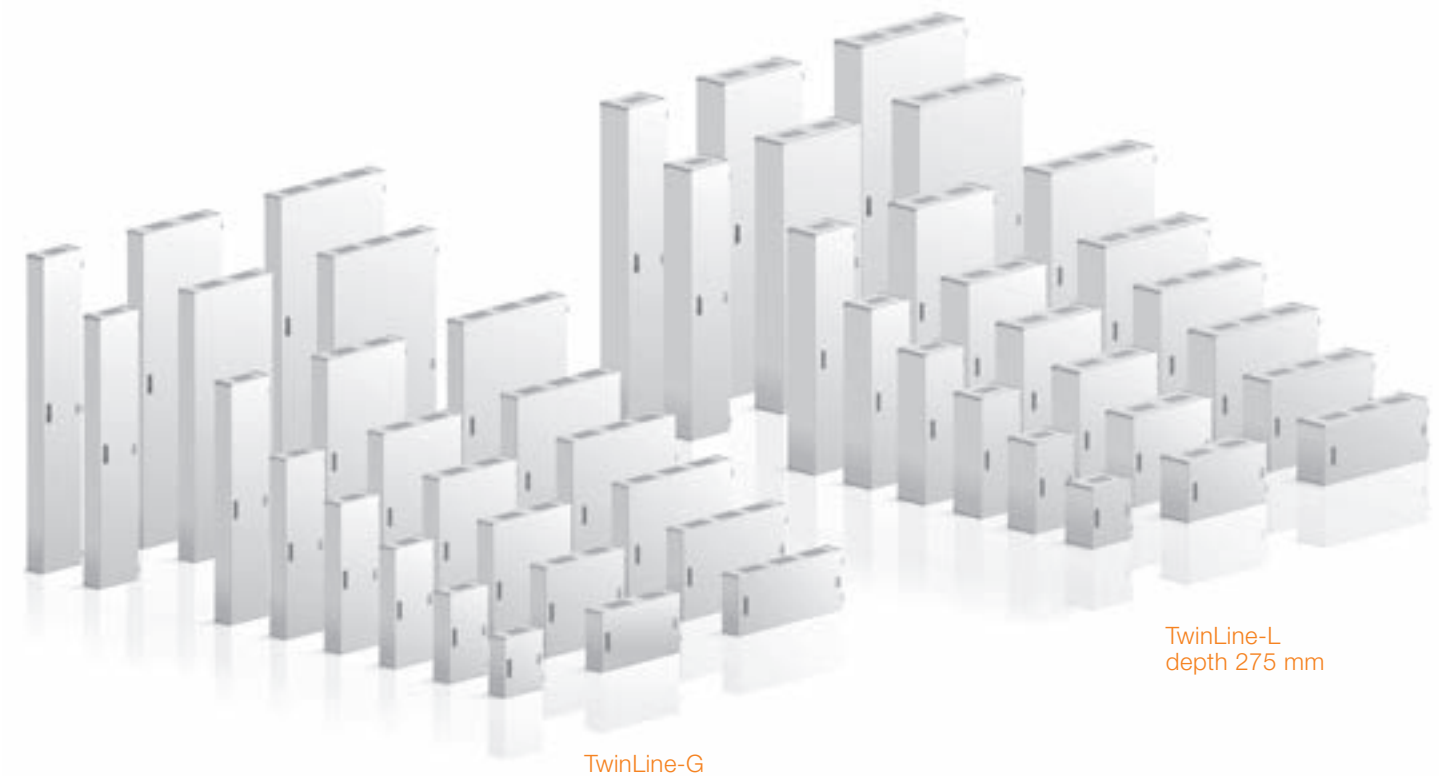


### The right internal configuration for every type of application

The wide range of the internal configuration system CombiLine S fits in all TwinLine S 43 cabinets. CombiLine S provides a time-saving installation due to hook-in technology and a simple closure system for covers with the ¼ turn quick-lock.

# TwinLine S 43
## The complete cabinet system in all sizes

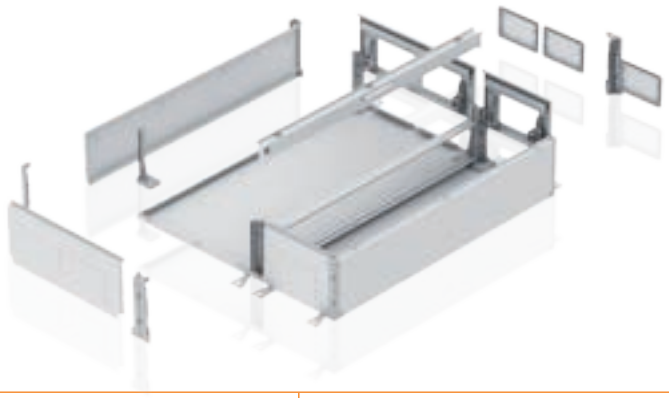
### Simple in planning, Quick in assembly, Safe in application




| Cabinet type | | TwinLine-G | | | TwinLine-L | | |
|---|---|---|---|---|---|---|---|
| Degree of protection | | up to IP43 | | | up to IP43 | | |
| Protection class | | ⏚ | | | ⏚ | | |
| Depth | | 225 | | | 275 | | |
| Width | | 300 | 600 | 800 | 300 | 600 | 800 |
| Height | 400 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 600 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 800 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 1000 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 1200 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 1400 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 1600 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 1800 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 2000 | ■ | ■ | ■ | ■ | ■ | ■ |

> Dimensions in mm

# TwinLine S 43
## System overview





Rear wall



Top and bottom plate



Side walls



Installation set for removable frame



Uprights for side-by-side positioning of cabinets



Internal cable container



Transparent or sheet steel doors



Flanges



Plinth

# TwinLine S 43
## Innovative cable entry

The usable cable entry area is one of largest cable entries available on the market. A wide range of flange types provides the right solution for every application. All flanges are suited for all flange openings and knockouts of the complete TwinLine cabinets. The flanges can be attached without the need of tools thanks to the handy push and lock technology.

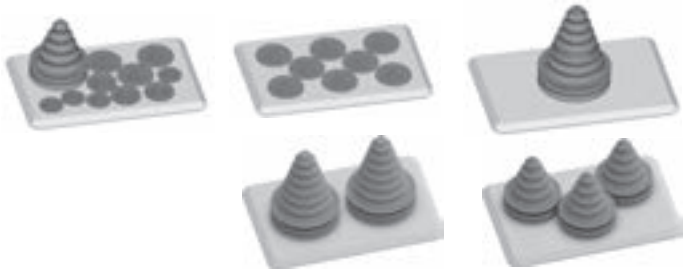
- All flanges are compatible with all flange openings and knockouts within the entire TwinLine system
- Wide range of new flanges
- Tool-free flange installation thanks to push and lock technology



### Membrane flange
- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- Optimal cable entry by a combination of hard and soft components
- Additional fixing and centring



### Flange for M screw fittings
- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- With two different hole patterns



### Flange with cable sleeves
- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology



### Closing flange
- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings



### Closing flange
- With foam seal around perimeter, material: sheet steel 2 mm
- Continuous protective earth connection via flange fastener
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings

# TwinLine S 43
## Technical specifications

| Technical specifications | |
|---|---|
| Standards / regulations | IEC 61439 -1/-2/-3* |
| Protection class | I, earthed |
| Degree of protection | IP43 |
| | Without door IP30 |
| Mechanical impact strength | IK 10 for the cabinet enclosure |
| | IK 08 in the area of the flange knockouts |
| | IK 08 for transparent doors |
| | IK 10 for sheet steel doors |
| Conditions of installation | Indoor installation |
| | Ambient air temperature max. + 40°C |
| | Ambient air temperature min. - 5°C |
| | Operating temperature max. + 55°C |
| | Storage temperature max. + 55°C |
| | Storage temperature min. - 40°C |

| Product features | |
|---|---|
| Housing and door | Sheet steel, RAL 7035, powder-coated |
| | Door opening angle: 180 degrees |
| | Doors with espagnolette closure |
| | Doors for wall-mounting cabinets: with latch plate and 3 mm double bit pin |
| | Doors for floor-standing cabinets: with swivel handle and 3 mm double bit pin |
| Assembly options | Prepared to be fitted with CombiLine S modules and mounting plates |
| Forms of delivery | Build-up cabinets out of sets |

* Powerloss determinated by calculation with the method of IEC 60890 in accordance with IEC 61439-1 par. 10.10.4

# Enclosures
## TwinLine S 43 Rear walls



ESBN0612

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Rear walls** | | | | | |
| With external mounting brackets | | | | | |
| Width 300 mm | 400 | ESBN0304 | 2CPX078100R9999 | | 1 |
| | 600 | ESBN0306 | 2CPX078101R9999 | | 1 |
| | 800 | ESBN0308 | 2CPX078102R9999 | | 1 |
| | 1000 | ESBN0310 | 2CPX078103R9999 | | 1 |
| | 1200 | ESBN0312 | 2CPX078104R9999 | | 1 |
| | 1400 | ESBN0314 | 2CPX078105R9999 | | 1 |
| | 1600 | ESBN0316 | 2CPX078106R9999 | | 1 |
| | 1800 | ESBN0318 | 2CPX078107R9999 | | 1 |
| | 2000 | ESBN0320 | 2CPX078108R9999 | | 1 |
| Width 600 mm | 400 | ESBN0604 | 2CPX078109R9999 | | 1 |
| | 600 | ESBN0606 | 2CPX078110R9999 | | 1 |
| | 800 | ESBN0608 | 2CPX078111R9999 | | 1 |
| | 1000 | ESBN0610 | 2CPX078112R9999 | | 1 |
| | 1200 | ESBN0612 | 2CPX078113R9999 | | 1 |
| | 1400 | ESBN0614 | 2CPX078114R9999 | | 1 |
| | 1600 | ESBN0616 | 2CPX078115R9999 | | 1 |
| | 1800 | ESBN0618 | 2CPX078116R9999 | | 1 |
| | 2000 | ESBN0620 | 2CPX078117R9999 | | 1 |
| Width 800 mm | 400 | ESBN0804 | 2CPX078118R9999 | | 1 |
| | 600 | ESBN0808 | 2CPX078120R9999 | | 1 |
| | 800 | ESBN0808 | 2CPX078120R9999 | | 1 |
| | 1000 | ESBN0810 | 2CPX078121R9999 | | 1 |
| | 1200 | ESBN0812 | 2CPX078122R9999 | | 1 |
| | 1400 | ESBN0814 | 2CPX078123R9999 | | 1 |
| | 1600 | ESBN0816 | 2CPX078124R9999 | | 1 |
| | 1800 | ESBN0818 | 2CPX078125R9999 | | 1 |
| | 2000 | ESBN0820 | 2CPX078126R9999 | | 1 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## TwinLine S 43 Top and bottom plate



ESPL0600



ESCL0600

| Article | Width in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Top and bottom plates** | | | | | |
| Type 1: One plate, all flanges open<br>One plate, all flanges closed with knockouts | | | | | |
| Depth 225 mm | 300 | ESPG0300 | 2CPX078145R9999 | | 2 |
| | 600 | ESPG0600 | 2CPX078146R9999 | | 2 |
| | 800 | ESPG0800 | 2CPX078147R9999 | | 2 |
| Depth 275 mm | 300 | ESPL0300 | 2CPX078148R9999 | | 2 |
| | 600 | ESPL0600 | 2CPX078149R9999 | | 2 |
| | 800 | ESPL0800 | 2CPX078150R9999 | | 2 |
| Type 2: Both plates, all flanges closed with knockouts | | | | | |
| Depth 225 mm | 600 | ESCG0600 | 2CPX078373R9999 | | 2 |
| | 800 | ESCG0800 | 2CPX078374R9999 | | 2 |
| Depth 275 mm | 600 | ESCL0600 | 2CPX078375R9999 | | 2 |
| | 800 | ESCL0800 | 2CPX078376R9999 | | 2 |

# Enclosures

## TwinLine S 43 Side walls / uprights for side-by-side positioning of cabinets



ESSL0012

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Side walls** | | | | | |
| Depth 225 mm | 400 | ESSG0004 | 2CPX078127R9999 | | 2 |
| | 600 | ESSG0006 | 2CPX078128R9999 | | 2 |
| | 800 | ESSG0008 | 2CPX078129R9999 | | 2 |
| | 1000 | ESSG0010 | 2CPX078130R9999 | | 2 |
| | 1200 | ESSG0012 | 2CPX078131R9999 | | 2 |
| | 1400 | ESSG0014 | 2CPX078132R9999 | | 2 |
| | 1600 | ESSG0016 | 2CPX078133R9999 | | 2 |
| | 1800 | ESSG0018 | 2CPX078134R9999 | | 2 |
| | 2000 | ESSG0020 | 2CPX078135R9999 | | 2 |
| Depth 275 mm | 400 | ESSL0004 | 2CPX078136R9999 | | 2 |
| | 600 | ESSL0006 | 2CPX078137R9999 | | 2 |
| | 800 | ESSL0008 | 2CPX078138R9999 | | 2 |
| | 1000 | ESSL0010 | 2CPX078139R9999 | | 2 |
| | 1200 | ESSL0012 | 2CPX078140R9999 | | 2 |
| | 1400 | ESSL0014 | 2CPX078141R9999 | | 2 |
| | 1600 | ESSL0016 | 2CPX078142R9999 | | 2 |
| | 1800 | ESSL0018 | 2CPX078143R9999 | | 2 |
| | 2000 | ESSL0020 | 2CPX078144R9999 | | 2 |



ESUL0012

| | | | | | |
|---|---|---|---|---|---|
| **Uprights for side-by-side positioning of cabinets** | | | | | |
| Depth 225 mm | 400 | ESUG0004 | 2CPX078223R9999 | | 1 |
| | 600 | ESUG0006 | 2CPX078224R9999 | | 1 |
| | 800 | ESUG0008 | 2CPX078225R9999 | | 1 |
| | 1000 | ESUG0010 | 2CPX078226R9999 | | 1 |
| | 1200 | ESUG0012 | 2CPX078227R9999 | | 1 |
| | 1400 | ESUG0014 | 2CPX078228R9999 | | 1 |
| | 1600 | ESUG0016 | 2CPX078229R9999 | | 1 |
| | 1800 | ESUG0018 | 2CPX078230R9999 | | 1 |
| | 2000 | ESUG0020 | 2CPX078231R9999 | | 1 |
| Depth 275 mm | 400 | ESUL0004 | 2CPX078232R9999 | | 1 |
| | 600 | ESUL0006 | 2CPX078233R9999 | | 1 |
| | 800 | ESUL0008 | 2CPX078234R9999 | | 1 |
| | 1000 | ESUL0010 | 2CPX078235R9999 | | 1 |
| | 1200 | ESUL0012 | 2CPX078236R9999 | | 1 |
| | 1400 | ESUL0014 | 2CPX078237R9999 | | 1 |
| | 1600 | ESUL0016 | 2CPX078238R9999 | | 1 |
| | 1800 | ESUL0018 | 2CPX078239R9999 | | 1 |
| | 2000 | ESUL0020 | 2CPX078240R9999 | | 1 |



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures

## TwinLine S 43 Installation set / internal cable container / mounting plates



ESIN0012



ESAI0212



TZM304

| Article | Height in mm | Width in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|---|
| **Installation set with removable frame** | | | | | | |
| For internal configuration in | 400 | | ESIN0004 | 2CPX078420R9999 | | 1 |
| 300 mm, 600 mm, 800 mm wide cabinets | 600 | | ESIN0006 | 2CPX078421R9999 | | 1 |
| | 800 | | ESIN0008 | 2CPX078422R9999 | | 1 |
| | 1000 | | ESIN0010 | 2CPX078423R9999 | | 1 |
| | 1200 | | ESIN0012 | 2CPX078424R9999 | | 1 |
| | 1400 | | ESIN0014 | 2CPX078425R9999 | | 1 |
| | 1600 | | ESIN0016 | 2CPX078426R9999 | | 1 |
| | 1800 | | ESIN0018 | 2CPX078427R9999 | | 1 |
| | 2000 | | ESIN0020 | 2CPX078428R9999 | | 1 |
| **Internal cable container** | | | | | | |
| With hinged internal blind cover | 600 | | ESAI0206 | 2CPX078215R9999 | | 1 |
| For 800 mm wide cabinets | 800 | | ESAI0208 | 2CPX078216R9999 | | 1 |
| | 1000 | | ESAI0210 | 2CPX078217R9999 | | 1 |
| | 1200 | | ESAI0212 | 2CPX078218R9999 | | 1 |
| | 1400 | | ESAI0214 | 2CPX078219R9999 | | 1 |
| | 1600 | | ESAI0216 | 2CPX078220R9999 | | 1 |
| | 1800 | | ESAI0218 | 2CPX078221R9999 | | 1 |
| | 2000 | | ESAI0220 | 2CPX078222R9999 | | 1 |
| **Mounting plates** | | | | | | |
| Sheet steel | 600 | 600 | TZM204 | 2CPX010598R9999 | | 1 |
| 2 mm, galvanised | | 800 | TZM304 | 2CPX010605R9999 | | 1 |
| | 1200 | 600 | TZM208 | 2CPX010602R9999 | | 1 |
| | | 800 | TZM308 | 2CPX010609R9999 | | 1 |
| | 1800 | 600 | RM28 | 2CPX045910R9999 | | 1 |
| | | 800 | RM38 | 2CPX045911R9999 | | 1 |

# Enclosures
## TwinLine S 43 Sheet steel doors



ESAS0612



ESAS0618

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Doors for wall-mounting cabinets,** with latch plate and double bit 3 mm | | | | | |
| **Doors for floor-standing cabinets,** with swivel handle and double bit 3 mm | | | | | |
| Width 300 mm | 400 | ESAS0304 | 2CPX078151R9999 | | 1 |
| | 600 | ESAS0306 | 2CPX078152R9999 | | 1 |
| | 800 | ESAS0308 | 2CPX078153R9999 | | 1 |
| | 1000 | ESAS0310 | 2CPX078154R9999 | | 1 |
| | 1200 | ESAS0312 | 2CPX078155R9999 | | 1 |
| | 1400 | ESAS0314 | 2CPX078156R9999 | | 1 |
| | 1600 | ESAS0316 | 2CPX078157R9999 | | 1 |
| | 1800 | ESAS0318 | 2CPX078158R9999 | | 1 |
| | 2000 | ESAS0320 | 2CPX078159R9999 | | 1 |
| Width 600 mm | 400 | ESAS0604 | 2CPX078160R9999 | | 1 |
| | 600 | ESAS0606 | 2CPX078161R9999 | | 1 |
| | 800 | ESAS0608 | 2CPX078162R9999 | | 1 |
| | 1000 | ESAS0610 | 2CPX078163R9999 | | 1 |
| | 1200 | ESAS0612 | 2CPX078164R9999 | | 1 |
| | 1400 | ESAS0614 | 2CPX078165R9999 | | 1 |
| | 1600 | ESAS0616 | 2CPX078166R9999 | | 1 |
| | 1800 | ESAS0618 | 2CPX078167R9999 | | 1 |
| | 2000 | ESAS0620 | 2CPX078168R9999 | | 1 |
| Width 800 mm | 400 | ESAS0804 | 2CPX078169R9999 | | 1 |
| | 600 | ESAS0806 | 2CPX078170R9999 | | 1 |
| | 800 | ESAS0808 | 2CPX078171R9999 | | 1 |
| | 1000 | ESAS0810 | 2CPX078172R9999 | | 1 |
| | 1200 | ESAS0810 | 2CPX078172R9999 | | 1 |
| | 1400 | ESAS0814 | 2CPX078174R9999 | | 1 |
| | 1600 | ESAS0816 | 2CPX078175R9999 | | 1 |
| | 1800 | ESAS0818 | 2CPX078176R9999 | | 1 |
| | 2000 | ESAS0820 | 2CPX078177R9999 | | 1 |



**Where to find more:**
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# Enclosures
## TwinLine S 43 Transparent doors



ESAT0612

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Doors for wall-mounting cabinets,** with latch plate and double bit 3 mm | | | | | |
| **Doors for floor-standing cabinets,** with swivel handle and double bit 3 mm | | | | | |
| Width 600 mm | 600 | ESAT0606 | 2CPX078178R9999 | | 1 |
| | 800 | ESAT0608 | 2CPX078179R9999 | | 1 |
| | 1000 | ESAT0610 | 2CPX078180R9999 | | 1 |
| | 1200 | ESAT0612 | 2CPX078181R9999 | | 1 |
| | 1400 | ESAT0614 | 2CPX078182R9999 | | 1 |
| | 1600 | ESAT0616 | 2CPX078183R9999 | | 1 |
| | 1800 | ESAT0618 | 2CPX078184R9999 | | 1 |
| | 2000 | ESAT0620 | 2CPX078185R9999 | | 1 |
| Width 800 mm | 600 | ESAT0806 | 2CPX078186R9999 | | 1 |
| | 800 | ESAT0808 | 2CPX078187R9999 | | 1 |
| | 1000 | ESAT0810 | 2CPX078188R9999 | | 1 |
| | 1200 | ESAT0812 | 2CPX078189R9999 | | 1 |
| | 1400 | ESAT0814 | 2CPX078190R9999 | | 1 |
| | 1600 | ESAT0816 | 2CPX078191R9999 | | 1 |
| | 1800 | ESAT0818 | 2CPX078192R9999 | | 1 |
| | 2000 | ESAT0820 | 2CPX078193R9999 | | 1 |



ESAT2618

| | | | | | |
|---|---|---|---|---|---|
| Width 800 mm | 600 | ESAT2606 | 2CPX078194R9999 | | 1 |
| For 800 mm wide cabinet | 800 | ESAT2608 | 2CPX078195R9999 | | 1 |
| With internal cable container | 1000 | ESAT2610 | 2CPX078196R9999 | | 1 |
| | 1200 | ESAT2612 | 2CPX078197R9999 | | 1 |
| | 1400 | ESAT2614 | 2CPX078198R9999 | | 1 |
| | 1600 | ESAT2616 | 2CPX078199R9999 | | 1 |
| | 1800 | ESAT2618 | 2CPX078200R9999 | | 1 |
| | 2000 | ESAT2620 | 2CPX078201R9999 | | 1 |

# Enclosures
## TwinLine S 43 Flanges



TZ101

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **Membrane flange** | | | | |
| Material: plastic | | | | |
| For cable sections 2 x 6 - 32.5 mm, 2 x 6 - 25 mm, 4 x 6 - 19 mm, 10 x 6 - 15 mm, 2 x 6 - 12 mm, 31 x 6 - 11 mm, 1 x 6 - 7 mm | TZ101 | 2CPX010450R9999 | | 1 |
| | TZ101P10 | 2CPX010451R9999 | | 10 |
| | TZ101P100 | 2CPX010826R9999 | | 100 |



TZ102



TZ103

| | | | | |
|---|---|---|---|---|
| **Flanges for M screw fittings** | | | | |
| Material: plastic | | | | |
| 1 x M 63 / M 50, 2 x M 32 / M 20, 5 x M 25, 5 x M 20 | TZ102 | 2CPX010452R9999 | | 1 |
| | TZ102P10 | 2CPX010453R9999 | | 10 |
| 4 x M20 / M25, 18 x M20 | TZ103 | 2CPX010454R9999 | | 1 |
| | TZ103P10 | 2CPX010455R9999 | | 10 |



TZ110



TZ111



TZ112



TZ104



TZ105

| | | | | |
|---|---|---|---|---|
| **Flanges with cable sleeves** | | | | |
| Material: plastic | | | | |
| Flanges with 8 cable sleeves<br>For cable sections 8 x 13 - 34 mm | TZ110 | 2CPX010850R9999 | | 1 |
| Flanges with 11 cable sleeves<br>For cable sections 1 x 14 - 54 mm, 3 x 13 - 34 mm, 3 x 13 - 26.5 mm, 4 x 5 - 21 mm | TZ111 | 2CPX010851R9999 | | 1 |
| Flange with 1 cable sleeve<br>For cable sections 1 x 14 - 68 mm | TZ112 | 2CPX010852R9999 | | 1 |
| Flange with 2 cable sleeves<br>For cable sections 2 x 14 - 68 mm | TZ104 | 2CPX010456R9999 | | 1 |
| Flange with 3 cable sleeves<br>For cable sections 3 x 14 - 54 mm | TZ105 | 2CPX010457R9999 | | 1 |



TZ107



TZ106

| | | | | |
|---|---|---|---|---|
| **Closing flanges** | | | | |
| Material: plastic | TZ107 | 2CPX010460R9999 | | 1 |
| | TZ107P10 | 2CPX010461R9999 | | 10 |
| Material: sheet steel | TZ106 | 2CPX010458R9999 | | 1 |
| | TZ106P10 | 2CPX010459R9999 | | 10 |

# Enclosures
## TwinLine S 43 Plinth



ESAG0605



ESAL0610

| Article | Width mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Plinth, height 50 mm, color RAL 7012** | | | | | |
| Depth 225 mm | 300 | ESAG0305 | 2CPX078202R9999 | | 1 |
| | 600 | ESAG0605 | 2CPX078204R9999 | | 1 |
| | 800 | ESAG0805 | 2CPX078206R9999 | | 1 |
| Depth 275 mm | 300 | ESAL0305 | 2CPX078208R9999 | | 1 |
| | 600 | ESAL0605 | 2CPX078210R9999 | | 1 |
| | 800 | ESAL0805 | 2CPX078212R9999 | | 1 |
| **Plinth, height 100 mm, color RAL 7012** | | | | | |
| Depth 225 mm | 300 | ESAG0310 | 2CPX078203R9999 | | 1 |
| Side knockouts | 600 | ESAG0610 | 2CPX078205R9999 | | 1 |
| 1 x M 32 / M 50 or 80 x 80 mm | 800 | ESAG0810 | 2CPX078207R9999 | | 1 |
| Depth 275 mm | 300 | ESAL0310 | 2CPX078209R9999 | | 1 |
| Side knockouts | 600 | ESAL0610 | 2CPX078211R9999 | | 1 |
| 1 x M 32 / M 50 or 80 x 80 mm | 800 | ESAL0810 | 2CPX078213R9999 | | 1 |

# Enclosures
## TwinLine S 43 Lock replacement parts


ESAC1001


ESAC1002


ESAC1003


ESAC1004


ESAC1005


ESAC1006


ESAC1007


ESAC1008


ESAC1009


ESAC1010


ESAC1011


ESAC1013


TZ517


TZ518


ZH130


ZH132


ZH134


ZH137

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **Swivel handle and operating pins** | | | | |
| Swivel handle with double bit 3 mm*[1] | ESAC1001 | 2CPX010900R9999 | | 1 |
| Double bit 3 mm*[1] | ESAC1002 | 2CPX010901R9999 | | 1 |
| Double bit 5 mm | ESAC1003 | 2CPX010902R9999 | | 1 |
| Triangular 7 mm | ESAC1004 | 2CPX010903R9999 | | 1 |
| Triangular 8 mm | ESAC1005 | 2CPX010904R9999 | | 1 |
| Square 6 mm | ESAC1006 | 2CPX010905R9999 | | 1 |
| Square 7 mm | ESAC1007 | 2CPX010906R9999 | | 1 |
| Square 8 mm | ESAC1008 | 2CPX010907R9999 | | 1 |
| EK333 and key | ESAC1009 | 2CPX010908R9999 | | 1 |
| FIST type insert (FIAT) | ESAC1010 | 2CPX010909R9999 | | 1 |
| FIAT key | ESAC1013 | 2CPX010912R9999 | | 1 |
| Ronis 455 and key | ESAC1011 | 2CPX010910R9999 | | 1 |
| Ronis 405 and key | ESAC1012 | 2CPX010911R9999 | | 1 |
| **Latch plates and operating pins** | | | | |
| For operating pin 3 mm (standard)*[2] and 5 mm | TZ517 | 2CPX010926R9999 | | 1 |
| For triangular and square operating pin | TZ518 | 2CPX010927R9999 | | 1 |
| Double bit 3 mm*[2] | ZH130 | 2CPX060490R9999 | | 1 |
| Double bit 5 mm | ZH131 | 2CPX060491R9999 | | 1 |
| Triangular 7 mm | ZH132 | 2CPX060492R9999 | | 1 |
| Triangular 8 mm | ZH133 | 2CPX060493R9999 | | 1 |
| Square 6 mm | ZH134 | 2CPX060494R9999 | | 1 |
| Square 7 mm | ZH135 | 2CPX060495R9999 | | 1 |
| Square 8 mm | ZH136 | 2CPX060496R9999 | | 1 |
| Daimler-Benz | ZH137 | 2CPX060497R9999 | | 1 |

*[1] In scope of delivery of doors for floor-standing cabinets
*[2] In scope of delivery of doors for wall-mounting cabinets



ZH91



ZH160



ZH157



ZH162



ZH165



ESAC2004



ESAC2008



TZ511



TZ501

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| Universal key<br>Double bit 3 mm/5 mm<br>Triangular 8 mm, square 6 mm/8 mm | ZH91 | 2CPX066091R9999 | | 1 |
| Double bit 3 mm* | ZH160 | 2CPX060660R9999 | | 1 |
| Double bit 5 mm | ZH161 | 2CPX060661R9999 | | 1 |
| Triangular 7 mm | ZH157 | 2CPX060657R9999 | | 1 |
| Triangular 8 mm | ZH158 | 2CPX060658R9999 | | 1 |
| Square 6 mm | ZH162 | 2CPX060662R9999 | | 1 |
| Square 7 mm | ZH163 | 2CPX060663R9999 | | 1 |
| Square 8 mm | ZH164 | 2CPX060664R9999 | | 1 |
| Daimler-Benz | ZH165 | 2CPX060665R9999 | | 1 |
| **Espagnolette closure*** | | | | |
| Closure for door height 400 mm | ESAC2004 | 2CPX010913R9999 | | 1 |
| Espagnolette closure height 600 mm | ESAC2006 | 2CPX010914R9999 | | 1 |
| Espagnolette closure height 800 mm | ESAC2008 | 2CPX010915R9999 | | 1 |
| Espagnolette closure height 1000 mm | ESAC2010 | 2CPX010916R9999 | | 1 |
| Espagnolette closure height 1200 mm | ESAC2012 | 2CPX010917R9999 | | 1 |
| Espagnolette closure height 1400 mm | ESAC2014 | 2CPX010918R9999 | | 1 |
| Espagnolette closure height 1600 mm | ESAC2016 | 2CPX010919R9999 | | 1 |
| Espagnolette closure height 1800 mm | ESAC2018 | 2CPX010920R9999 | | 1 |
| Espagnolette closure height 2000 mm | ESAC2020 | 2CPX010921R9999 | | 1 |
| Espagnolette guide* | TZ511 | 2CPX010495R9999 | | 1 |
| Shoe*<br>For espagnolette closure | TZ501 | 2CPX010485R9999 | | 1 |

*Accessory included in the scope of delivery

# Enclosures
## TwinLine S 43 General accessories


ESAC3001P2


ESAC3003P4


ESAC3004P2


TZ637


TZ628P10


ESAC3002


TZ626


TZ601


TZ604


TZ605

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| Mounting brackets 2 pcs*<br>To mount the cabinet to the wall,<br>to connect the plinth with the back of the cabinet or<br>to connect cabinets in the back when using ESAC3002 | ESAC3001P2 | 2CPX078410R9999 | | 2 |
| Transport lugs 4 pcs | ESAC3003P4 | 2CPX078412R9999 | | 4 |
| Lifting reinforcement for side-by-side structures 2 pcs<br>For transporting side-by-side structures | ESAC3004P2 | 2CPX078413R9999 | | 2 |
| Door hinge: 180 degree* | TZ637 | 2CPX078414R9999 | | 1 |
| Closing plugs for hinge cutout | TZ628P10 | 2CPX010854R9999 | | 1 |
| Connection set for stacking cabinets | ESAC3002 | 2CPX078411R9999 | | 1 |
| Protective frame for stacking cabinets | TZ626 | 2CPX010778R9999 | | 1 |
| Mounting rails*<br>For mounting frame holder | TZ601 | 2CPX010779R9999 | | 1 |
| Mounting frame holder centre*<br>For internal and external cable container | TZ604 | 2CPX010782R9999 | | 1 |
| Mounting frame holder*<br>left or right | TZ605 | 2CPX010783R9999 | | 1 |

*Accessory included in the scope of delivery



ZL8



ZA16



ZA116



ZA6



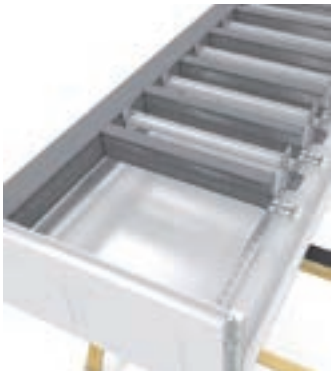
ZA5



ZA123

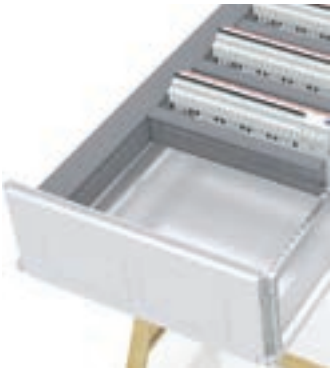
| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| Door earthing set<br>10 mm² | ZL8 | 2CPX038001R9999 | | 1 |
| Spray paint can<br>Colour RAL 7035, 150 ml | ZA16 | 2CPX038235R9999 | | 1 |
| Touch-up applicator<br>Colour RAL 7035, 12 ml | ZA116 | 2CPX039042R9999 | | 1 |
| Document holder DIN A4 | ZA6 | 2CPX038227R9999 | | 1 |
| Self-adhesive with transparent sleeve | ZA6P10 | 2CPX062380R9999 | | 10 |
| Self-adhesive with transparent sleeve and reinforced back | ZA61P10 | 2CPX062375R9999 | | 10 |
| Document holder DIN A4 | ZA13 | 2CPX038233R9999 | | 1 |
| Self-adhesive | ZA13P10 | 2CPX062381R9999 | | 10 |
| Document holder DIN A5 | ZA5 | 2CPX038228R9999 | | 1 |
| Self-adhesive | ZA5P10 | 2CPX062382R9999 | | 10 |
| Document holder support plate | | | | |
| For document holder ZA13. to screw on to the door strengthening profiles | ZA123 | 2CPX038471R9999 | | 1 |
| For document holder ZA5. to screw on to the door strengthening profiles | ZA125 | 2CPX038472R9999 | | 1 |

# CombiLine S distribution panel system
## Product benefits





### One internal configuration system for all cabinets
All internal configuration and the busbar system for the cable containers up to 400 A fits in both cabinet dephts. The internal configuration up to 800 A and the busbar system behind the device area also fits in a 275 mm cabinet depht.





### Flexible in assembling
With its new mounting concept CombiLine S provides more flexibility and access for installation and wiring. Placed horizontally on two trestles, the assembly and wiring is very comfortable. An other option is to swing-out the whole internal configuration to have access from all sides.






### Assembly of internal configuration
CombiLine S provide a time-saving installation due the hook-in technology. This quick assembly limits the numbers of screws. Markers in 50 mm grid are on the mounting profiles for simple positioning.

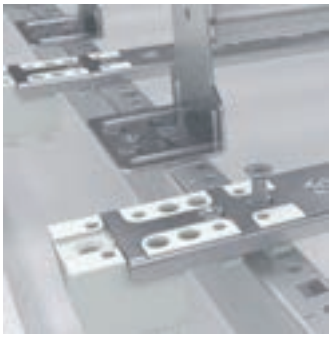


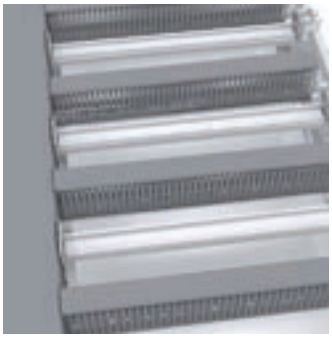


### Easy handling of covers
Time-saving fixation and adjustment as well as the simple closure system with 1/4 turn quick-lock provides easy handling
of the covers and standard earth connection. When using devices in the covers a safe earth connection is guaranteed through 6 mm² cable with ring shoes on both sides.
Optimal accessibility give the hinge set with 90 degree opening angle.

# CombiLine S distribution panel system
## Product benefits







### Wiring system
One support for different dimensions of wiring ducts; to have the same level for horizontal and vertical usage. An additional profile for stabilization of wiring duct and for mounting wire holders is available.

### Optimal accessibility and ease of installation
The removable frame as standard gives the possibility to remove all covers in one handling and provides a quick access.

### Form of internal separation up to form 2b
For the busbar sytem behind the device area is a horizontal transparent partition available. To separate the busbar system in external cable container it is possible to use a vertical separation.

# CombiLine S distribution panel system
## The right module for ervery type of Application

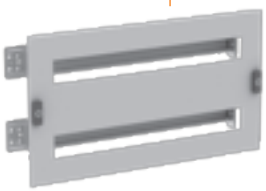




Tmax breakers



OT breakers



DIN rail components



Standard covers



Covers for measuring instruments



Mounting plates



Internal form of separation form 2b



Busbar systems



Accessories



**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

# Enclosures
## CombiLine S distribution panel system Technical specifications

| Technical specifications | |
|---|---|
| Standards / regulations | IEC 61439 -1/-2/-3 |
| Protection class | I, earthed |
| Degree of protection | IPXXC |

| Electrical characteristics | |
|---|---|
| Rated impulse withstand voltage ($U_{imp}$) | 6 kV |
| Overvoltage category | III |
| Pollution degree | 3 |
| Rated current ($I_n$) | up to 800 A |
| Rated peak withstand current ($I_{pk}$) | up to 74 kA |
| Rated short-time withstand current ($I_{cw}$) 1.0 sec. | up to 35 kA |
| Rated frequency (f) | 50 - 60 Hz |
| Rated insulation voltage ($U_i$) | 1000 V |
| Rated operational voltage ($U_e$) | 690 V |

# Enclosures
## CombiLine S for moulded case circuit breaker Tmax, horizontal



CHCC1511



CHDC1511

### Tmax breaker horizontal 3-/4-pole

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 3*-/4-pole breaker
- Cover with 1/4 turn quick-lock

| Width mm | Height mm | For device | | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Order details | | Price | Pcs. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $I_n$ max A | Type | | | | Type | Order code | | |
| 600 | 150 | 160 | Tmax XT1 | 1 | 3/4 | 225 | CHCA1511 | 2CPX078241R9999 | | 1 |
| | 200 | 160 | Tmax XT2 | 1 | 3/4 | 225 | CHCB1511 | 2CPX078242R9999 | | 1 |
| | 200 | 250 | Tmax XT3 | 1 | 3/4 | 225 | CHCC1511 | 2CPX078243R9999 | | 1 |
| | 200 | 250 | Tmax XT4 | 1 | 3/4 | 225 | CHCD1511 | 2CPX078244R9999 | | 1 |
| | 200 | 320 | Tmax T4 | 1 | 3/4 | 225 | CHCE1511 | 2CPX078245R9999 | | 1 |
| | 300 | 630 | Tmax T5 | 1 | 3/4 | 275 | CHCF1511 | 2CPX078246R9999 | | 1 |
| | 400 | 800 | Tmax T6 | 1 | 3/4 | 275 | CHCG1511 | 2CPX078247R9999 | | 1 |
| 800 | 150 | 160 | Tmax XT1 | 1 | 3/4 | 225 | CHDA1511 | 2CPX078248R9999 | | 1 |
| | 200 | 160 | Tmax XT2 | 1 | 3/4 | 225 | CHDB1511 | 2CPX078249R9999 | | 1 |
| | 200 | 250 | Tmax XT3 | 1 | 3/4 | 225 | CHDC1511 | 2CPX078250R9999 | | 1 |
| | 200 | 250 | Tmax XT4 | 1 | 3/4 | 225 | CHDD1511 | 2CPX078251R9999 | | 1 |
| | 200 | 320 | Tmax T4 | 1 | 3/4 | 225 | CHDE1511 | 2CPX078252R9999 | | 1 |
| | 300 | 630 | Tmax T5 | 1 | 3/4 | 275 | CHDF1511 | 2CPX078253R9999 | | 1 |
| | 400 | 800 | Tmax T6 | 1 | 3/4 | 275 | CHDG1511 | 2CPX078254R9999 | | 1 |

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.



CHCC1611



CHDC1611

### Tmax breaker horizontal 4-pole + RC sel.

Unequipped set for ABB Tmax as an incomer or outgoing breaker

- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 4-pole breaker and RC Sel.
- Cover with 1/4 turn quick-lock

| Width mm | Height mm | For device | | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Order details | | Price | Pcs. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $I_n$ max A | Type | | | | Type | Order code | | |
| 600 | 200 | 160 | Tmax XT1 | 1 | 4 + RC sel. | 225 | CHCA1611 | 2CPX078255R9999 | | 1 |
| | 200 | 160 | Tmax XT2 | 1 | 4 + RC sel. | 225 | CHCB1611 | 2CPX078256R9999 | | 1 |
| | 200 | 250 | Tmax XT3 | 1 | 4 + RC sel. | 225 | CHCC1611 | 2CPX078257R9999 | | 1 |
| | 200 | 250 | Tmax XT4 | 1 | 4 + RC sel. | 225 | CHCD1611 | 2CPX078258R9999 | | 1 |
| | 200 | 320 | Tmax T4 | 1 | 4 + RC sel. | 225 | CHCE1611 | 2CPX078259R9999 | | 1 |
| | 300 | 630 | Tmax T5 | 1 | 4 + RC sel. | 275 | CHCF1611 | 2CPX078260R9999 | | 1 |
| 800 | 200 | 160 | Tmax XT1 | 1 | 4 + RC sel. | 225 | CHDA1611 | 2CPX078261R9999 | | 1 |
| | 200 | 160 | Tmax XT2 | 1 | 4 + RC sel. | 225 | CHDB1611 | 2CPX078262R9999 | | 1 |
| | 200 | 250 | Tmax XT3 | 1 | 4 + RC sel. | 225 | CHDC1611 | 2CPX078263R9999 | | 1 |
| | 200 | 250 | Tmax XT4 | 1 | 4 + RC sel. | 225 | CHDD1611 | 2CPX078264R9999 | | 1 |
| | 200 | 320 | Tmax T4 | 1 | 4 + RC sel. | 225 | CHDE1611 | 2CPX078265R9999 | | 1 |
| | 300 | 630 | Tmax T5 | 1 | 4 + RC sel. | 275 | CHDF1611 | 2CPX078266R9999 | | 1 |

# Enclosures
## CombiLine S for moulded case circuit breaker Tmax, vertical



CVAC1511



CVCC1511



DVDC1511

### Tmax breaker vertical 3-/4-pole

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 3*-/4-pole breaker
- Cover with 1/4 turn quick-lock

| Width mm | Height mm | For device | | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Order details | | Price | Pcs. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $I_n$ max A | Type | | | | Type | Order code | | |
| 300 | 300 | 160 | Tmax XT1 | 1 | 3/4 | 225 | CVAA1511 | 2CPX078267R9999 | | 1 |
| | 300 | 250 | Tmax XT2 | 1 | 3/4 | 225 | CVAB1511 | 2CPX078268R9999 | | 1 |
| | 300 | 250 | Tmax XT3 | 1 | 3/4 | 225 | CVAC1511 | 2CPX078269R9999 | | 1 |
| | 300 | 250 | Tmax XT4 | 1 | 3/4 | 225 | CVAD1511 | 2CPX078270R9999 | | 1 |
| | 350 | 320 | Tmax T4 | 1 | 3/4 | 225 | CVAH1511 | 2CPX078271R9999 | | 1 |
| | 350 | 630 | Tmax T5 | 1 | 3/4 | 275 | CVAH1511 | 2CPX078271R9999 | | 1 |
| 600 | 300 | 160 | Tmax XT1 | 1 | 3/4 | 225 | CVCA1511 | 2CPX078272R9999 | | 1 |
| | 300 | 160 | Tmax XT2 | 1 | 3/4 | 225 | CVCB1511 | 2CPX078273R9999 | | 1 |
| | 300 | 250 | Tmax XT3 | 1 | 3/4 | 225 | CVCC1511 | 2CPX078274R9999 | | 1 |
| | 300 | 250 | Tmax XT4 | 1 | 3/4 | 225 | CVCD1511 | 2CPX078275R9999 | | 1 |
| | 350 | 320 | Tmax T4 | 1 | 3/4 | 225 | CVCH1511 | 2CPX078276R9999 | | 1 |
| | 350 | 630 | Tmax T5 | 1 | 3/4 | 275 | CVCH1511 | 2CPX078276R9999 | | 1 |
| | 450 | 800 | Tmax T6 | 1 | 3/4 | 275 | CVCG1511 | 2CPX078277R9999 | | 1 |
| 800 | 300 | 160 | Tmax XT1 | 1 | 3/4 | 225 | CVDA1511 | 2CPX078278R9999 | | 1 |
| | 300 | 160 | Tmax XT2 | 1 | 3/4 | 225 | CVDB1511 | 2CPX078279R9999 | | 1 |
| | 300 | 250 | Tmax XT3 | 1 | 3/4 | 225 | CVDC1511 | 2CPX078280R9999 | | 1 |
| | 300 | 250 | Tmax XT4 | 1 | 3/4 | 225 | CVDD1511 | 2CPX078281R9999 | | 1 |
| | 350 | 320 | Tmax T4 | 1 | 3/4 | 225 | CVDH1511 | 2CPX078282R9999 | | 1 |
| | 350 | 630 | Tmax T5 | 1 | 3/4 | 275 | CVDH1511 | 2CPX078282R9999 | | 1 |
| | 450 | 800 | Tmax T6 | 1 | 3/4 | 275 | CVDG1511 | 2CPX078283R9999 | | 1 |

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

# Enclosures
## CombiLine S for moulded case circuit breaker Tmax, vertical



CVAC1611

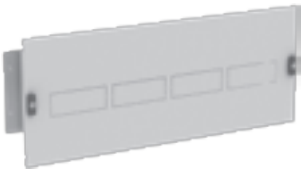


DVDC1611

**Tmax breaker vertical 4-pole + RC sel.**

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 4-pole breaker and RC Sel.
- Cover with 1/4 turn quick-lock

| | | For device | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Type | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 300 | 300 | 160 | Tmax XT1 | 1 | 4 + RC sel. | 225 | CVAA1611 | 2CPX078284R9999 | | 1 |
| | 350 | 250 | Tmax XT2 | 1 | 4 + RC sel. | 225 | CVAB1611 | 2CPX078285R9999 | | 1 |
| | 350 | 250 | Tmax XT3 | 1 | 4 + RC sel. | 225 | CVAC1611 | 2CPX078286R9999 | | 1 |
| | 350 | 250 | Tmax XT4 | 1 | 4 + RC sel. | 225 | CVAD1611 | 2CPX078287R9999 | | 1 |
| | 450 | 320 | Tmax T4 | 1 | 4 + RC sel. | 225 | CVAE1611 | 2CPX078288R9999 | | 1 |
| | 450 | 630 | Tmax T5 | 1 | 4 + RC sel. | 275 | CVAF1611 | 2CPX078289R9999 | | 1 |
| 600 | 300 | 160 | Tmax XT1 | 1 | 4 + RC sel. | 225 | CVCA1611 | 2CPX078290R9999 | | 1 |
| | 350 | 160 | Tmax XT2 | 1 | 4 + RC sel. | 225 | CVCB1611 | 2CPX078291R9999 | | 1 |
| | 350 | 250 | Tmax XT3 | 1 | 4 + RC sel. | 225 | CVCC1611 | 2CPX078292R9999 | | 1 |
| | 350 | 250 | Tmax XT4 | 1 | 4 + RC sel. | 225 | CVCD1611 | 2CPX078293R9999 | | 1 |
| | 450 | 320 | Tmax T4 | 1 | 4 + RC sel. | 225 | CVCE1611 | 2CPX078294R9999 | | 1 |
| | 450 | 630 | Tmax T5 | 1 | 4 + RC sel. | 275 | CVCF1611 | 2CPX078295R9999 | | 1 |
| 800 | 300 | 160 | Tmax XT1 | 1 | 4 + RC sel. | 225 | CVDA1611 | 2CPX078296R9999 | | 1 |
| | 350 | 160 | Tmax XT2 | 1 | 4 + RC sel. | 225 | CVDB1611 | 2CPX078297R9999 | | 1 |
| | 350 | 250 | Tmax XT3 | 1 | 4 + RC sel. | 225 | CVDC1611 | 2CPX078298R9999 | | 1 |
| | 350 | 250 | Tmax XT4 | 1 | 4 + RC sel. | 225 | CVDD1611 | 2CPX078299R9999 | | 1 |
| | 450 | 320 | Tmax T4 | 1 | 4 + RC sel. | 225 | CVDE1611 | 2CPX078300R9999 | | 1 |
| | 450 | 630 | Tmax T5 | 1 | 4 + RC sel. | 275 | CVDF1611 | 2CPX078301R9999 | | 1 |



CVDC4511



CVCB3511

## Tmax breaker vertical side-by-side

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with knock-out for 3*-/4-pole breaker side by side
- Cover with 1/4 turn quick-lock

| | | For device | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Type | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 600 | 300 | 250 | Tmax XT1 | 3 | 3/4 | 225 | CVCA3511 | 2CPX078398R9999 | | 1 |
| | 300 | 250 | Tmax XT2 | 3 | 3/4 | 225 | CVCB3511 | 2CPX078399R9999 | | 1 |
| | 300 | 250 | Tmax XT3 | 3 | 3/4 | 225 | CVCC3511 | 2CPX078400R9999 | | 1 |
| | 300 | 250 | Tmax XT4 | 3 | 3/4 | 225 | CVCD3511 | 2CPX078401R9999 | | 1 |
| 800 | 300 | 250 | Tmax XT1 | 4 | 3/4 | 225 | CVDA4511 | 2CPX078402R9999 | | 1 |
| | 300 | 250 | Tmax XT2 | 4 | 3/4 | 225 | CVDB4511 | 2CPX078403R9999 | | 1 |
| | 300 | 250 | Tmax XT3 | 4 | 3/4 | 225 | CVDC4511 | 2CPX078404R9999 | | 1 |
| | 300 | 250 | Tmax XT4 | 4 | 3/4 | 225 | CVDD4511 | 2CPX078405R9999 | | 1 |

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

# Enclosures
## CombiLine S for switch disconnector OT, horizontal



CHCQ1513



CHDQ1513

### OT switch disconnector horizontal

- Unequipped set for ABB OT...E03/04P as an incomer or outgoing switch
- Sheet steel cover with cut out for rotary handle in top of the center
- Cover fixed with one 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

| Width mm | Height mm | For device | | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Order details | | Price | Pcs. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $I_n$ max A | Type | | | | Type | Order code | | |
| 600 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CHCQ1513 | 2CPX078302R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CHCR1513 | 2CPX078377R9999 | | 1 |
| 800 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CHDQ1513 | 2CPX078303R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CHDR1513 | 2CPX078378R9999 | | 1 |

# Enclosures
## CombiLine S for switch disconnector OT, vertical



CVAP1513



CVDQ1513

### OT switch disconnector vertical left

- Unequipped set for ABB OT...E03/04P as an incomer or outgoing switch
- Sheet steel cover with cut out for rotary handle on the left side
- Cover fixed with one 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

| | | For device | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Type | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 300 | 350 | 250 | OT200, OT250 | 1 | 3/4 | 225 | CVAP1513 | 2CPX078304R9999 | | 1 |
| 600 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CVCQ1513 | 2CPX078305R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CVCR1513 | 2CPX078379R9999 | | 1 |
| 800 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CVDQ1513 | 2CPX078306R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CVDR1513 | 2CPX078380R9999 | | 1 |



CVAP1514



CVDQ1514

### OT switch disconnector vertical center

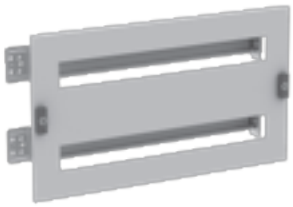
- Unequipped set for ABB OT...E12/22P as an incomer or outgoing switch vertical
- Sheet steel cover with cut out for rotary handle in the center
- Cover fixed with 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

| | | For device | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Type | Numbers of breakers | Numbers of poles | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 300 | 350 | 250 | OT200, OT250 | 1 | 3/4 | 225 | CVAP1514 | 2CPX078307R9999 | | 1 |
| 600 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CVCQ1514 | 2CPX078308R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CVCR1514 | 2CPX078381R9999 | | 1 |
| 800 | 350 | 400 | OT200, OT250, OT315, OT400 | 1 | 3/4 | 225 | CVDQ1514 | 2CPX078309R9999 | | 1 |
| | 500 | 800 | OT630, OT800 | 1 | 3/4 | 275 | CVDR1514 | 2CPX078382R9999 | | 1 |

# Enclosures
## CombiLine S for DIN rail components



CKDB1615



CKDB2630

### DIN rail distance 150 mm for S200

- Unequipped set for DIN rail components
- Din rail distance 150 mm

- System pro *M* S200, switch OT160 (front level)
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L
- Cover with 1/4 turn quick-lock

| Additional information | | | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Space units (SU) | Din rail distance | Numbers of rows | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 600 | 150 | 160 | 24 | 150 | 1 | 225 | CKDB1615 | 2CPX078318R9999 | | 1 |
| 800 | 150 | 160 | 36 | 150 | 1 | 225 | CKDB1815 | 2CPX078319R9999 | | 1 |
| 600 | 300 | 160 | 48 | 150 | 2 | 225 | CKDB2630 | 2CPX078406R9999 | | 1 |
| 800 | 300 | 160 | 72 | 150 | 2 | 225 | CKDB2830 | 2CPX078407R9999 | | 1 |



CKDB1620

### DIN rail distance 200 mm for S200, Tmax

- Unequipped set for DIN rail components
- Din rail distance 200 mm
- System pro *M* S200, switch OT160 (front level)
- Tmax, XT1, XT3 breaker 3+4 pole version (back level)
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L,
- A depth adapter enables the same depth of MCCB and DIN rail components S200
- Cover is with DIN cut-out

| Additional information | | | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Space units (SU) | Din rail distance | Numbers of rows | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 300 | 200 | 250 | 12 | 200 | 1 | 225 | CKDC1320 | 2CPX078320R9999 | | 1 |
| 600 | 200 | 250 | 24 | 200 | 1 | 225 | CKDC1620 | 2CPX078321R9999 | | 1 |
| 800 | 200 | 250 | 36 | 200 | 1 | 225 | CKDC1820 | 2CPX078322R9999 | | 1 |



CKDR1630

## DIN rail for Tmax 4 pole + RC sel.

- Unequipped set for Tmax breaker, XT1, XT3 4 pole with RC sel.
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L,
- A depth adapter enables the same depth of MCCB and DIN rail components S200
- Cover is with DIN cut-out
- Cover fixed with 1/4 turn quick-lock

| Additional information | | | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Space units (SU) | Din rail distance | Numbers of rows | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 600 | 300 | 250 | 24 | 300 | 1 | 225 | CKDR1630 | 2CPX078383R9999 | | 1 |
| 800 | 300 | 250 | 36 | 300 | 1 | 225 | CKDR1830 | 2CPX078384R9999 | | 1 |

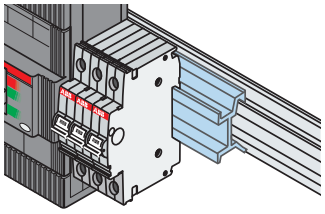


CKDU1630

## DIN rail for Unifix H

- Unequipped set for System Unifix H
- The System Unifix H can be fixed on supports
- Cover is with DIN cut-out
- Cover fixed with one 1/4 turn quick-lock

| Additional information | | | | | | | Order details | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Width mm | Height mm | $I_n$ max A | Space units (SU) | Din rail distance | Numbers of rows | Minimum cabinet depth | Type | Order code | Price | Pcs. |
| 600 | 300 | 250 | 24 | 300 | 1 | 225 | CKDU1630 | 2CPX078385R9999 | | 1 |
| 800 | 300 | 250 | 36 | 300 | 1 | 225 | CKDU1830 | 2CPX078386R9999 | | 1 |



| Article | Width in mm | Order details | | Price | Pcs. |
|---|---|---|---|---|---|
| | | Type | Order code | | |
| Depth adapters<br>Enables the depth of miniature circuit-breakers to be adapted to that of moulded-case circuit-breakers mounted on the same DIN rail.<br><br>Depth adapters for<br>Tmax XT1-XT3 | 600 | AP6000 | | | 1 |

# Enclosures
## CombiLine S covers closed



CACP3030



CACP6030



CACP8030



CACP6060



CACP8060

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Cover closed**<br>Material sheet steel. With one 1/4 turn quick-lock per side | | | | | |
| Width 300 mm | 50 | CACP3005 | 2CPX078340R9999 | | 1 |
| | 100 | CACP3010 | 2CPX078341R9999 | | 1 |
| | 150 | CACP3015 | 2CPX078342R9999 | | 1 |
| | 200 | CACP3020 | 2CPX078343R9999 | | 1 |
| | 250 | CACP3025 | 2CPX078344R9999 | | 1 |
| | 300 | CACP3030 | 2CPX078345R9999 | | 1 |
| | 400 | CACP3040 | 2CPX078346R9999 | | 1 |
| Width 600 mm | 50 | CACP6005 | 2CPX078350R9999 | | 1 |
| | 100 | CACP6010 | 2CPX078351R9999 | | 1 |
| | 150 | CACP6015 | 2CPX078352R9999 | | 1 |
| | 200 | CACP6020 | 2CPX078353R9999 | | 1 |
| | 250 | CACP6025 | 2CPX078354R9999 | | 1 |
| | 300 | CACP6030 | 2CPX078355R9999 | | 1 |
| | 400 | CACP6040 | 2CPX078356R9999 | | 1 |
| Width 800 mm | 50 | CACP8005 | 2CPX078360R9999 | | 1 |
| | 100 | CACP8010 | 2CPX078361R9999 | | 1 |
| | 150 | CACP8015 | 2CPX078362R9999 | | 1 |
| | 200 | CACP8020 | 2CPX078363R9999 | | 1 |
| | 250 | CACP8025 | 2CPX078364R9999 | | 1 |
| | 300 | CACP8030 | 2CPX078365R9999 | | 1 |
| | 400 | CACP8040 | 2CPX078366R9999 | | 1 |
| **Cover closed**<br>Material sheet steel. With two 1/4 turn quick-lock per side | | | | | |
| Width 300 mm | 500 | CACP3050 | 2CPX078347R9999 | | 1 |
| | 600 | CACP3060 | 2CPX078348R9999 | | 1 |
| | 800 | CACP3080 | 2CPX078349R9999 | | 1 |
| Width 600 mm | 500 | CACP6050 | 2CPX078357R9999 | | 1 |
| | 600 | CACP6060 | 2CPX078358R9999 | | 1 |
| | 800 | CACP6080 | 2CPX078359R9999 | | 1 |
| Width 800 mm | 500 | CACP8050 | 2CPX078367R9999 | | 1 |
| | 600 | CACP8060 | 2CPX078368R9999 | | 1 |
| | 800 | CACP8080 | 2CPX078369R9999 | | 1 |

# Enclosures
## CombiLine S covers for measuring instruments



CKUA6020



CKUB6020



CKUC6020



CKUD6020



CAE06



CAHCP10

| Article | Width in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Covers for universal measuring instruments** | | | | | |
| For 2 measuring instrument 72 x 72 mm<br>Cover fixed with one 1/4 turn screws on every side<br>Material sheet steel<br>Height 200 mm | 600 | CKUA6020 | 2CPX078310R9999 | | 1 |
| | 800 | CKUA8020 | 2CPX078311R9999 | | 1 |
| For 2 measuring instrument 96 x 96 mm<br>Cover fixed with one 1/4 turn screws on every side<br>Material sheet steel<br>Height 200 mm | 600 | CKUB6020 | 2CPX078312R9999 | | 1 |
| | 800 | CKUB8020 | 2CPX078313R9999 | | 1 |
| For 4 universal measuring instruments 72 x 72 mm<br>Cover fixed with one 1/4 turn screws on every side<br>Material sheet steel<br>Height 200 mm | 600 | CKUC6020 | 2CPX078314R9999 | | 1 |
| | 800 | CKUC8020 | 2CPX078315R9999 | | 1 |
| For 4 universal measuring instruments 96 x 96 mm<br>Cover fixed with one 1/4 turn screws on every side<br>Material sheet steel<br>Height 200 mm | 600 | CKUD6020 | 2CPX078316R9999 | | 1 |
| | 800 | CKUD8020 | 2CPX078317R9999 | | 1 |
| Cover earthing set<br>Connection between cover and structure, when using devices in the cover<br>Cable diameter 6 mm² | | CAEC6 | 2CPX078462R9999 | | 1 |
| Hinge set for covers<br>Opening angle 90°<br>Per cover are 2 pcs. required | | CAHCP10 | 2CPX078485R9999 | | 1 |

# Enclosures
## CombiLine S mounting plates



CAMF3030



CAMF6030



CAMF8030

- Mounting plate is for fixed mounted on profile
- Distance between mounting plate and cover is 110 mm
- Material sheet steel

| Width mm | Height mm | Usable space Height mm | Usable space Width mm | Minimum cabinet depth | Order details Type | Order details Order code | Price | Pcs. |
|---|---|---|---|---|---|---|---|---|
| 300 | 300 | 295 | 216 | 225 | CAMF3030 | 2CPX078323R9999 | | 1 |
| 600 | 150 | 145 | 432 | 225 | CAMF6015 | 2CPX078324R9999 | | 1 |
| | 200 | 195 | 432 | 225 | CAMF6020 | 2CPX078325R9999 | | 1 |
| | 250 | 245 | 432 | 225 | CAMF6025 | 2CPX078326R9999 | | 1 |
| | 300 | 295 | 432 | 225 | CAMF6030 | 2CPX078327R9999 | | 1 |
| | 400 | 395 | 432 | 225 | CAMF6040 | 2CPX078328R9999 | | 1 |
| | 500 | 495 | 432 | 225 | CAMF6050 | 2CPX078329R9999 | | 1 |
| | 600 | 595 | 432 | 225 | CAMF6060 | 2CPX078330R9999 | | 1 |
| | 800 | 795 | 432 | 225 | CAMF6080 | 2CPX078331R9999 | | 1 |
| 800 | 150 | 145 | 648 | 225 | CAMF8015 | 2CPX078332R9999 | | 1 |
| | 200 | 195 | 648 | 225 | CAMF8020 | 2CPX078333R9999 | | 1 |
| | 250 | 245 | 648 | 225 | CAMF8025 | 2CPX078334R9999 | | 1 |
| | 300 | 295 | 648 | 225 | CAMF8030 | 2CPX078335R9999 | | 1 |
| | 400 | 395 | 648 | 225 | CAMF8040 | 2CPX078336R9999 | | 1 |
| | 500 | 495 | 648 | 225 | CAMF8050 | 2CPX078337R9999 | | 1 |
| | 600 | 595 | 648 | 225 | CAMF8060 | 2CPX078338R9999 | | 1 |
| | 800 | 795 | 648 | 225 | CAMF8080 | 2CPX078339R9999 | | 1 |

# Enclosures
## CombiLine S internal form of separation Form 2b



CKFH1620

– Set to separate the busbar behind device area
– Touch protection in front of the busbar system
– Mounting position horizontal
– Material is transparent plastic

| Width mm | Height mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| 600 | 200 | CKFH1620 | 2CPX078463R9999 | | 1 |
| 800 | 200 | CKFH1820 | 2CPX078464R9999 | | 1 |



CKFH2620

– Set to separate the busbar behind device area
– Touch protection in front of the busbar system and in addition top or bottom
– Mounting position horizontal
– Material is transparent plastic

| Width mm | Height mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| 600 | 200 | CKFH2620 | 2CPX078465R9999 | | 1 |
| 800 | 200 | CKFH2820 | 2CPX078466R9999 | | 1 |



CKFH3620

– Set to separate the busbar behind device area
– Touch protection behind the busbar system
– Mounting position horizontal
– Material is transparent plastic

| Width mm | Height mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| 600 | 200 | CKFH3620 | 2CPX078467R9999 | | 1 |
| 800 | 200 | CKFH3820 | 2CPX078468R9999 | | 1 |



CKFV8060

| Article | Height in mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| Set to separate the busbars in external cable container to the device area<br>Mounting position vertical<br>Material transparent plastic<br>Depth 225 mm | 600 | CKFV8060 | 2CPX078469R9999 | | 1 |
| | 800 | CKFV8080 | 2CPX078470R9999 | | 1 |
| | 1000 | CKFV8100 | 2CPX078471R9999 | | 1 |
| | 1200 | CKFV8120 | 2CPX078472R9999 | | 1 |
| | 1400 | CKFV8140 | 2CPX078473R9999 | | 1 |
| | 1600 | CKFV8160 | 2CPX078474R9999 | | 1 |
| | 1800 | CKFV8180 | 2CPX078475R9999 | | 1 |
| | 2000 | CKFV8200 | 2CPX078476R9999 | | 1 |
| Depth 275 mm | 600 | CKFV9060 | 2CPX078477R9999 | | 1 |
| | 800 | CKFV9080 | 2CPX078478R9999 | | 1 |
| | 1000 | CKFV9100 | 2CPX078479R9999 | | 1 |
| | 1200 | CKFV9120 | 2CPX078480R9999 | | 1 |
| | 1400 | CKFV9140 | 2CPX078481R9999 | | 1 |
| | 1600 | CKFV9160 | 2CPX078482R9999 | | 1 |
| | 1800 | CKFV9180 | 2CPX078483R9999 | | 1 |
| | 2000 | CKFV9200 | 2CPX078484R9999 | | 1 |

# Enclosures
## CombiLine S busbar system



CKBS1161



CKBS1231

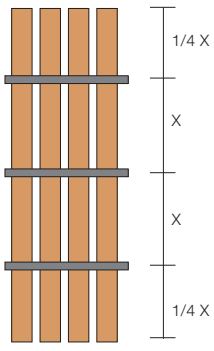


CKBS2161



CKBS2231

| Article | Width in mm | Min. cabinet depth mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|---|
| Busbar support linear for flat busbars<br>Behind the device area<br>Rated ($I_n$) max. 630 A<br>Rated peak withstand current ($I_{pk}$) up to 68 kA<br>Rated short-time withstand current ($I_{cw}$) 1.0 sec. up to 32 kA<br>To find the right numbers of supports to achive the short-circuit<br>see the table below, numbers of support 1 | 600<br>800 | 275<br>275 | CKBS1161<br>CKBS1181 | 2CPX078447R9999<br>2CPX078448R9999 | | 1<br>1 |
| Busbar support scaled for flat busbars<br>For external cable container<br>Rated current ($I_n$) max. 630 A<br>Rated peak withstand current ($I_{pk}$) up to 48 kA<br>Rated short-time withstand current ($I_{cw}$) 1.0 sec. up to 23 kA To find the right numbers of supports to achive the short-circuit<br>see the table below, numbers of support 1 | 300 | 225 | CKBS1231 | 2CPX078449R9999 | | 1 |
| Busbar support linear for shaped busbars<br>Behind theh device area<br>Rated current ($I_n$) max. 800 A<br>Rated peak withstand current ($I_{pk}$) up to 74 kA<br>Rated short-time withstand current ($I_{cw}$) 1.0 sec. up to 35 kA<br>To find the right numbers of supports to achive the short-circuit<br>see the table below , numbers of support 1 | 600<br>800 | 275<br>275 | CKBS2161<br>CKBS2181 | 2CPX078370R9999<br>2CPX078371R9999 | | 1<br>1 |
| Busbar support scaled for shaped busbars<br>For internal or external cable container<br>Rated current ($I_n$) max. 800 A<br>Rated peak withstand current ($I_{pk}$) up to 74 kA<br>Rated short-time withstand current ($I_{cw}$) 1.0 sec. up to 35 kA<br>To find the right numbers of supports to achive the short-circuit<br>see the table below, numbers of support 1 | 200/300 | 225 | CKBS2231 | 2CPX078372R9999 | | 1 |

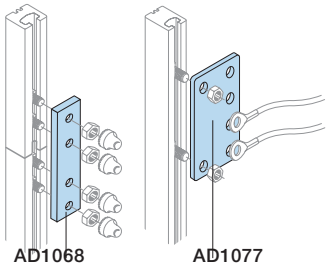



The distance between the first busbar holder and the end of the busbar must not exceed 1/4 of "X".

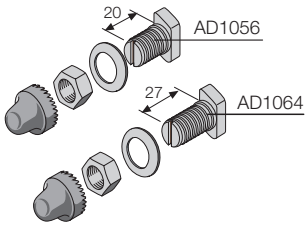
**Table for rated short-time withstand current ($I_{cw}$) 1.0 sec.**

| Busbar Type | $I_n$ in A | Busbar support | No. of busbars per phase | No support H = 1750 mm | max. X in mm | No support H = 1750 mm | max. X in mm | No support H = 1750 mm | max. X in mm | No support H = 1750 mm | max. X in mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Busbar support linear for flat busbars** | | | | 16kA | | 20 kA | | 23kA | | 32kA | |
| BR0250 | 250 | CKBS1161 | 1 | 4 | 500 | 6 | 350 | 10 | 200 | - | - |
| BR0400 | 400 | CKBS1161 | 1 | 4 | 500 | 6 | 350 | 10 | 200 | - | - |
| BR0630 | 630 | CKBS1181 | 1 | - | - | 4 | 600 | 4 | 600 | 9 | 210 |
| **Busbar support scaled for flat busbars** | | | | | | | | | | | |
| BR0250 | 250 | CKBS1231 | 1 | 11 | 175 | 15 | 125 | 18 | 100 | - | - |
| BR0400 | 400 | CKBS1231 | 1 | 9 | 225 | 15 | 125 | 18 | 100 | - | - |
| BR0630 | 630 | CKBS1231 | 1 | 9 | 225 | 15 | 125 | 18 | 100 | - | - |
| **Busbar Type** | **$I_n$ in A** | **Busbar support** | **No. of busbars per phase** | | | | | **No support H = 1730 mm** | **max. X in mm** | **No support H = 1730 mm** | **max. X in mm** |
| **Busbar support linear for shaped busbars** | | | | | | | | 25kA | | 35kA | |
| BA0400 | 400 | CKBS2161 | 1 | - | - | - | - | 4 | 550 | 5 | 425 |
| BA0800 | 800 | CKBS2181 | 1 | - | - | - | - | 4 | 550 | 4 | 550 |
| **Busbar support scaled for shaped busbars** | | | | | | | | | | | |
| BA0400 | 400 | CKBS2231 | 1 | - | - | - | - | 4 | 550 | 4 | 550 |
| BA0800 | 800 | CKBS2231 | 1 | - | - | - | - | 4 | 550 | 4 | 550 |

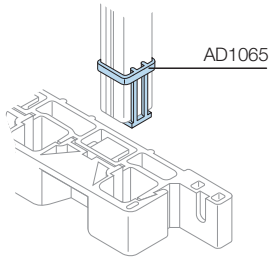
max X = maximum distance not to be exceeded between two consecutive busbar holders



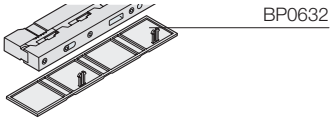

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **Joints for busbars with shaped section** | | | | |
| No. 4 copper 400 A branch joints | AD1077 | | | 4 |
| No. 4 joints for joining busbars with shaped section 400 / 800 A | AD1068 | | | 4 |




| | | | | |
|---|---|---|---|---|
| **Hammer seal screws for busbars with shaped section** | | | | |
| No. 12 M8 screws L = 20 mm for flexible busbars and cable shoes complete with screw-covering cap | AD1056 | | | 12 |
| No. 12 M8 screws L = 27 mm for flat busbars 10 mm complete with screw-covering cap | AD1064 | | | 12 |

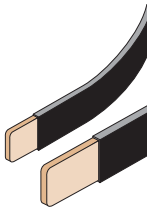



| | | | | |
|---|---|---|---|---|
| **Resting bases for busbars with shaped section** | | | | |
| No. 4 resting bases for 400 / 800 A busbars | AD1065 | | | 4 |



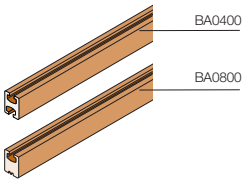

| | | | | |
|---|---|---|---|---|
| **Busbars holders end cover** | | | | |
| No. 2 terminal covers for linear busbar holders CKBS1161, CKBS1181 | BP0632 | | | 1 |

# Enclosures
## CombiLine S busbar system

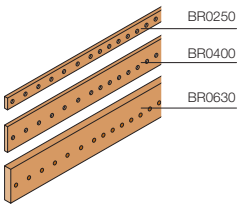


BF1602

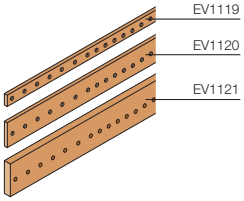
| Article | Dimensions Length mm | $I_n$ A | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|---|
| **Flexible Busbars** | | | | | | |
| Flexible busbars insulated with self-extinguishing material | | | | | | |
| No. 2 flexible busbars, section 20 x 3 | 2000 | 250 | BF1602 | | | 2 |
| No. 2 flexible busbars, section 20 x 5 | 2000 | 400 | BF2502 | | | 2 |
| No. 2 flexible busbars, section 24 x 6 | 2000 | 500 | BF4002 | | | 2 |
| No. 2 flexible busbars, section 32 x 5 | 2000 | 630 | BF4012 | | | 2 |




| | | | | | | |
|---|---|---|---|---|---|---|
| **Distribution busbars with shaped section** | | | | | | |
| Busbar $I_n$ = 400 A | 1730 | 400 | BA0400 | | | 1 |
| Busbar $I_n$ = 800 A | 1730 | 800 | BA0800 | | | 1 |




| | | | | | | |
|---|---|---|---|---|---|---|
| **Flat busbar** | | | | | | |
| Copper busbars drilled and threaded for rapid connection of the conductors | | | | | | |
| Can be used with both linear CKBS1161, CKBS1181 and scaled CKBS1231 busbar holder | | | | | | |
| No. 2 copper busbar 15 x 5 | 1750 | 250 | BR0250 | | | 2 |
| No. 2 copper busbar 25 x 5 | 1750 | 400 | BR0400 | | | 2 |
| No. 2 copper busbar 30 x 10 | 1750 | 630 | BR0630 | | | 2 |

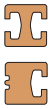
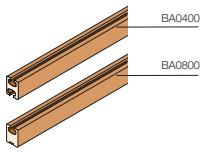


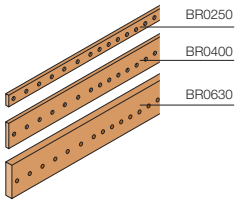

| | | | | | | |
|---|---|---|---|---|---|---|
| **Earthing busbars*** | | | | | | |
| Busbar can be mounted directly on the mounting profile or busbar 20 x 5 mm on the support for horizontal installation; | | | | | | |
| Copper busbars drilled and threaded for rapid connection of the conductors | | | | | | |
| No. 2 earthing busbars 20 x 5 threaded M6 | 2000 | | EV1119 | | | 2 |
| No. 2 earthing busbars 25 x 5 threaded M6 | 2000 | | EV1120 | | | 2 |
| No. 2 earthing busbars 50 x 5 threaded M6 | 2000 | | EV1121 | | | 2 |

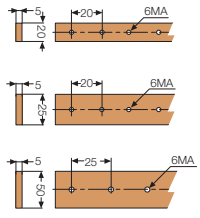
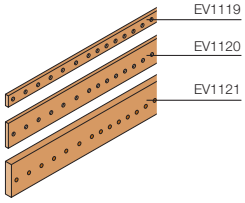


| | | | | | |
|---|---|---|---|---|---|
| Support universal, for horizontal installation | CASHP2 | 2CPX078450R9999 | | | 2 |
| For a Din rail or cable fastening rail or earth busbar max. 20 x 5 mm | CASHP50 | 2CPX078451R9999 | | | 50 |
| For fix mounting | | | | | |
| Material is metal | | | | | |

* Busbar dimensions can be selected according to IEC 61439-1 table 5

| Cross section | Code | $I_n$ in A | No. busbar/ phase | Dimensions | | | |
|---|---|---|---|---|---|---|---|
| | | | | Cu busbar im mm | Section dimensions mm² | Length mm | Weight kg |
| **Flexible busbars up to 630 A** | | | | | | | |
|   | BF1602 | 250 | 1 | 20 x 3 | 60 | 2000 | 1.42 |
| | BF2502 | 400 | 1 | 20 x 5 | 100 | 2000 | 2.15 |
| | BF4002 | 500 | 1 | 24 x 6 | 144 | 2000 | 3 |
| | BF4012 | 630 | 1 | 32 x 5 | 160 | 2000 | 3.36 |
| **Busbars with shaped section for applications up to 800 A** | | | | | | | |
|    | BA0400 | 400 | 1 | 20 x 20 | 200 | 1730 | 4 |
| | BA0800 | 800 | 1 | 20 x 20 | 280 | 1730 | 4,4 |

| Cross section | Code | $I_n$ in A | No. busbar/ phase | Dimensions | | | |
|---|---|---|---|---|---|---|---|
| | | | | Cu busbar im mm | Section dimensions mm² | Length mm | Weight kg |
| **Flat busbars for distribution up to 630 A** | | | | | | | |
|    | BR0250 | 250 | 1 | 15 x 5 | 75 | 1750 | 1.35 |
| | BR0400 | 400 | 1 | 25 x 5 | 125 | 1750 | 1.8 |
| | BR0630 | 630 | 1 | 30 x 10 | 300 | 1750 | 4.4 |

| Flat drilled and threaded busbars for earthing connections* | Code | Threading | pitch | Dimensions | | |
|---|---|---|---|---|---|---|
| | | | | Cu busbar im mm | Section dimensions mm² | Length mm |
|     | EV1119 | 6 MA | 20 | 20 x 5 | 100 | 2000 |
| | EV1120 | 6 MA | 20 | 25 x 5 | 125 | 2000 |
| | EV1121 | 6 MA | 25 | 50 x 5 | 250 | 2000 |

* Busbar dimensions can be selected according to IEC 61439-1 table 5

# Enclosures
## CombiLine S accessories, mounting support



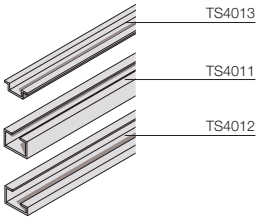
CASHP2

| Article | Width mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| Support universal, for horizontal installation | | CASHP2 | 2CPX078450R9999 | | 2 |
| For a Din rail or cable fastening rail or earth busbar max. 20 x 5 mm | | CASHP50 | 2CPX078451R9999 | | 50 |
| Material is metal | | | | | |



CASVP2

| | | | | | |
|---|---|---|---|---|---|
| Support universal, for vertical installation | | CASVP2 | 2CPX078452R9999 | | 2 |
| For a Din rail or cable fastening | | CASVP50 | 2CPX078453R9999 | | 50 |
| Material is metal | | | | | |




| Section for accessories | | | | | |
|---|---|---|---|---|---|
| Length 2000 mm | | | | | |
| No. 2 sections EN50024 C30 | | TS4011 | | | 2 |
| No. 2 sections EN50035 G32 | | TS4012 | | | 2 |
| No. 2 DIN sections EN50022 | | TS4013 | | | 2 |



CAHB16

| | | | | | |
|---|---|---|---|---|---|
| Horizontal mounting profile for busbar | 300 | CAHB3 | 2CPX078456R9999 | | 1 |
| support and cable fixing | 600 | CAHB6 | 2CPX078457R9999 | | 1 |
| Mounted on the back level of the vertical mounting profile | 800 | CAHB8 | 2CPX078458R9999 | | 1 |
| Material metal | | | | | |

# Enclosures
## CombiLine S accessories, wiring system



CASWP2



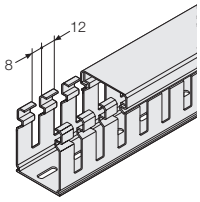
CAHW6

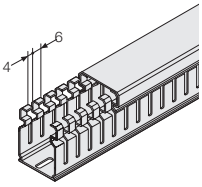


ED44P10



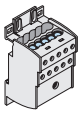
ED45P10



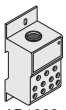



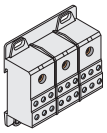

| Article | Width mm | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| Support for wiring duct | | CASWP2 | 2CPX078454R9999 | | 2 |
| For wiring ducts with 60 mm and 80 mm height | | CASWP50 | 2CPX078455R9999 | | 50 |
| Material is Polyamid (PA) | | | | | |
| Horizontal mounting profile for | 600 | CAHW6 | 2CPX078459R9999 | | 1 |
| Wiring system | 800 | CAHW8 | 2CPX078461R9999 | | 1 |
| Mounted on support for wiring duct | | | | | |
| Material metal | | | | | |
| **Wire holder** | | | | | |
| For horizontal mounting profile | | | | | |
| Depth 28.5 mm | | ED44P10 | 2CPX062335R9999 | | 10 |
| | | ED44P50 | 2CPX062308R9999 | | 50 |
| | | ED44P1000 | 2CPX062703R9999 | | 1000 |
| Depth 55 mm | | ED45P10 | 2CPX062336R9999 | | 10 |
| | | ED45P50 | 2CPX062310R9999 | | 50 |
| | | ED45P1000 | 2CPX062704R9999 | | 1000 |
| **Wiring ducts** | | | | | |
| For horizontal and vertical installation RAL 7035, lenght 2000 mm | | | | | |
| Slot 8 - 12 mm | | | | | |
| Base x Height in mm | | | | | |
| 60 x 60 | | 05 067 | | | 1 |
| 60 x 80 | | 05 087 | | | 1 |
| 80 x 60 | | 05 069 | | | 1 |
| 80 x 80 | | 05 089 | | | 1 |
| Slot 4 - 6 mm | | | | | |
| Base x Height in mm | | | | | |
| 60 x 60 | | 05 167 | | | 1 |
| 60 x 80 | | 05 187 | | | 1 |
| 80 x 60 | | 05 169 | | | 1 |
| 80 x 80 | | 05 189 | | | |

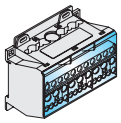
# Enclosures
## CombiLine S distribution system, modular dividers

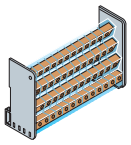

AD1080

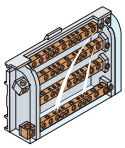

AD1081


AD1030
AD1031

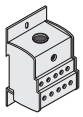
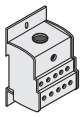
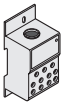
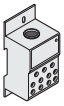
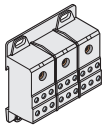
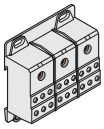

AD1075
AD1006

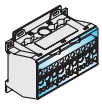
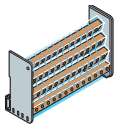
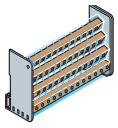
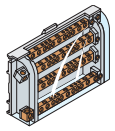

AD1004


AD1028
AD1029


AD1027

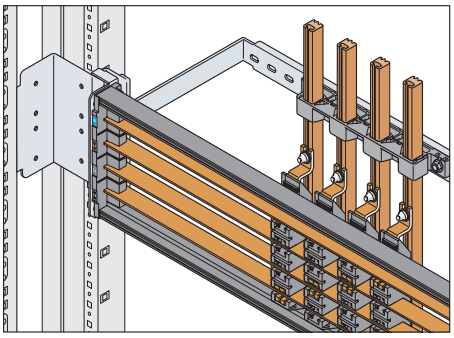
| Article | | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|---|
| **Single-pole** | | | | | |
| Modular 125 A | | AD1076 | | | 1 |
| Modular 125 A | | AD1080 | | | 1 |
| Modular 175 A | | AD1007 | | | 1 |
| Modular 175 A | | AD1081 | | | 1 |
| Modular 250 A | | AD1030 | | | 1 |
| Modular 400 A | | AD1031 | | | 1 |
| **Three-pole** | | | | | |
| Modular 125 A | | AD1075 | | | 1 |
| Modular 175 A | | AD1006 | | | 1 |
| **Four-pole** | | | | | |
| Modular 125 A | | AD1004 | | | 1 |
| Modular 125 A - medium - 93 x 89 x 48 (H x L x P) | | AD1028 | | | 1 |
| Modular 125 A - large - 96 x 126 x 48 (H x L x P) | | AD1029 | | | 1 |
| Modular 160 A | | AD1027 | | | 1 |
| **Amounting accessories** | | | | | |
| Connection accessory between two AD 1080 | | AD1083 | | | 1 |

| | | Single-pole | | | | | | Three-poles | |
|---|---|---|---|---|---|---|---|---|---|
| | |  |  |  |  |  |  |  |  |
| **Code** | | **AD1076** | **AD1080(1)** | **AD1007** | **D1081(2)** | **AD1030** | **AD1031** | **AD1075** | **AD1006** |
| $I_n$ | (A) | 125 | 125 | 175 | 175 | 250 | 400 | 125 | 175 |
| $I_{cw}$ | (kA) | 4.4 | 4.2 | 11 | 1.1 | 21 | 21 | 4.4 | 11 |
| Version | pole | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 |
| Installation | | DIN35/plate | DIN35/plate | DIN35/plate | DIN35/plate | DIN35/plate | DIN35/plate | DIN35/plate | DIN35/plate |
| Power supply Ø cable ($mm^2$) | min. | 10 | 6 | 16 | 10 | 35 | 95 | 10 | 16 |
| | max | 35 | 35 | 70 | 70 | 120 | 185 | 35 | 70 |
| No. outgoing feeder Ø cable | 1,5÷10 | | | | | 4 | 4 | | |
| ($mm^2$) | 2,5÷16 | 10 | 6 | 10 | 6 | 5 | 5 | 6 | 6 |
| | 2,5÷25 | | | | | 2 | 2 | | |
| Dimensions H x W x D | (mm) | 71 x 45 x 42,5 | 74 x 27 x 47 | 71 x 45 x 42,5 | 92 x 35 x 49 | 95.5 x 45 x 49 | 95.5 x 45 x 49 | 71.5 x 80 x 42,5 | 71.5 x 80 x 42,5 |
| No. DIN modules | | 2,5 | 1,5 | 2,5 | 2 | 3 | 3 | 4.5 | 4.5 |
| Rated service voltage $U_e$ | (V) | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ | 1000 $V_{ac}$<br>1500 $V_{dc}$ |
| Degree of protection | IP | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

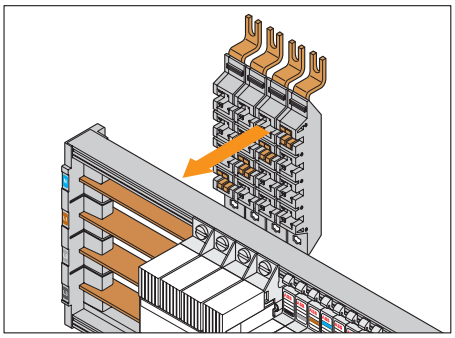
| | | Four poles | | | | |
|---|---|---|---|---|---|---|
| | |  | |  |  |  |
| **Code** | | **AD1004** | | **AD1028** | **AD1029** | **AD1027** |
| $I_n$ | (A) | 125 | | 125 | 125 | 160 |
| $I_{cw}$ | (kA) | 10 | | 4.2 | 4.2 | 6.2 |
| $I_{pk}$ | (kA) | 24 | | 25 | 25 | 20 |
| Version | poli | 4.2 | | 4 | 4 | 4 |
| Installation | | DIN35/plate | | DIN35/plate | DIN35/plate | DIN35 |
| Power supply Ø cable ($mm^2$) | min. | 6 | | 6 | 6 | 10 |
| | max | 35 | | 25 with cable terminal | 25 with cable terminal | 50 |
| No. outgoing feeder Ø cable | | 1/6 | 5/phase | | | |
| ($mm^2$) | | 1.5/6 | 4/neutral | | | |
| | | 1.5/10 | 2/phase | 7 | 9 | |
| | | | 6/neutral | | | |
| | | 1.5/16 | | | 2 | |
| | | 2.5/16 | | | | 8 |
| | | 6/25 | | 2 | 2 | 3 |
| Dimensions H x W x D | (mm) | 74.5 x 98 x 45 | | 93 x 89 x 48 | 96 x 126 x 48 | 90 x 160.5 x 50 |
| No. DIN modules | | 5,5 | | 5 | 7 | 9 |
| Rated service voltage $U_e$ | (V) | 1000 $V_{ac}$<br>1500 $V_{dc}$ | | 440 | 440 | 440 |
| Degree of protection | IP | 20 | | 20 | 20 | 20 |

(1) Possibility of putting in parallel with AD1083 connections
(2) Possibility of putting in parallel with comb type connection (not supplied)

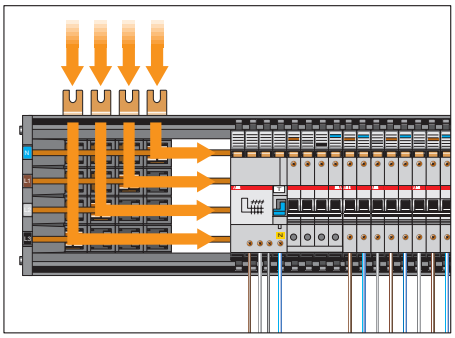
# Enclosures
## CombiLine S distribution system Unifix, overview



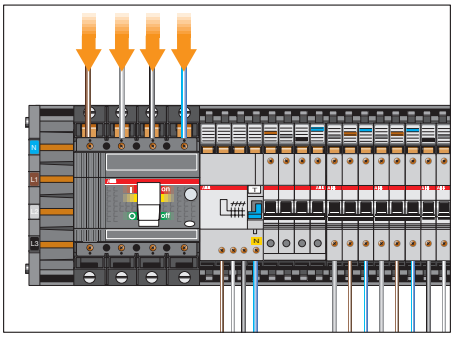
Direct connection with the 400/800 A system of busbars with shaped section.



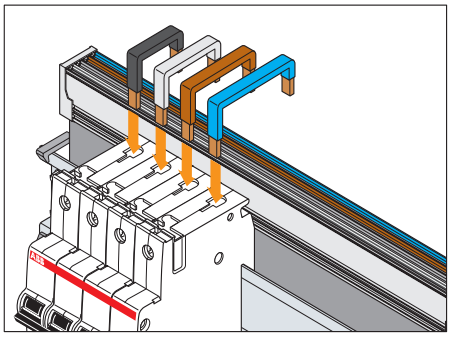
Feeder module for 400 A frame (L1-L2-L3-N).



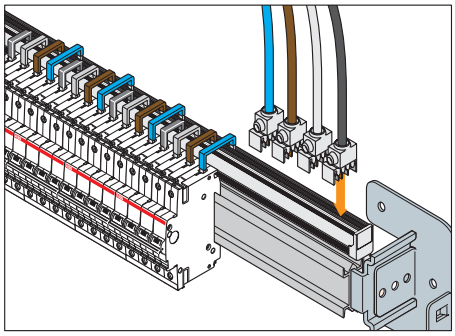
Direct power supply of the bases by means of feeder module ED2209.



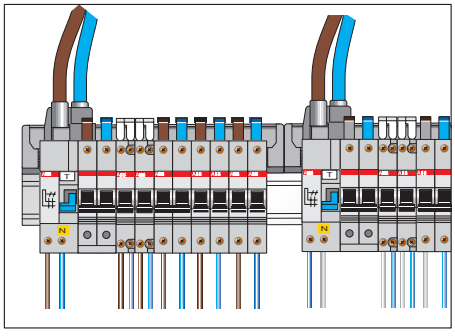
Power supply by means of general row circuit-breaker.



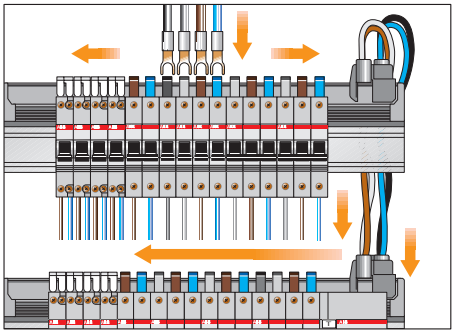
Connections (L1-L2-L3-N) for System pro *M* modular apparatus.



Power supply of the busbar with 100 A feeder module without cable. Terminal capacity 35mm$^2$.



Direct power supply of the busbars by means of feeder module.

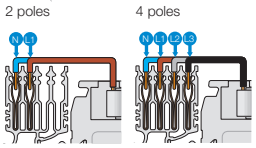


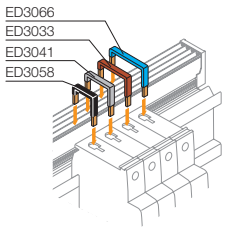
Power supply by means of modules and cables in parallel.

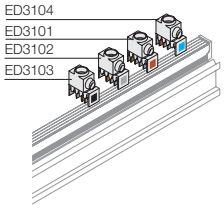


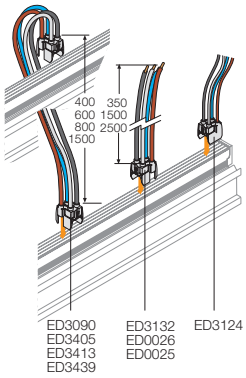
**Where to find more:**
Chapter 14 of
Solutions for electrical distribution in buildings - technical details

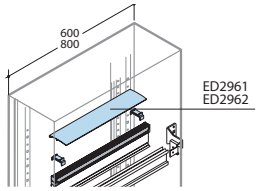
# Enclosures
## CombiLine S distribution system Unifix L



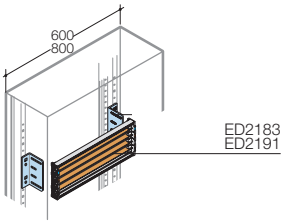



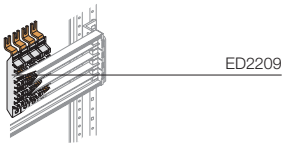



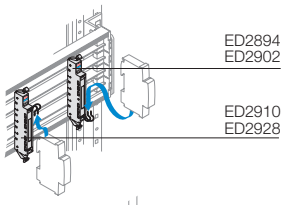



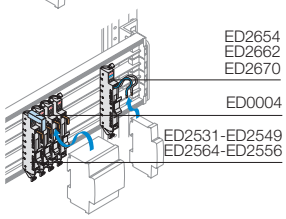

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **2-pole busbars** | | | | |
| 100 A 2P 8 module busbar, width 200 mm | ED2985 | | | 6 |
| 100 A 2P 12 module busbar, width 400 mm | ED2993 | | | 6 |
| 100 A 2P 18 module busbar, width 450 mm | ED3009 | | | 6 |
| 100 A 2P 24 module busbar, width 600 mm | ED3017 | | | 6 |
| 100 A 2P 36 module busbar, width 800 mm | ED3025 | | | 6 |
| **4-pole busbars** | | | | |
| 100 A 4P 12 module busbar, width 400 mm | ED2944 | | | 6 |
| 100 A 4P 18 module busbar, width 450 mm | ED2951 | | | 6 |
| 100 A 4P 24 module busbar, width 600 mm | ED2969 | | | 6 |
| 100 A 4P 36 module busbar, width 800 mm | ED2977 | | | 6 |
| **Connections for various apparatus** | | | | |
| Connection with 2 conductors L/N 16 A | ED3108 | | | 6 |
| Connection with 3 conductors L1/L2/L3 16 A | ED3116 | | | 6 |
| Connection with 4 conductors L1/L2/L3/N 16 A single phase | ED3124 | | | 6 |
| Connection with 2 conductors L1/N 40 A | ED3355 | | | 6 |
| Connection with 3 conductors L1/L2/L3 40 A | ED3363 | | | 6 |
| Connection with 4 conductors L1/L2/L3/N 40 A | ED3371 | | | 6 |
| **Connections for apparatus** | | | | |
| No. 10 connections L1-N 40 A | ED3272 | | | 10 |
| No. 10 connections L2-N 40 A | ED3280 | | | 10 |
| No. 10 connections L3-N 40 A | ED3298 | | | 10 |
| No. 10 connections L 1 100 A | ED3033 | | | 10 |
| No. 10 connections L 2 100 A | ED3041 | | | 10 |
| No. 10 connections L 3 100 A | ED3058 | | | 10 |
| No. 10 connections N 100 A | ED3066 | | | 10 |
| Feeder with 4P 100 A cable, width 350 mm | ED3132 | | | 10 |
| Feeder with 4P 100 A cable, width 1500 mm | ED0026 | | | 10 |
| Feeder with 4P 100 A cable, width 1500 mm | ED0025 | | | 10 |
| **Power supply modules with cable** | | | | |
| Parallel module 2P 100 A with cable, width 600 mm | ED3082 | | | 6 |
| Parallel module 4P 100 A with cable, width 400 mm | ED3405 | | | 6 |
| Parallel module 4P 100 A with cable, width 600 mm | ED3090 | | | 6 |
| Parallel module 4P 100 A with cable, width 800 mm | ED3413 | | | 6 |
| Parallel module 4P 100 A with cable, width 1500 mm | ED3439 | | | 6 |
| **Power supply modules without cable In 100 A** | | | | |
| No. 10 single-pole power supply terminals L1 | ED3101 | | | 10 |
| No. 10 single-pole power supply terminals L2 | ED3102 | | | 10 |
| No. 10 single-pole power supply terminals L3 | ED3103 | | | 10 |
| No. 10 single-pole power supply terminals N | ED3104 | | | 10 |
| **Accessories** | | | | |
| N°10 busbar covers, width 600 mm | ED2961 | | | 10 |
| N°2 busbar covers, width 800 mm | ED2962 | | | 2 |

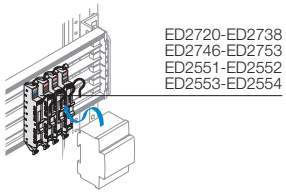
# Enclosures
## CombiLine S distribution system Unifix H

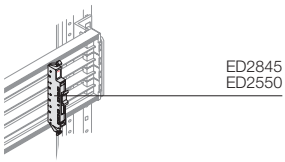


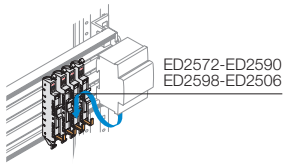



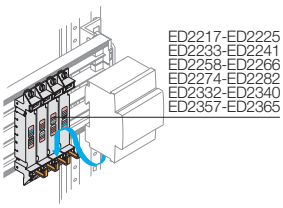



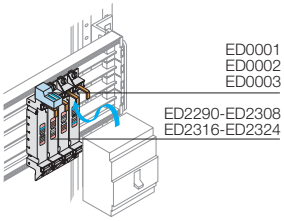



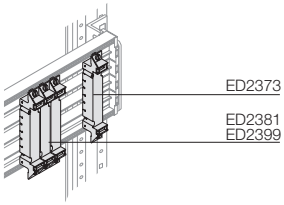



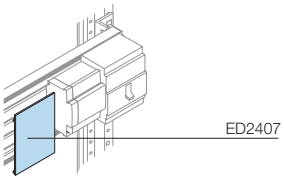



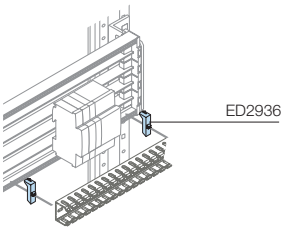

| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **Frames for Tmax** | | | | |
| Frame with 24 DIN module busbar | ED2183 | | | 1 |
| Frame with 36 DIN module busbar | ED2191 | | | 1 |
| **Feeder modules** | | | | |
| 4P 400 A feeder module (for ED2183-ED2191) | ED2209 | | | 1 |
| **Basic modules In 16 A** | | | | |
| Basic module for DIN L1-N top 16 A | ED2894 | | | 1 |
| Basic module for DIN L1-L2 top 16 A | ED2902 | | | 1 |
| Basic module for DIN L1-N bottom 16 A | ED2910 | | | 1 |
| Basic module for DIN L1-L2 bottom 16 A | ED2928 | | | 1 |
| **Basic modules In 40 A** | | | | |
| Basic module L1/Neutral top 40 A | ED2654 | | | 1 |
| Basic module L2/Neutral top 40 A | ED2662 | | | 1 |
| Basic module L3/Neutral top 40 A | ED2670 | | | 1 |
| **Basic modules In 63 A** | | | | |
| Basic module L1 top 63 A | ED2531 | | | 1 |
| Basic module L2 top 63 A | ED2549 | | | 1 |
| Basic module L3 top 63 A | ED2556 | | | 1 |
| Basic module Neutral top 63 A | ED2564 | | | 1 |
| Basic module L1 bottom 63 A | ED2572 | | | 1 |
| Basic module L2 bottom 63 A | ED2590 | | | 1 |
| Basic module L3 bottom 63 A | ED2598 | | | 1 |
| Basic module Neutral bottom 63 A | ED2606 | | | 1 |
| **Basic modules In 100 A** | | | | |
| Basic module with cable L1 top 100 A | ED2720 | | | 10 |
| Basic module with cable L2 top 100 A | ED2738 | | | 2 |
| Basic module with cable L3 top 100 A | ED2746 | | | 1 |
| Basic module with cable Neutral top 100 A | ED2753 | | | 1 |
| **Basic modules ≤ In 40 A S800** | | | | |
| Basic module L1 top ≤ 40 A | ED2557 | | | 1 |
| Basic module L2 top ≤ 40 A | ED2558 | | | 1 |
| Basic module L3 top ≤ 40 A | ED2559 | | | 1 |
| Basic module Neutral top ≤ 40 A | ED2560 | | | 1 |
| **Basic modules ≤ In 125 A S800** | | | | |
| Basic module L1 top 125 A | ED2551 | | | 1 |
| Basic module L2 top 125 A | ED2552 | | | 1 |
| Basic module L3 top 125 A | ED2553 | | | 1 |
| Basic module Neutral bottom 125 A | ED2554 | | | 1 |
| Basic module false pole, width 27 mm | ED2557 | | | 1 |




| Article | Order details Type | Order code | Price | Pcs. |
|---|---|---|---|---|
| **Basic modules ≤ In 160 A, Tmax XT1** | | | | |
| Basic module L1 top L2 bottom | ED2217 | | | 1 |
| Basic module L2 top L1 bottom | ED2225 | | | 1 |
| Basic module L3 top Neutral bottom | ED2233 | | | 1 |
| Basic module Neutral top L3 bottom | ED2241 | | | 1 |
| Basic module false pole for residual current release RC221 | ED2373 | | | 1 |
| Basic module false pole for solenoid operator | ED2381 | | | 1 |
| **Basic modules ≤ In 250 A, Tmax XT3** | | | | |
| Basic module L1 top | ED2290 | | | 1 |
| Basic module L2 top | ED2308 | | | 1 |
| Basic module L3 top | ED2316 | | | 1 |
| Basic module N top | ED2324 | | | 1 |
| Basic module L1 bottom | ED2332 | | | 1 |
| Basic module L2 bottom | ED2340 | | | 1 |
| Basic module L3 bottom | ED2357 | | | 1 |
| Basic module N bottom | ED2365 | | | 1 |
| Basic module false pole for residual current release RC221 | ED2373 | | | 1 |
| **Accessories** | | | | |
| Basic module false pole for DDA | ED2845 | | | 1 |
| Basic module false pole for modular MDRC | ED2852 | | | 1 |
| No. 2 IP20 covers (for ED2183-ED2191), width 173 mm (10 DIN modules) | ED2407 | | | 2 |
| No. 6 duct supports 40 x 60 mm (only for modular apparatus) | ED2936 | | | 6 |
| **Spare parts** | | | | |
| No. 10 terminal covers for Tmax XT1 | ED0001 | | | 10 |
| No. 10 terminal covers for Tmax XT3 | ED0003 | | | 10 |
| No. 10 terminal covers for S200/F200 | ED0004 | | | 10 |

# Enclosures
## CombiLine S distribution system Unifix, technical data

| Technical characteristics | Unifix H | Unifix L |
|---|---|---|
| **Unifix systems** | | |
| Rated service voltage ($U_e$) | 690 V AC | 400 V AC |
| Rated insulation voltage ($U_i$) | 1000 V AC | 500 V AC |
| Rated impulse withstand voltage ($U_{imp}$) | 8 kV | 6 kV |
| Rated frequency | 50/60 Hz | 50/60 Hz |
| Rated current ($I_n$) | | |
| central power supply | 400 A | 100 A |
| lateral power supply | 320 A | 80 A |
| Rated short-time withstand current ($I_{cw}$) | 25 kA | - |
| Maximum peak current ($I_{pk}$) | 52,5 kA - 400 V | - |
| Maximum installable circuit-breaker size | 250 A | 100 A |
| Conditioned short-circuit current ($I_{cc}$) | | |
| Tmax XT1 | 50 kA - 400 V | - |
| Tmax XT3 | 50 kA - 400 V | - |
| With circuit-breaker | | |
| S200 | - | 6 kA - 400 V |
| S200M | - | 10 kA - 400 V |
| S200P | - | 25 kA - 400 V |
| Degree of protection | IP20 with accessory | IP20 |
| Characteristics of the insulating material | Self-extinguishing thermoplastic V1 (UL94) | Self-extinguishing thermoplastic V1 (UL94) |
| Characteristics of the conductor material | Electrolytic copper | Electrolytic copper |
| Width | 24/600 | 12/400 |
| (No. modules/mm) | 36/800 | 24/600 |
| | | 36/800 |
| **Installation of Unifix system** | | |
| Frame for Tmax XT series | | |
| 300 x 600 mm (H x L) | ED2183 | - |
| 300 x 800 mm (H x L) | ED2191 | - |
| Fixing brackets Height 300 mm | AD1097 | - |
| Crosspiece for direct connection to the rear busbars with | | |
| shaped section with PB0803 | TL1000 | - |
| Width 600 mm | TL1100 | |
| Width 800 mm | | - |
| Busbar 4P | | |
| 12 mod. | - | ED2993 |
| 18 mod. | - | ED3009 |
| 24 mod. | - | ED3017 |
| 36 mod. | - | ED3025 |
| Busbar 4P | - | |
| 12 mod. | - | ED2944 |
| 18 mod. | - | ED2951 |
| 24 mod. | - | ED2969 |
| 36 mod. | - | ED2977 |
| Fixing support | - | |
| 24 mod. | - | GD1520 |
| 36 mod. | - | GD1530 |

(1) Select circuit-breakers in version with front terminals for copper cables.

# Enclosures
## CombiLine S distribution system Unifix, selecting table

| Series of circuit-breakers | Unifix H | | Unifix L |
|---|---|---|---|
| **Unifix systems** | | | |
| Table for selecting connections according to the circuit-breaker | | | |
| SN201 | (top power supply) | | |
| DS941 | ED2654 L1/N 40 A | - | ED3272 L1/N 40 A |
| | ED2662 L2/N 40 A | - | ED3280 L2/N 40 A |
| | ED2670 L3/N 40 A | - | ED3298 L3/N 40 A |
| S200 - DS200 | (top power supply) | (bottom power supply) | |
| F200 up to 63A (Unifix L) | ED2531 L1 63A | ED2572 L1 63A | ED3033 L1 100A |
| | ED2549 L2 63A | ED2590 L2 63A | ED3041 L2 100A |
| | ED2556 L3 63A | ED2598 L3 63A | ED3058 L3 100A |
| | ED2564 N 63A | ED2606 N 63A | ED3066 N 100A |
| | ED2845 False pole module | - | - |
| S800 | (top power supply) | | |
| | ED2557 L1 ≤32A | - | - |
| | ED2558 L2 ≤32A | - | - |
| | ED2559 L3 ≤32A | - | - |
| | ED2560 N ≤32A | - | - |
| | ED2551 L1 125A | - | - |
| | ED2552 L2 125A | - | - |
| | ED2553 L3 125A | - | - |
| | ED2554 N 125A | - | - |
| | ED2550 False pole module | - | - |
| S280 (80-100A) | (top power supply) | | |
| E200 up to 100A - RS370 - F200 80/100A (Unifix H) | ED2720 L1 100A | - | ED3132 pow. supply L1/L2/L3/N - 350mm |
| | ED2738 L2 100A | - | ED0026 pow. supply L1/L2/L3/N - 1500mm |
| | ED2746 L3 100A | - | ED0025 pow. supply L1/L2/L3/N - 2500mm |
| | ED2753 N 100A | - | - |
| MDRC - Various apparatus | (top power supply) | (bottom power supply) | |
| | ED2894 L1/N 16A | ED2910 L1/N 16A | ED3108 pow. supply 2 cables L1/N 16A |
| | ED2902 L1/L2 16A | ED2928 L1/L2 16A | ED3116 pow. supply 3 cables L1/L2/L3 16A |
| | - | - | ED3124 pow. supply 4 cables L1/L2/L3/N 16A |
| | - | - | ED3355 pow. supply 2 cables L1/N 40A |
| | - | - | ED3363 pow. supply 3 cables L1/L2/L3 40A |
| | - | - | ED3371 pow. supply 4 cables L1/L2/L3/N 71A |
| Circuit-breaker | (top/bottom power supply) | - | - |
| Tmax XT1 | ED2217 L1 Top/L2 Bottom | - | - |
| | ED2225 L2 Top/L1 Bottom | - | - |
| | ED2233 L3 Top/N Bottom | - | - |
| Residual current | ED2241 N Top/L3 Bottom | - | - |
| Selenoid operator | ED2373 False pole module | - | - |
| | ED2381 False pole module | - | - |
| Circuit-breaker | (top power supply) | (bottom power supply) | - |
| Tmax XT3 | ED2290 L1 | ED2332 L1 | - |
| | ED2308 L2 | ED2340 L2 | - |
| | ED2316 L3 | ED2357 L3 | - |
| Residual current | ED2324 N | ED2365 N | - |
| | ED2373 False pole module | - | - |

(1) Select circuit-breakers in version with front terminals for copper cables.

# Livorno Series emergency consumer units
## Technical details designed to facilitate installation

Tre gradi di protezione, IP40, IP55, IP65 ne consentono l'utilizzo in qualsiasi tipologia di ambiente sia interno che esterno

La struttura in materiale termoplastico autoestinguente garantisce resistenza al calore anormale e al fuoco




La porta frontale è equipaggiata con un vetro di protezione frangibile che in caso di necessità può essere rotto con l'apposito accessorio frangivetro

La versioni ad incasso, a parete oppure con guida DIN offrono ampie soluzioni installative




The Livorno Series is a range of emergency consumer units equipped with an emergency breakable glass to quickly and effectively stop systems or services in the case of malfunctions or dangers that may occur in residential, tertiary or industrial installations.

Made of self-extinguishing thermoplastic material, these devices are mainly installed in those environments that have greater risk of fire.
The flush- and wall-mounting versions can be equipped with a luminous button and glass-breaking hammer.

# Enclosures
## Livorno Series emergency consumer units



### Consumer units, technical specifications

| | |
|---|---|
| Protection class | IP40, IP55 or IP65, according to version. |
| Version | flush- and wall-mounting. |
| Colour | RAL 3000 red and RAL 7035 grey. |
| Installation temperature | -25°C ÷ +60°C. |
| Resistance to heat | ball thermopressure up to +85°C according to EN 60695-10-2 standard. |
| Front door | breakable glass 0.75 (IK05 degree). |
| Material | self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard. |
| Door lock | coded-type key |
| Included accessories | module covers (per DIN rail versions) |
| | 4 screw cover plugs |
| | certification plate |

### Consumer units with emergency button, technical specifications

| | |
|---|---|
| Protection degree | IP55. |
| Version | flush- and wall-mounting |
| Colour | RAL 3000 red. |
| Installation temperature | -25°C ÷ +60°C. |
| Rated operating voltage Ue | 250 V. |
| Utilisation category | AC 12. |
| Rated operating voltage Ie | 2 A. |
| Rated insulation voltage Ui | 250 V. |
| Pollution degree | 3. |
| Fuses | 10 A, gG type, 10.3x38 mm. |
| Front door | breakable glass 0.75 (IK05 degree). |
| Material | self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard. |
| Luminous button | with 1 NO contact + 1 NC contact (2 A, 250 V). |
| Included accessories | glass-breaking hammer. |
| Optional accessories | 12 or 24 V bulb lamp (incandescent), or 250 V (fluorescent). |
| Conformity | EN 60947-5-1 standard. |
| Mark of approval | IMQ according to EN 60947-5-1 |



13 183



13 144 - 13 154



13 143 - 13 153

| Description | IP rating | Dimensions WxHxD [mm] | Order details Type | Order code | Pack. pc. |
|---|---|---|---|---|---|
| **Flush-mounting version** | | | | | |
| RAL 3000 red colour. Possible installation on flush-mounting box with 83.5 mm centre distance. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer. | IP55 | 100x100x50 | - | 13 183 | 1/13 |
| RAL 3000 red colour. With DIN rail x 6 mod. | IP40 | 200x245x82 | - | 13 144 | 1/7 |
| RAL 3000 red colour. With panel. | IP40 | 200x245x82 | - | 13 154 | 1/7 |
| RAL 7035 grey colour. With DIN rail x 6 mod. | IP40 | 200x245x82 | - | 13 143 | 1/7 |
| RAL 7035 grey colour. With panel. | IP40 | 200x245x82 | - | 13 153 | 1/7 |

* lamp not included

# Enclosures
## Livorno Series emergency consumer units



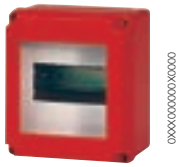
13 180



13 171 - 13 175



13 170 - 13 174



13 161 - 13 165



13 160 - 13 164



13 141 - 13 151



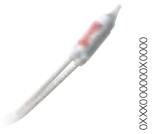
13 140 - 13 150

| Description | IP rating | Dimensions WxHxD [mm] | Order details Type | Order code | Pack. pc. |
|---|---|---|---|---|---|
| **Wall-mounting version** | | | | | |
| RAL 3000 red colour. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer. | IP55 | 100x100x50 | - | 13 180 | 1/14 |
| RAL 3000 red colour. Equipped with flanges for easy branch connections. With DIN rail x 8 mod. | IP65 | 205x220x140 | - | 13 171 | 1/6 |
| RAL 3000 red colour. Equipped with flanges for easy branch connections. With panel. | IP65 | 205x220x140 | - | 13 175 | 1/6 |
| RAL 7035 grey colour. Equipped with flanges for easy branch connections. With DIN rail x 8 mod. | IP65 | 205x220x140 | - | 13 170 | 1/6 |
| RAL 7035 grey colour. Equipped with flanges for easy branch connections. With panel. | IP65 | 205x220x140 | - | 13 174 | 1/6 |
| RAL 3000 red colour. With DIN rail x 8 mod. | IP55 | 165x180x110 | - | 13 161 | 1/12 |
| RAL 3000 red colour. With panel. | IP55 | 165x180x110 | - | 13 165 | 1/12 |
| RAL 7035 grey colour. With DIN rail x 8 mod. | IP55 | 165x180x110 | - | 13 160 | 1/12 |
| RAL 7035 grey colour. With panel. | IP55 | 165x180x110 | - | 13 164 | 1/12 |
| RAL 3000 red colour. With DIN rail x 6 mod. | IP40 | 170x210x110 | - | 13 141 | 1/6 |
| RAL 3000 red colour. With panel. | IP40 | 170x210x110 | - | 13 151 | 1/6 |
| RAL 7035 grey colour. With DIN rail x 6 mod. | IP40 | 170x210x110 | - | 13 140 | 1/6 |
| RAL 7035 grey colour. With panel. * lamp not included | IP40 | 170x210x110 | - | 13 150 | 1/6 |

* lampada non fornita



13 190



13 187 - 13 188 - 13 189



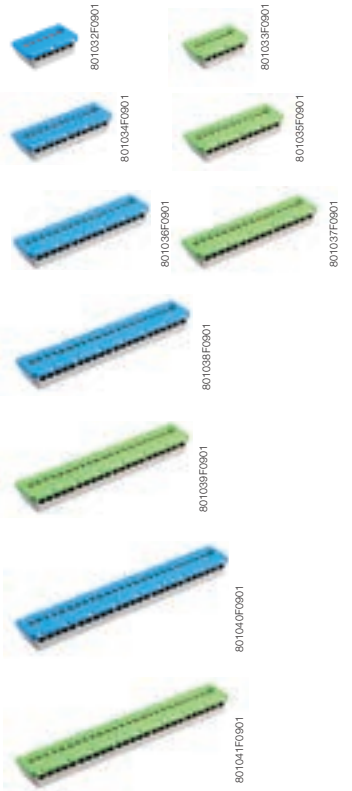
13 186



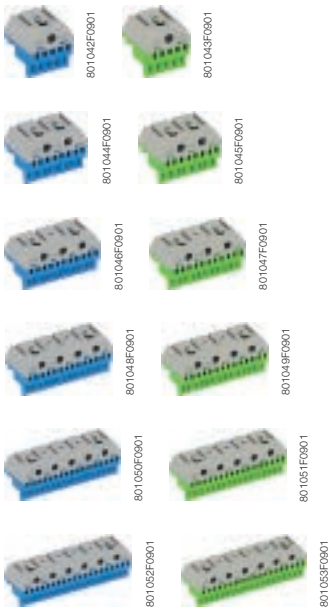
12 858

| Description | Order details | | Pack. |
|---|---|---|---|
| | Type | Order code | pc. |
| **Accessories** | | | |
| Spare lid for consumer units with emergency button | - | 13 190 | 10/40 |
| Bulb lamp for 12 V luminous button - incandescent | - | 13 187 | 10/120 |
| Bulb lamp for 24 V luminous button - incandescent | - | 13 188 | 10/120 |
| Bulb lamp for 250 V luminous button - fluorescent | - | 13 189 | 10/120 |
| Glass-breaking hammer | - | 13 186 | 10/300 |
| Fixing brackets for IP65 insulated consumer units only | - | 12 858 | 20/240 |

# Enclosures
## Terminal blocks




Terminal block




Terminal block screwless

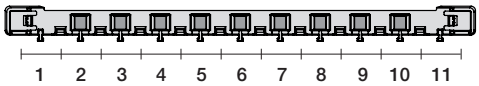



Terminal carrier

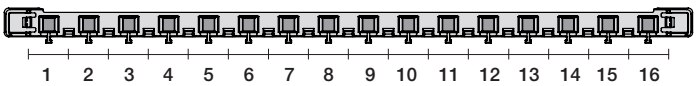
| Description | Maximum current | ABB code | Article number | Packaging |
|---|---|---|---|---|
| **Terminal block** | | | | |
| Terminal block N 3x16mm²+3x6mm² | 100 A | 1SPE007715F0731 | | 5/270 |
| Terminal block N 5x16mm²+6x6mm² | 100 A | 1SPE007715F0732 | | 5/150 |
| Terminal block N 7x16mm²+9x6mm² | 100 A | 1SPE007715F0733 | | 5/120 |
| Terminal block N 9x16mm²+12x6mm² | 100 A | 1SPE007715F0734 | | 5/90 |
| Terminal block N 11x16mm²+15x6mm² | 100 A | 1SPE007715F0735 | | 5/90 |
| Terminal block PE 3x16mm²+3x6mm² | 100 A | 1SPE007715F0741 | | 5/270 |
| Terminal block PE 5x16mm²+6x6mm² | 100 A | 1SPE007715F0742 | | 5/150 |
| Terminal block PE 7x16mm²+9x6mm² | 100 A | 1SPE007715F0743 | | 5/120 |
| Terminal block PE 9x16mm²+12x6mm² | 100 A | 1SPE007715F0744 | | 5/90 |
| Terminal block PE 11x16mm²+15x6mm² | 100 A | 1SPE007715F0745 | | 5/90 |
| **Terminal block screwless** | | | | |
| Terminal block screwless N 5x1,5-4mm² | 63 A | 1SPE007715F9701 | | 5/280 |
| Terminal block screwless N 5x1,5-4mm²+1x25mm² | 63 A | 1SPE007715F9702 | | 5/180 |
| Terminal block screwless N 8x1,5-4mm²+2x25mm² | 63 A | 1SPE007715F9703 | | 5/150 |
| Terminal block screwless N 11x1,5-4mm²+3x25mm² | 63 A | 1SPE007715F9704 | | 5/100 |
| Terminal block screwless N 14x1,5-4mm²+4x25mm² | 63 A | 1SPE007715F9705 | | 5/90 |
| Terminal block screwless N 17x1,5-4mm²+5x25mm² | 63 A | 1SPE007715F9706 | | 5/70 |
| Terminal block screwless N 20x1,5-4mm²+6x25mm² | 63 A | 1SPE007715F9707 | | 5/60 |
| Terminal block screwless PE 5x1,5-4mm²+1x25mm² | 63 A | 1SPE007715F9712 | | 5/180 |
| Terminal block screwless PE 8x1,5-4mm²+2x25mm² | 63 A | 1SPE007715F9713 | | 5/150 |
| Terminal block screwless PE 11x1,5-4mm²+3x25mm² | 63 A | 1SPE007715F9714 | | 5/100 |
| Terminal block screwless PE 14x1,5-4mm²+4x25mm² | 63 A | 1SPE007715F9715 | | 5/90 |
| Terminal block screwless PE 17x1,5-4mm²+5x25mm² | 63 A | 1SPE007715F9716 | | 5/70 |
| Terminal block screwless PE 20x1,5-4mm²+6x25mm² | 63 A | 1SPE007715F9717 | | 5/60 |
| **Terminal carriers** | | | | |
| Terminal carrier 8M | | 1SPE007715F0751 | | 5/280 |
| Terminal carrier 12M | | 1SPE007715F0752 | | 5/225 |
| Terminal carrier 18M | | 1SPE007715F0753 | | 5/150 |

## Terminal carrier

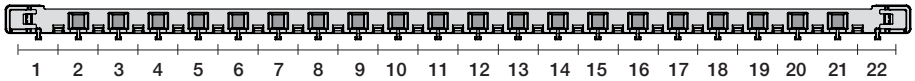
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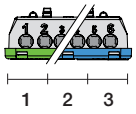



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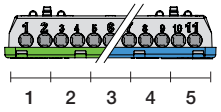



## Terminal block

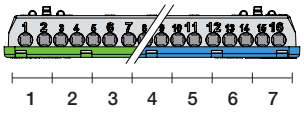
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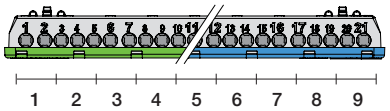

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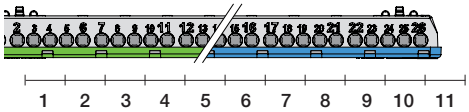

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1SPE007715F0734




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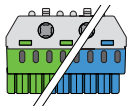



## Terminal block screwless

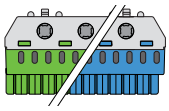
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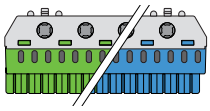

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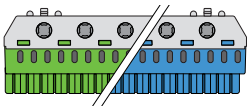

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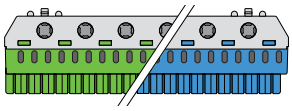

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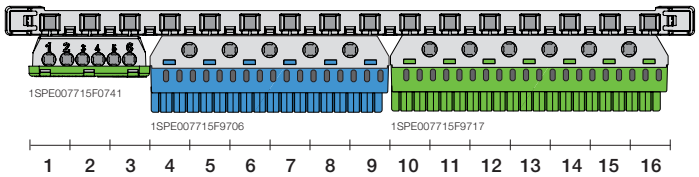



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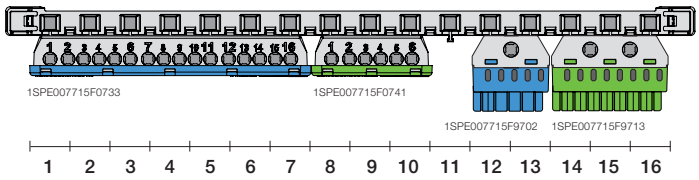



## Assembly examples

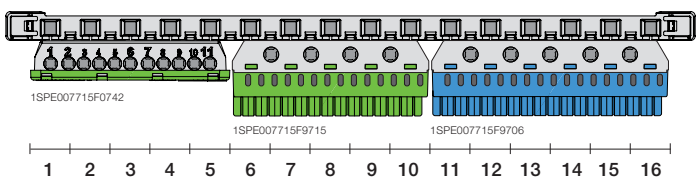
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1SPE007715F0752




1SPE007715F0752



# IP44, IP55 and IP65 Junction boxes
## The details make the difference

High resistance to heat and chemical and atmospheric agents

Installation temperature from -25°C to +60°C



Three lid types available: press-on, with steel screws and with plastic screws with a ¼ turn closing

Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal



A wide range for all needs.
There are IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands and IP65 for screw-on lid box with smooth sides.



Some versions of the IP44 and IP55 junction boxes are already equipped with cable glands.



Boxes with protection degree IP55 and IP65 are composed
of a patented lid produced in a single pressing phase together
with its seal.



Now new: All IP65 junction boxes (with smooth sides) are manufactured in halogen free thermoplastic material.



Wall-mounting is also possible. All junction boxes measuring 160x135, 220x170 and 310x240 mm can be mounted on the wall with brackets (accessory; code 12858).



All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C GWT.

# Enclosures
## IP44, IP55 and IP65 Junction boxes


2CSC001064F0014

IP44 boxes


2CSC001065F0014

IP44 boxes


2CSC001066F0014

IP55

- IP44, IP55 and IP65 Junction boxes for swimming pool control equipment, washing car centers, garages, building services, automatic garden lighting and watering, traffic signs, photovoltaic installations.
- Protection degree: IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands, IP65 for screw-on lid box with smooth sides
- Shock resistant: IK07 for IP44 boxes, IK08 for IP55 and IP65 boxes
- IP44 and IP55 boxes with press-on lids in thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard
- IP65 boxes with screw-on lids in halogen free thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695- 2-11 Standard
- Installation temperature from -25°C to +60°C; Resistant to heat: ball thermopressure up to +85°C for IP44, IP55 and IP65 junction boxes
- Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal
- All junction boxes made in compliance with IEC 60670-1 and IEC 60670-22 Standards
- IP44 and IP55 junction boxes in thermoplastic material obtained the IMQ mark of approval
- All the boxes are RoHS compliance

All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard.

| Description | Dimensions HxWxD [mm] | Order code | Price | Box/Pack No items |
|---|---|---|---|---|
| **IP44 boxes - GWT 650°C** | | | | |
| With cable glands and press-on lid | | | | |
| IP44-Snap-on cover - GWT 650°C | Ø 60 - H 35 | 00800 | | 240/240 |
| IP44-Snap-on cover - GWT 650°C | Ø 80 - H 40 | 00802 | | 144/144 |
| IP44-Snap-on cover - GWT 650°C | 65x65x32 | 00808 | | 168/168 |
| IP44-Snap-on cover - GWT 650°C | 80x80x40 | 00810 | | 100/100 |
| **IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C** | | | | |
| With cable glands and low screw-on lid RAL 7035 | | | | |
| IP55-Cable glands-low lid-1/4TS GWT 650°C | 100x100x50 | 1SL0816A00 | | 1/54 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C | 105x70x50 | 1SL0820A00 | | 1/70 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C | 100x100x80 | 1SL0821A00 | | 1/40 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C | 153x110x66 | 1SL0822A00 | | 1/32 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C* | 160x135x77 | 1SL0824A00 | | 1/18 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C* | 220x170x80 | 1SL0826A00 | | 1/12 |
| IP55-Cable glands-low lid-1/4TS GWT 650°C* | 310x240x110 | 1SL0828A00 | | 1/6 |

* Can be wall-mounted using wall brackets code 12858.




IP65




IP65




IP55




IP65




IP65

| Description | Dimensions HxWxD [mm] | Order code | Price | Box/Pack No items |
|---|---|---|---|---|
| **IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free** | | | | |
| With smooth sides and low screw-on lid RAL 7035 | | | | |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free | 100x100x50 | 1SL0846A00 | | 1/60 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free | 105x70x50 | 1SL0850A00 | | 1/100 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free | 100x100x80 | 1SL0851A00 | | 1/40 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free | 153x110x66 | 1SL0852A00 | | 1/32 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free* | 160x137x77 | 1SL0854A00 | | 1/24 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free* | 220x170x80 | 1SL0856A00 | | 1/12 |
| IP65-Smooth-low lid-1/4TS GWT 650°C halogen free* | 310x240x110 | 1SL0858A00 | | 1/6 |
| **With smooth sides and transparent low screw-on lid** | | | | |
| IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free | 153x110x66 | 1SL0872A00 | | 1/34 |
| IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free* | 160x135x77 | 1SL0874A00 | | 1/24 |
| IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free* | 220x170x80 | 1SL0876A00 | | 1/12 |
| IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free* | 310x240x110 | 1SL0878A00 | | 1/6 |
| **IP55 waterproof boxes with steel screws - GWT 650°C** | | | | |
| With cable glands and high screw-on lid RAL 7035 | | | | |
| IP55- Cable glands-low lid - GWT 650°C | 100x100x50 | 00816 | | 1/54 |
| IP55- Cable glands-low lid - GWT 650°C | 105x70x50 | 00820 | | 1/70 |
| IP55- Cable glands-low lid - GWT 650°C | 100x100x80 | 00821 | | 1/40 |
| IP55- Cable glands-low lid - GWT 650°C | 153x110x66 | 00822 | | 1/32 |
| **IP65 waterproof boxes with steel screws - GWT 650°C halogen free** | | | | |
| With smooth sides and high screw-on lid RAL 7035 | | | | |
| IP65- Smooth W.-low lid - GWT 650°C halogen free | 100x100x50 | 00846 | | 1/60 |
| IP65- Smooth W.-low lid - GWT 650°C halogen free | 105x70x50 | 00850 | | 1/100 |
| IP65- Smooth W.-low lid - GWT 650°C halogen free | 100x100x80 | 00851 | | 1/40 |
| IP65- Smooth W.-low lid - GWT 650°C halogen free | 153x110x66 | 00852 | | 1/34 |
| With Smooth sides and transparent high screw-on lid | | | | |
| IP65- Smooth W.-transparent. low lid-153X110X66 GWT 650°C halogen free | 151x110x66 | 00872 | | 1/34 |

# Enclosures
## IP44, IP55 and IP65 Junction boxes




IP55




IP65




IP65

| Description | Dimensions HxWxD [mm] | Order code | Price | Box/Pack No items |
|---|---|---|---|---|
| **IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C** | | | | |
| With Cable glands and high screw-on lid RAL 7035 | | | | |
| IP55-Cable glands-high lid -1/4TS GWT 650°C | 160x135x150 | 1SL0830A00 | | 1/16 |
| IP55-Cable glands-high lid -1/4TS GWT 650°C | 220x170x150 | 1SL0832A00 | | 1/8 |
| IP55-Cable glands-high lid -1/4TS GWT 650°C | 310x240x160 | 1SL0834A00 | | 1/4 |
| **IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free** | | | | |
| With Smooth sides and high screw-on lid RAL 7035 | | | | |
| IP65-Smooth-high lid -1/4TS GWT 650°C halogen free | 160x135x150 | 1SL0860A00 | | 1/16 |
| IP65-Smooth-high lid -1/4TS GWT 650°C halogen free | 220x170x150 | 1SL0862A00 | | 1/8 |
| IP65-Smooth-high lid -1/4 TS GWT 650°C halogen free | 310x240x160 | 1SL0864A00 | | 1/4 |
| With Smooth sides and transparent high screw-on lid | | | | |
| IP65-Smooth-high transparent lid -1/4TS GWT 650°C halogen free* | 160x135x150 | 1SL0880A00 | | 1/16 |
| IP65-Smooth-high transparent lid -1/4TS GWT 650°C halogen free* | 220x170x150 | 1SL0882A00 | | 1/8 |
| IP65-Smooth-high transparent lid -1/4TS GWT 650°C halogen free* | 310x240x160 | 1SL0884A00 | | 1/4 |

* Can be wall-mounted using wall brackets code 12858.

# Enclosures
## IP 44, IP 55 and IP 65 junction boxes in thermoplastic material




IP44




IP44




IP55




IP65




IP65

| Description | Dimensions HxWxD [mm] | Order code | Price | Box/Pack No items |
|---|---|---|---|---|
| **IP 44 boxes - GWT 960 °C** | | | | |
| With cable glands and press-on lid | Ø 60 - H 35 | 1SL0900A00 | | 240/240 |
| | Ø 80 - H 40 | 1SL0901A00 | | 144/144 |
| | 65x65x32 | 1SL0902A00 | | 168/168 |
| | 80x80x40 | 1SL0903A00 | | 100/100 |
| **IP 55 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C** | | | | |
| With cable glands and low screw-on lid RAL 7035 | 100x100x50 | 1SL0916A00 | | 1/54 |
| | 105x70x50 | 1SL0920A00 | | 1/70 |
| | 100x100x80 | 1SL0921A00 | | 1/40 |
| | 153x110x66 | 1SL0922A00 | | 1/32 |
| | 160x135x77 | 1SL0924A00(*) | | 1/18 |
| | 220x170x80 | 1SL0926A00(*) | | 1/12 |
| | 310x240x110 | 1SL0928A00(*) | | 1/6 |
| **IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C** | | | | |
| With smooth sides and low screw-on lid RAL 7035 | 100x100x50 | 1SL0946A00 | | 1/60 |
| | 105x70x50 | 1SL0950A00 | | 1/100 |
| | 100x100x80 | 1SL0951A00 | | 1/40 |
| | 153x110x66 | 1SL0952A00 | | 1/32 |
| | 160x137x77 | 1SL0954A00(*) | | 1/24 |
| | 220x170x80 | 1SL0956A00(*) | | 1/12 |
| | 310x240x110 | 1SL0958A00(*) | | 1/6 |
| With smooth sides and transparent low screw-on lid | 153x110x66 | 1SL0972A00 | | 1/34 |
| | 160x135x77 | 1SL0974A00(*) | | 1/24 |
| | 220x170x80 | 1SL0976A00(*) | | 1/12 |
| | 310x240x110 | 1SL0978A00(*) | | 1/6 |

(*) Can be wall-mounted using wall brackets code 12 858.

# Enclosures
## IP 44, IP 55 and IP 65 junction boxes in thermoplastic material




IP55




IP65




IP65




IP55




IP65




IP65

| Description | Dimensions HxWxD [mm] | Order code | Price | Box/Pack No items |
|---|---|---|---|---|
| **IP 55 waterproof boxes with steel screws - GWT 960 °C** | | | | |
| With cable glands and high screw-on lid RAL 7035 | 100x100x50 | 1SL0904A00 | | 1/54 |
| | 105x70x50 | 1SL0905A00 | | 1/70 |
| | 100x100x80 | 1SL0906A00 | | 1/40 |
| | 153x110x66 | 1SL0907A00 | | 1/32 |
| **IP 65 waterproof boxes with steel screws - GWT 960 °C** | | | | |
| With smooth sides and high screw-on lid RAL 7035 | 100x100x50 | 1SL0908A00 | | 1/60 |
| | 105x70x50 | 1SL0909A00 | | 1/100 |
| | 100x100x80 | 1SL0910A00 | | 1/40 |
| | 153x110x66 | 1SL0911A00 | | 1/34 |
| With smooth sides and transparent high screw-on lid | 151x110x66 | 1SL0912A00 | | 1/34 |
| **IP 55 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C** | | | | |
| With cable glands and high screw-on lid RAL 7035 | 160x135x150 | 1SL0930A00 | | 1/16 |
| | 220x170x150 | 1SL0932A00 | | 1/8 |
| | 310x240x160 | 1SL0934A00 | | 1/4 |
| **IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C** | | | | |
| With smooth sides and high screw-on lid RAL 7035 | 160x135x150 | 1SL0960A00 | | 1/16 |
| | 220x170x150 | 1SL0962A00 | | 1/8 |
| | 310x240x160 | 1SL0964A00 | | 1/4 |
| With smooth sides and transparent high screw-on lid | 160x135x150 | 1SL0980A00(*) | | 1/16 |
| | 220x170x150 | 1SL0982A00(*) | | 1/8 |
| | 310x240x160 | 1SL0984A00(*) | | 1/4 |

(*) Can be wall-mounted using wall brackets code 12 858.

# Enclosures
## Accessories for IP44, IP55 and IP65 Junction boxes

| Technical characteristics of metric cable clamps: |
|---|
| Protection degree IP68 |
| Material: polyamide 6.6, self-extinguishing material according to UL94V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard |
| Operational temperature: from -20°C up to +120°C (short period of time) |
| Colour: RAL 7035 grey; |
| Neoprene seal; |
| Thread pitch: 1.5 mm; Thread angle: 60° |
| Tightening with a plate crown on the whole diameter of cable (excluded the possibility to damage the cable itself) |
| Possibility to recover the cable clamp without compromising its efficiency. |

| Technical characteristics nuts of with metric pitch collar |
|---|
| Material: polyamide 6.6, self-extinguishing material according to UL94 V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard |
| Operational temperature: from -20°C up to +120°C (continuous) from -20°C up to +120°C (short period of time) |
| Colour: RAL 7035 grey |
| Thread pitch: 1.5 mm; Thread angle: 60°. |


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PG pitch


2CSC001087F0014

PG pitch


2CSC001088F0014

metric pitch


2CSC001089F0014

metric pitch

### Cable glands and nuts - PG pitch

| Pitch | Torque values | For cables diameter | | Cable gland | | Nut x cable gland | | Cable clamp Box/pack | Nuts x cable Box/pack |
|---|---|---|---|---|---|---|---|---|---|
| Pg | N x m | Min (mm) | Max (mm) | Order code | Price | Order code | Price | No Items | No Items |
| 9 | 3.75 | 6.5 | 8.5 | 00931 | | 00941 | | 100/500 | 100/3000 |
| 11 | 3.75 | 8 | 10 | 00932 | | 00942 | | 100/500 | 100/3000 |
| 13.5 | 3.75 | 8 | 11 | 00933 | | 00943 | | 50/500 | 50/1500 |
| 16 | 5 | 11 | 14 | 00934 | | 00944 | | 50/300 | 50/1500 |
| 21 | 7.5 | 14.5 | 18 | 00935 | | 00945 | | 50/300 | 50/1500 |
| 29 | 7.5 | 19 | 26 | 00936 | | 00946 | | 25/150 | 50/600 |
| 36 | 7.5 | 30 | 34 | 00937 | | 00947 | | 25/75 | 25/300 |
| 42 | 7.5 | 30 | 38 | 00938 | | 00948 | | 15/60 | 25/300 |

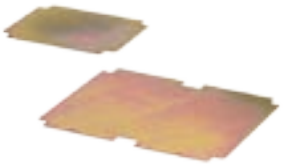
In compliance with CEI EN 50262 Standard.

### Cable glands and nuts - metric pitch

| Pitch | Torque values | Cables diameter | | Cable gland | | Nut | | Box/pack | Cable clamp Box/pack |
|---|---|---|---|---|---|---|---|---|---|
| Pg | N x m | Min (mm) | Max (mm) | Order code | Price | Order code | Price | No Items | No Items |
| 12 x 1.5 | 2.7 | 3.5 | 7 | 00951 | | 00961 | | 100/1200 | 100/3000 |
| 16 x 1.5 | 5 | 5.5 | 10 | 00952 | | 00962 | | 100/500 | 100/3000 |
| 20 x 1.5 | 7 | 7 | 13 | 00953 | | 00963 | | 100/500 | 50/1500 |
| 25 x 1.5 | 7.5 | 10 | 17 | 00954 | | 00964 | | 50/250 | 50/1500 |
| 32 x 1.5 | 8 | 12 | 21 | 00955 | | 00965 | | 25/150 | 50/500 |
| 40 x 1.5 | 8 | 19 | 28 | 00956 * | | 00966 | | 25/75 | 25/300 |
| 50 x 1.5 | 10 | 27 | 35 | 00957 * | | 00967 | | 15/60 | 25/300 |
| 63 x 1.5 | 10 | 34 | 45 | 00958 * | | 00968 | | 10/40 | 20/100 |

In compliance with CEI EN 50262 Standard.
* Cable clamps and M40, M50 and M63 nuts are available on request.

# Enclosures
## Accessories for IP44, IP55 and IP65 Junction boxes


2CSC001090F0014

Metal base plates


2CSC001091F0014

Cable Clamps


2CSC001092F0014

Conduit clamps


2CSC001093F0014

Unions

| Description | Order code | Price | Box/Pack No items |
|---|---|---|---|
| **Metal base plates** | | | |
| Metal base plate for boxes with dimensions 160x135x77 | 1/10 | | 00900 |
| Metal base plate for boxes with dimensions 220x170x80 | 1/5 | | 00902 |
| Metal base plate for boxes with dimensions 310x240x110 | 1/5 | | 00904 |
| All metal base plates listed above are equipped with fixing screws type 3.5x9.5. | | | |
| **Cable Clamps - Protection Degree: IP55** | | | |
| Cable clamp for conduit Ø 20 mm | 100/1500 | | 00908 |
| Cable clamp for conduit Ø 25 mm | 100/1000 | | 00910 |
| Cable clamp for conduit Ø 32 mm | 50/400 | | 00912 |
| **Conduit clamps - Box Connector - Protection Degree: IP67** | | | |
| Conduit clamp Ø 16 mm | 00430 | | 500/500 |
| Conduit clamp Ø 20 mm | 00431 | | 300/300 |
| Conduit clamp Ø 25 mm | 00432 | | 150/150 |
| Conduit clamp Ø 32 mm | 00433 | | 100/100 |
| Conduit clamp Ø 40 mm | 00434 | | 50/50 |
| Conduit clamp Ø 50 mm | 00435 | | 50/50 |
| **Unions - Protection Degree: IP55** | | | |
| Union connector PG 16 IP55 Ø 23 mm | 13874 | | 10/500 |
| Union connector PG 21 IP55 Ø 28,5 mm | 13875 | | 100/400 |
| Union connector PG 29 IP55 Ø 37 mm | 13876 | | 100/200 |

# e-Design. Everyone has a project. We have the solution to make it happen.

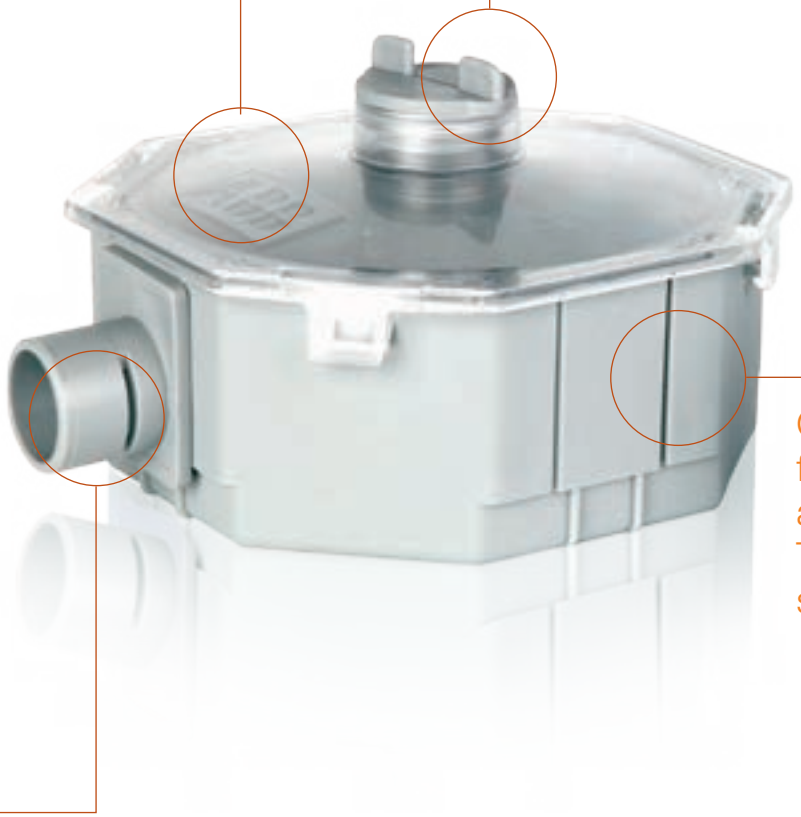
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# CJ8/16 Cable joint
## The details make the difference

Transparent lid allows visual inspection

After closing the screw-type cap on top, the cable joint can be put into the ground immediately, it no longer needs to be kept level until the resin has hardened



Cut-outs on all four sides to use a feedthrough, T- or X-branched sleeve

Suitable for cable thicknesses from 8 mm up to 14.5 mm



Cable with a diameter of 8 to 14.5 mm can be cut and prepared for use in the cable joint.The inserts can easily slide over the cable.



The electrical connections can be made outside the box.



The required number of entries can be made by removing the cutouts with a set of pliers.



The assembly can slide into the box and the inserts will assure that the resin will not leak out during the hardening process.



There is more than enough space inside the box for all the connections.



The clear lid allows for visual inspection.



The resin is supplied as 2 split component s resin and activator. The resin and activator need to be mixed until a homogenous colour is reached. (without need to touch material).



The resin can be poured into the box (funnel included).



After closing of the screw type lid the box needs no longer to be level and there is no need to wait until the resin has completely hardened before putting the joint back into the ground. (saves time).

# Enclosures
## CJ8/16 Cable joint



2CSC001105F0014

Cable Joint Kit

Unique design, eliminates the need for foam seals. Cables can be connected outside the casing. Ample space for both joining and derivation. Transparent lid allows for visual inspection.
Comes complete with resin, gloves, sand-linen, three inserts and instruction manual.
The universal underground jointing solution for professionals and do-it-yourself alike.

| Description | Order code | Price |
|---|---|---|
| Cable Joint Kit: universal connection; universal T- or X- split; for cables 8-14,5 mm | 1SPA007189F0101 | |

# Solutions for electrical distribution in buildings
## Quick product references


**Wiring diagrams**

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**Worldwide marks and approvals**

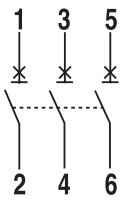
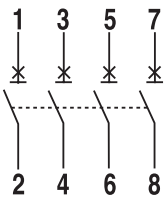
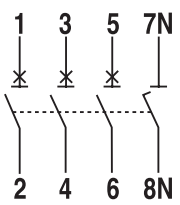
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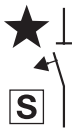
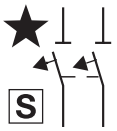
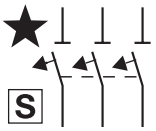
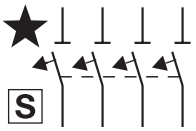
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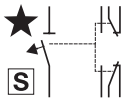
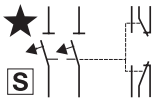
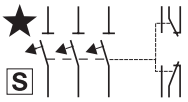
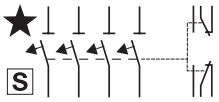
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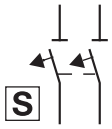
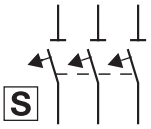
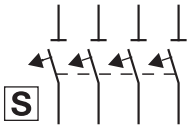
# Quick product references
# MCBs wiring diagrams

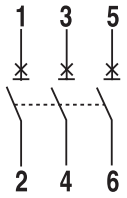
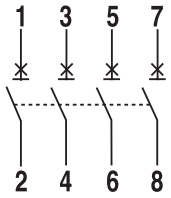
## MCBs

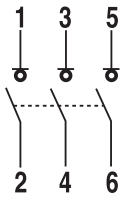
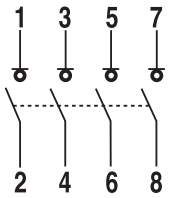
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|  |  |  |  |  |  |

| S 701 | S 702 | S 703 | S 704 |
|---|---|---|---|
|  |  |  |  |

| S 701+H2WR | S 702+H2WR | S 703+H2WR | S 704+H2WR |
|---|---|---|---|
|  |  |  |  |

| S 751 DR | S 752 DR | S 753 DR | S 754 DR |
|---|---|---|---|
|  |  |  |  |

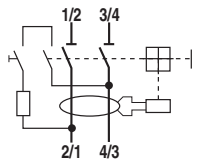
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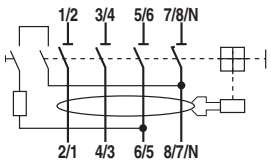
# Quick product references
# RCDs wiring diagrams

## RCDs

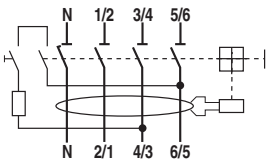
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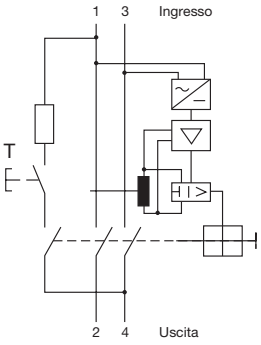

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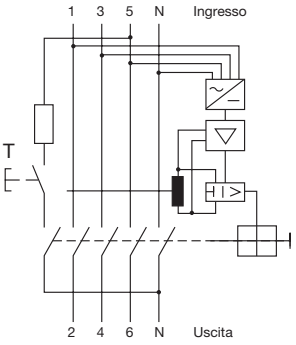

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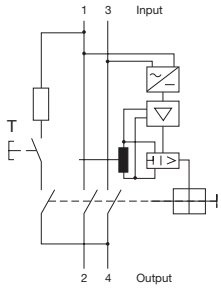

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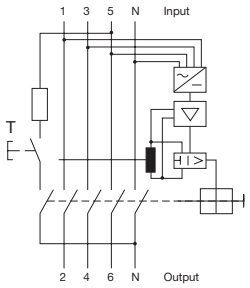

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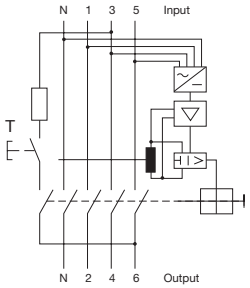

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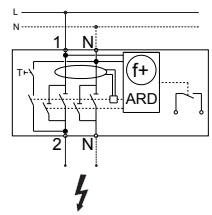

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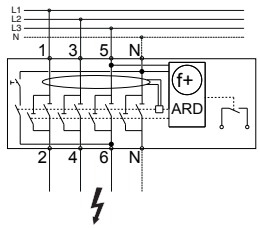

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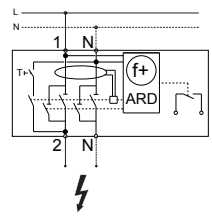

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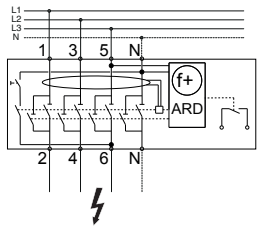

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### F-ATI 2 Test

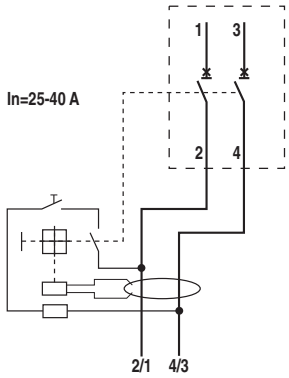



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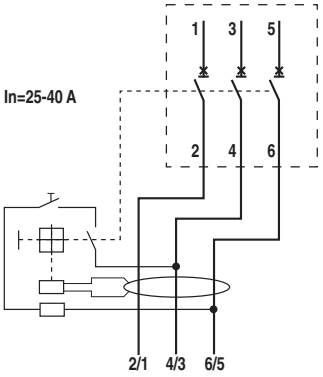


# RCD-blocks

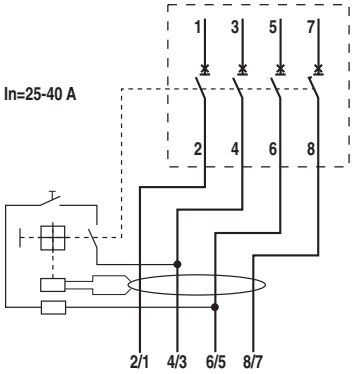
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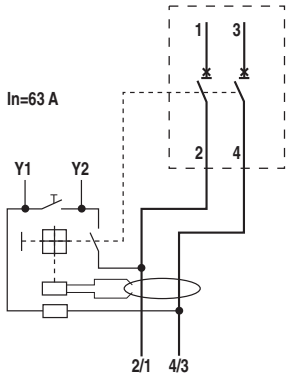

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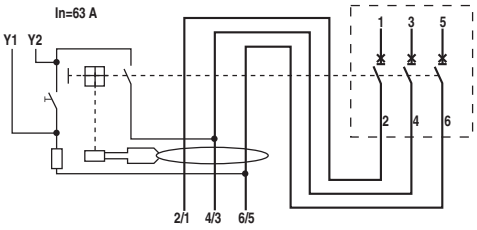

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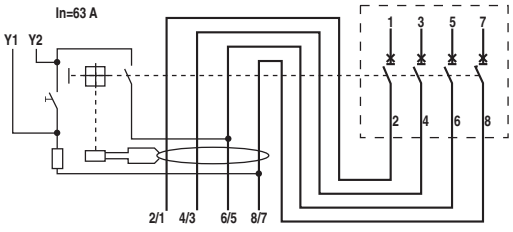

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## DDA 203



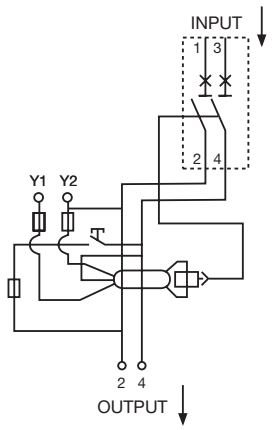

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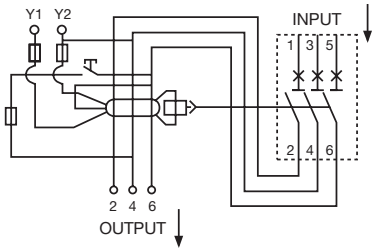
# Quick product references
## RCDs wiring diagrams

### RCD-blocks

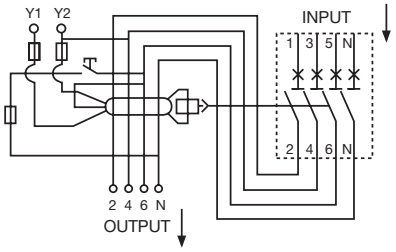
**DDA 202 AE**




**DDA 203 AE**

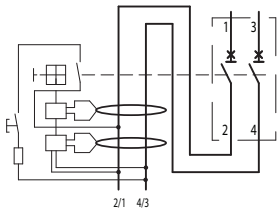



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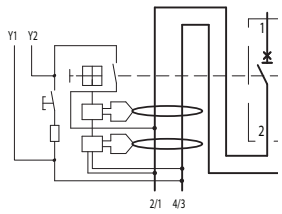



**DDA 202 B type**

In=25 A

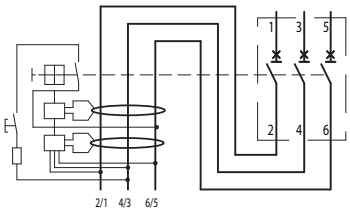



In=40-63 A

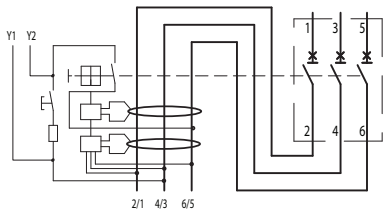



**DDA 203 B type**

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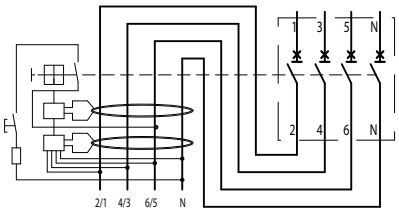



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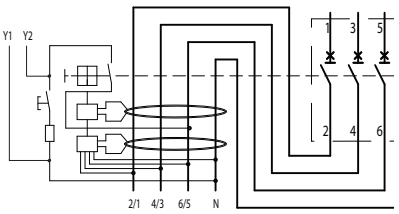



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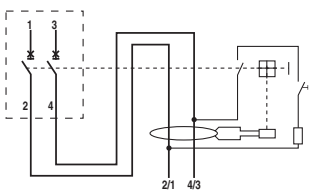
In=25 A



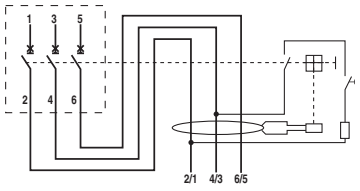

In=40-63 A



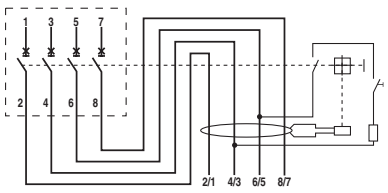

**DDA 802**




**DDA 803**

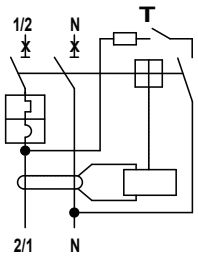



**DDA 804**

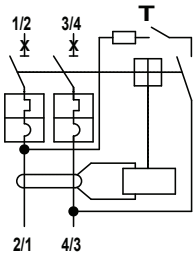


# RCBOs

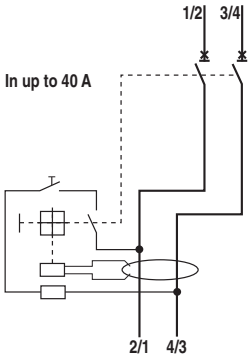
## DS201



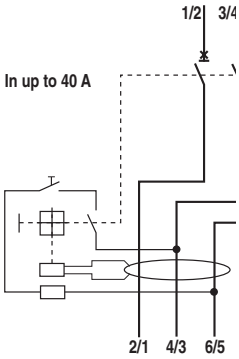

## DS202C



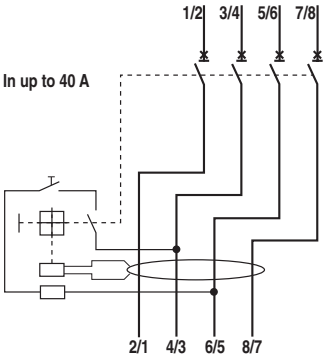

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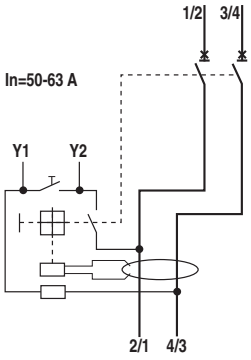

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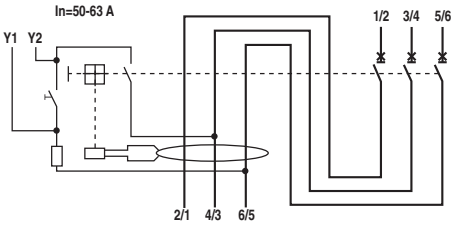

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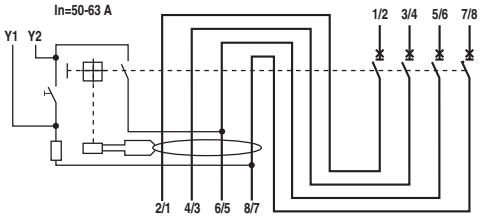

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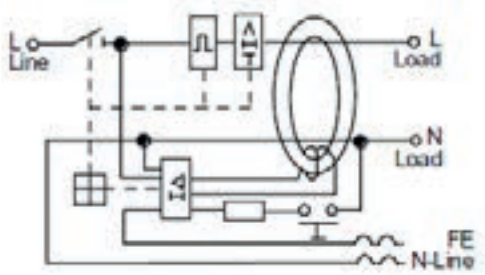

## DS 203




## DS 204



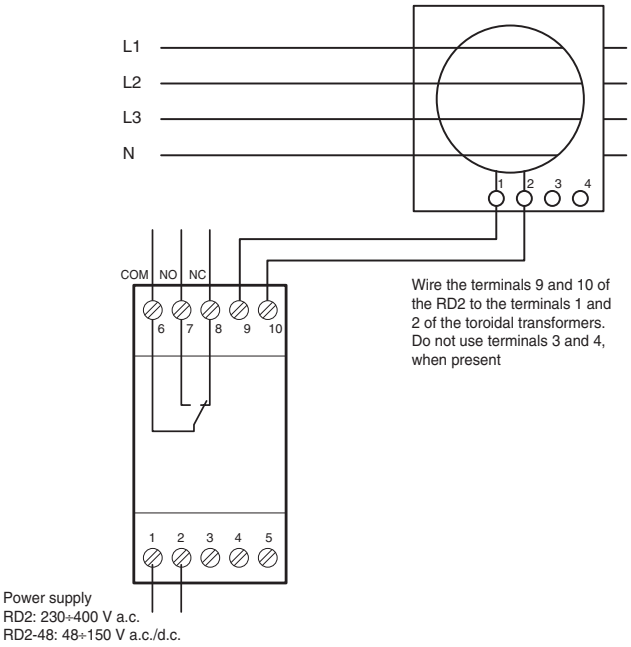

## DS271



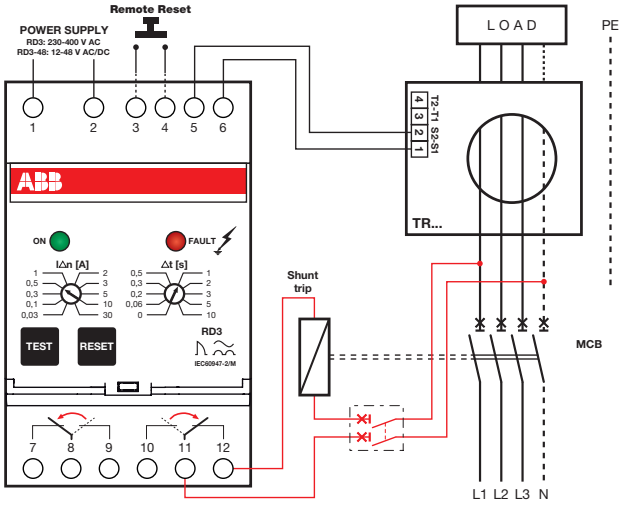
# Quick product references
# RCDs wiring diagrams

## Residual current relays

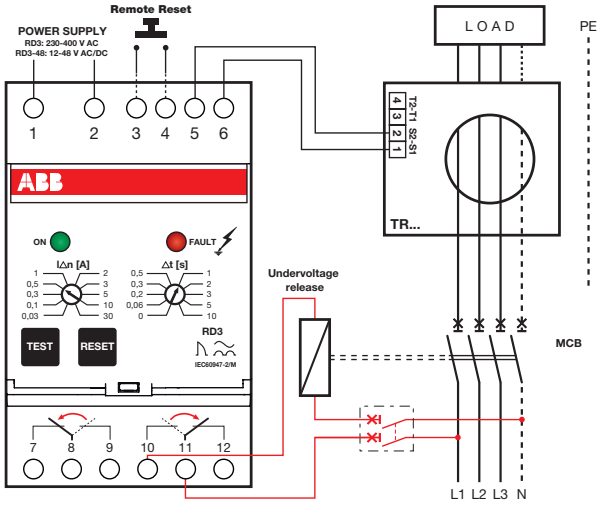
### RD2 residual current relays




### RD3 - undervoltage release wiring

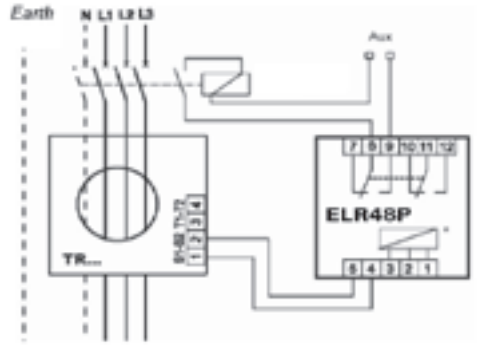



### RD3 - shunt trip wiring

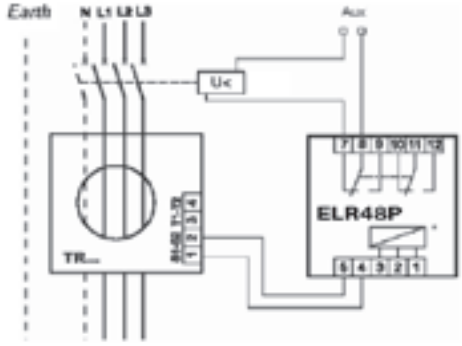



* The residual current protection is not active when this circuit breaker is switch-off

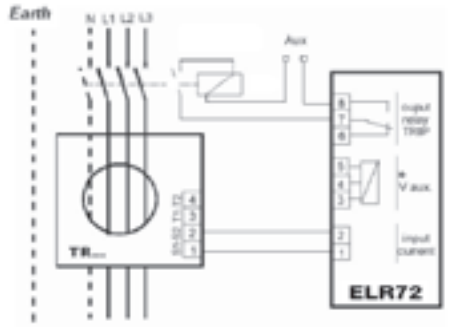
## ELR48P - shunt trip wiring



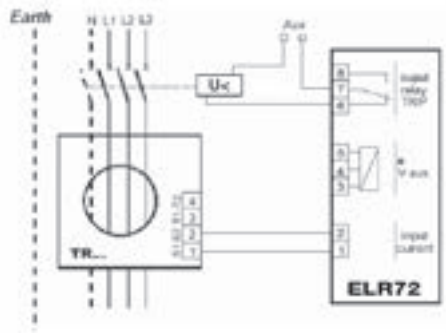

## ELR48P - undervoltage release wiring



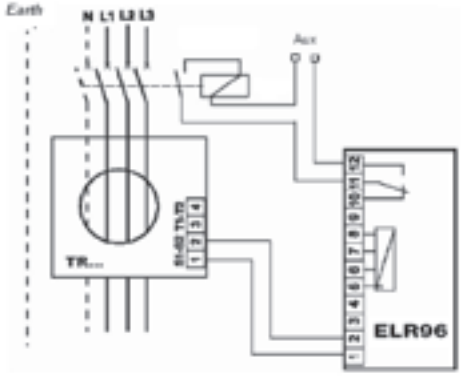

## ELR72 - shunt trip wiring



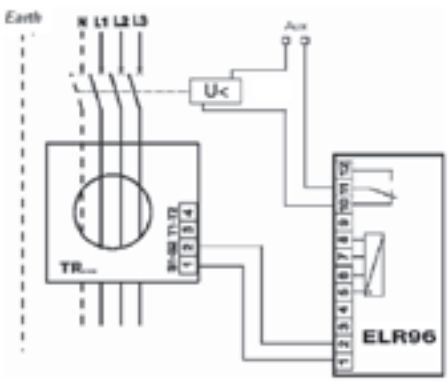

## ELR72 - undervoltage release wiring




## ELR96 - shunt trip wiring

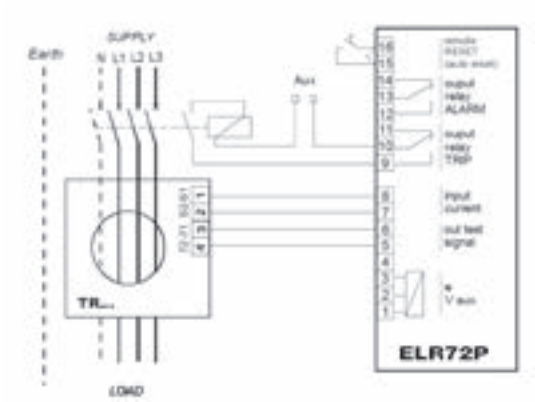



## ELR96 - undervoltage release wiring

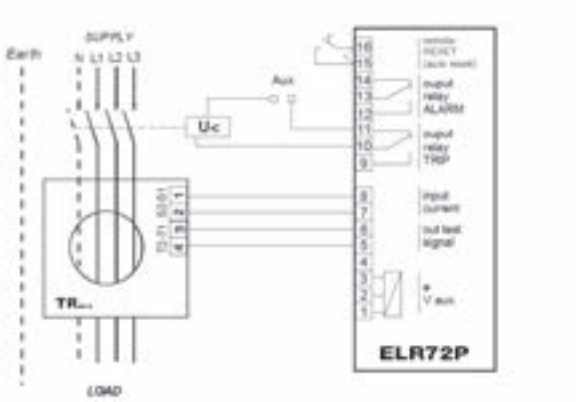


# Quick product references
## RCDs wiring diagrams

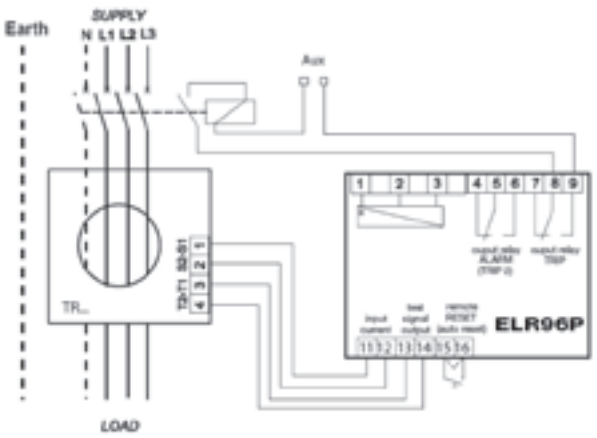
### ELR72P - shunt trip wiring



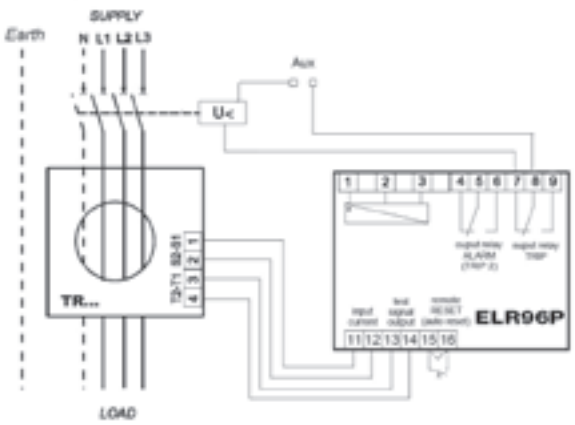

### ELR72P - undervoltage release wiring



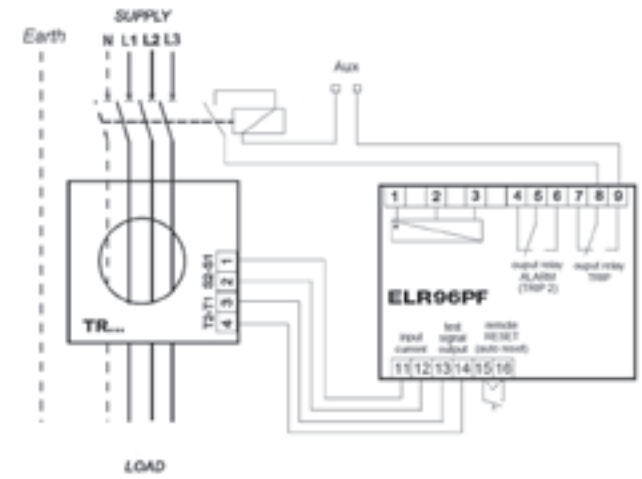

### ELR96P - shunt trip wiring



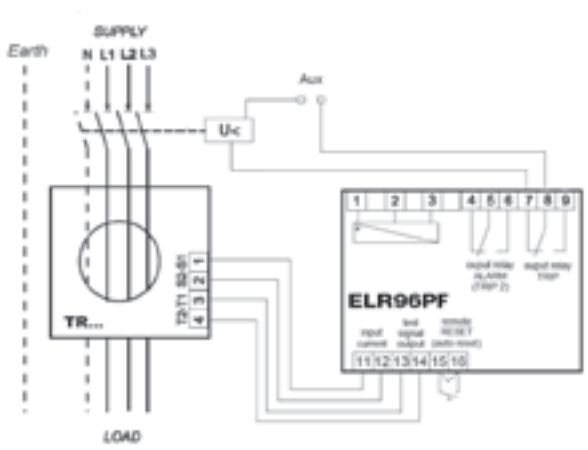

### ELR96P - undervoltage release wiring



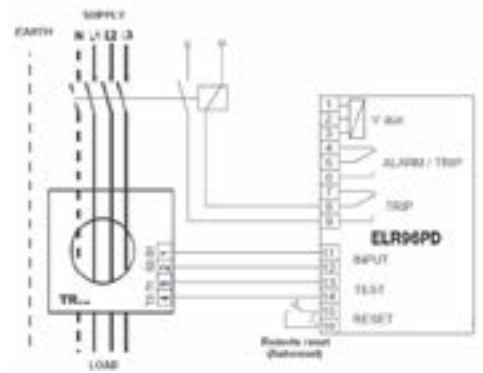
## ELR96PF - shunt trip wiring



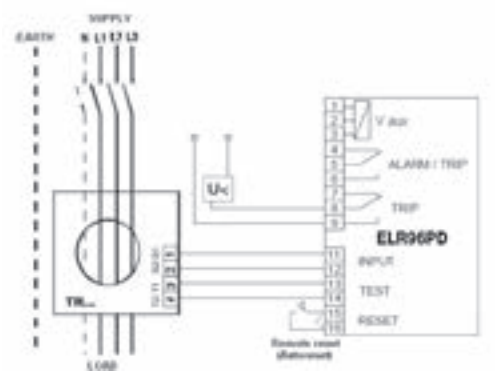

## ELR96PF - undervoltage release wiring




## ELR96PD - shunt trip wiring

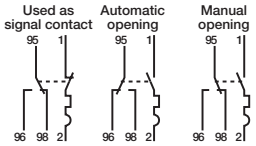



## ELR96PD - undervoltage release wiring

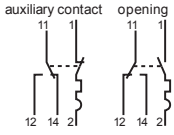


# Quick product references
## Auxiliary elements

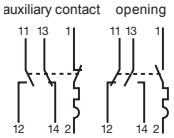
### S2C-S/H6R



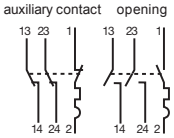

### S2C-H6R



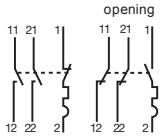

### S2C-H6-11R



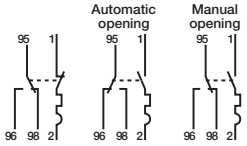

### S2C-H6-20R




### S2C-H6-02R




### SN201-S




### SN201-IH

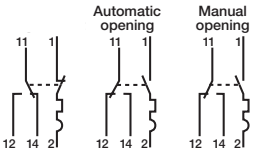
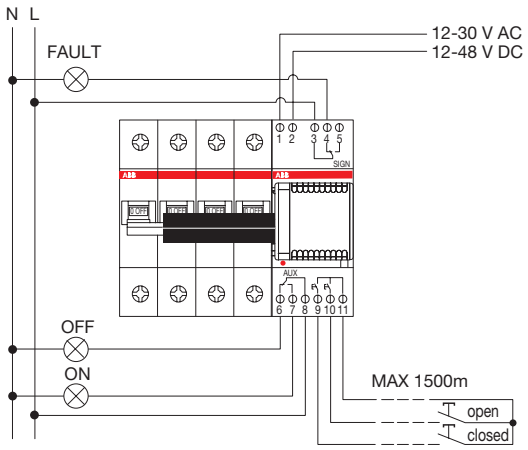


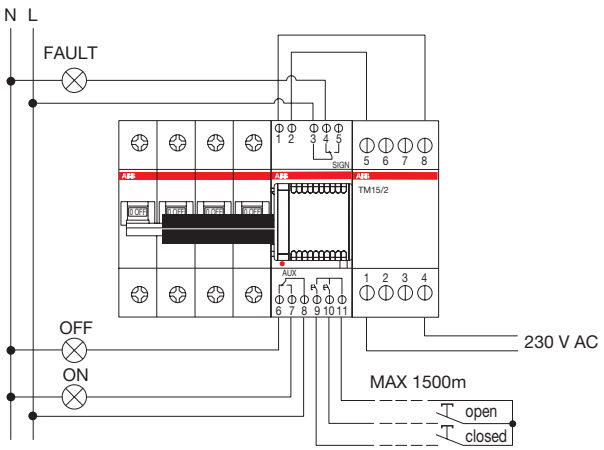

ABB has a full product range of auxiliary contacts completed by the S2C-S/H6R universal contacts. An auxiliary contact indicates the position of the MCB. A signal contact indicates the MCB position plus the fault event, i.e., overload or short-circuit.

## Wiring diagrams for S2C-CM motor operating devices

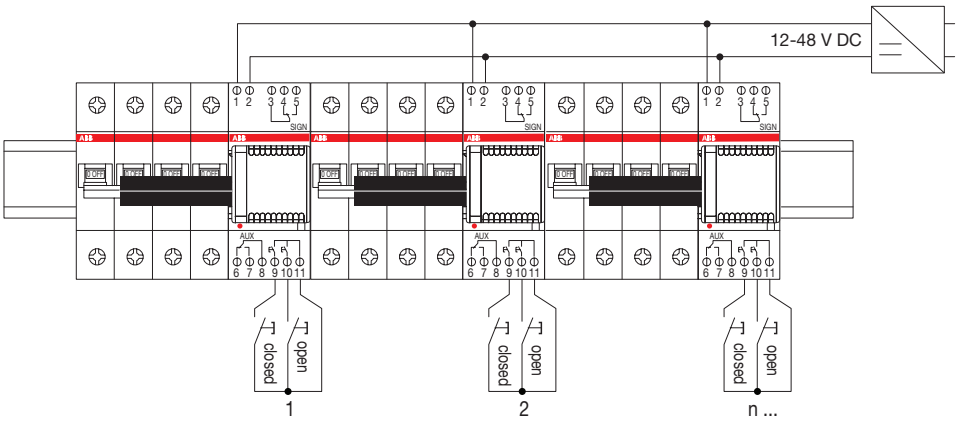
**Low voltage use: 12...30 V AC, 12...48 V DC**



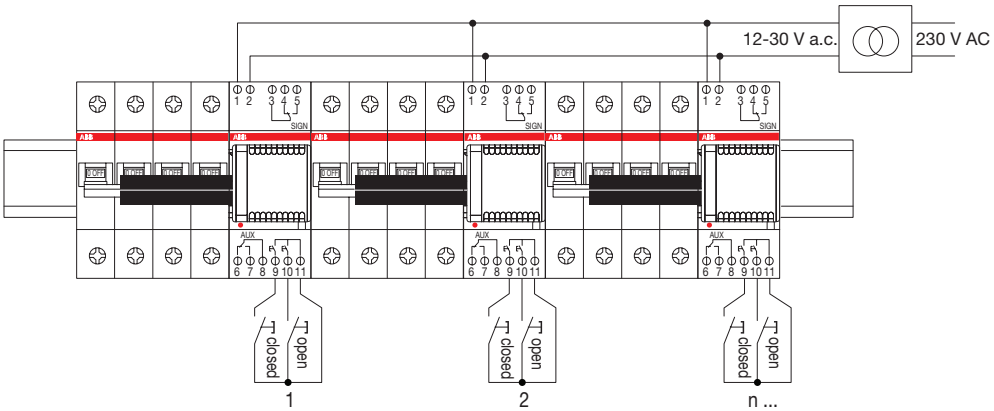

**Use at 230 V AC via a TM15/12 bell transformer**




**Low voltage use of several motor operating devices: 12...30 V AC, 12...48 V DC**



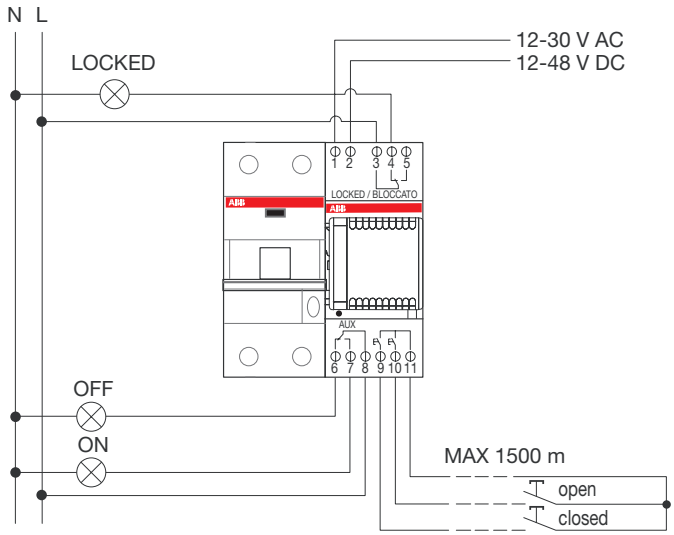

**Use of several motor operating devices at 230 V AC via a single safety transformer**



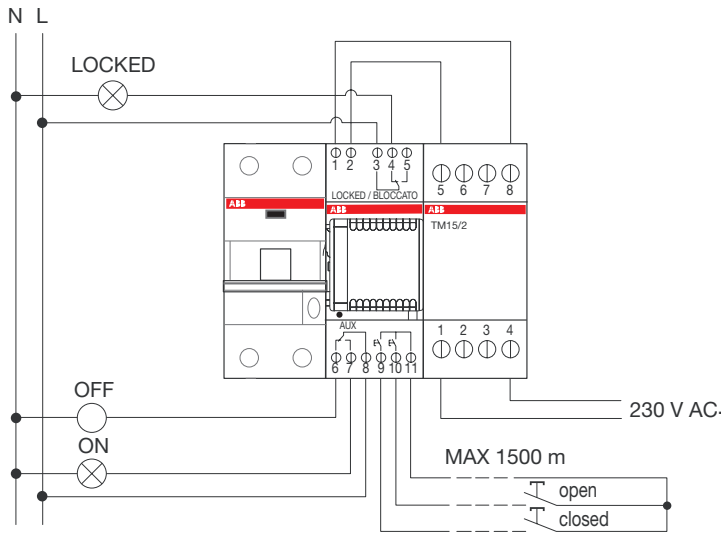
# Quick product references
## Auxiliary elements

### Wiring diagrams for DS2C-CM motor operating devices

**Low voltage use 12...30 V AC, 12...48 V DC**

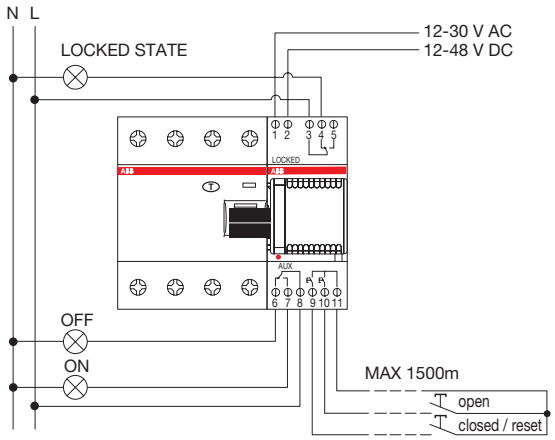



**Use at 230 V AC via a TN15/12 transformer**

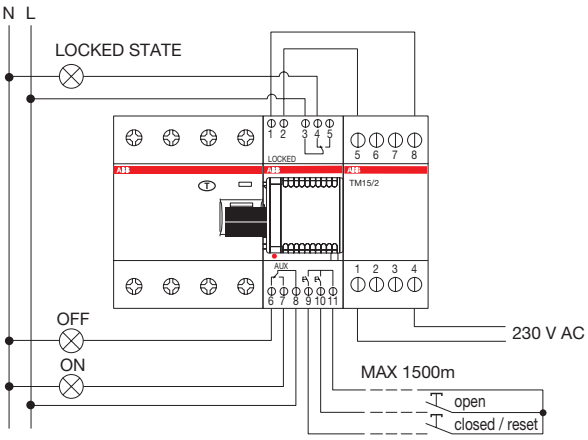


## Wiring diagrams for motor operating device F2C-CM and F2C-ARI auto-reclosing unit

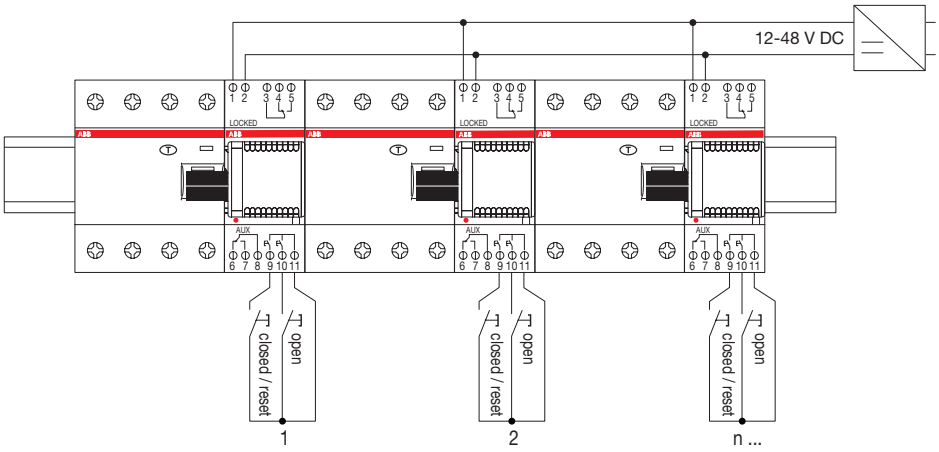
**Low voltage use: 12...30 V AC, 12...48 V DC**



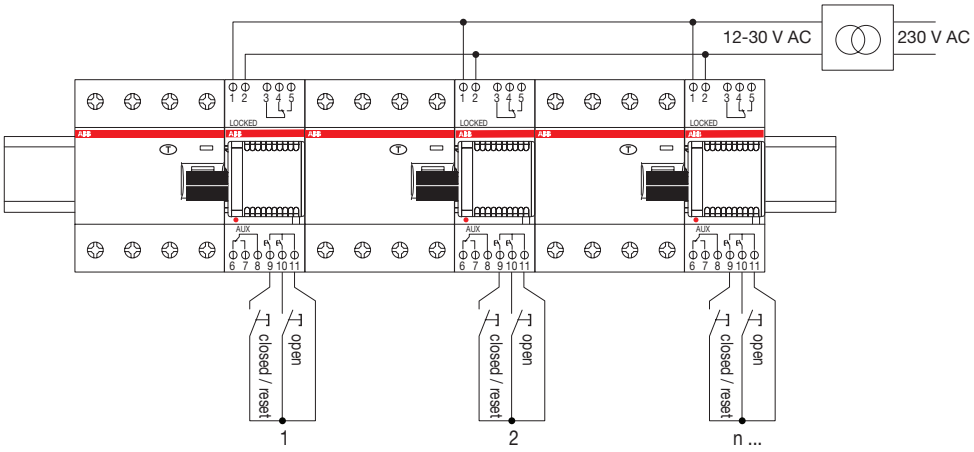

**Use at 230 V AC via a TM15/12 bell transformer**




**Low voltage use of several motor operating devices or auto-reclosing units: 12-30 V AC, 12-48 V DC**

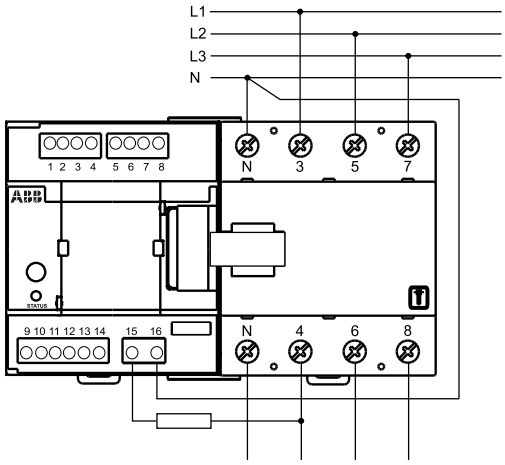



**Use of several motor operating devices or auto-reclosing units at 230 V AC via a single transformer**



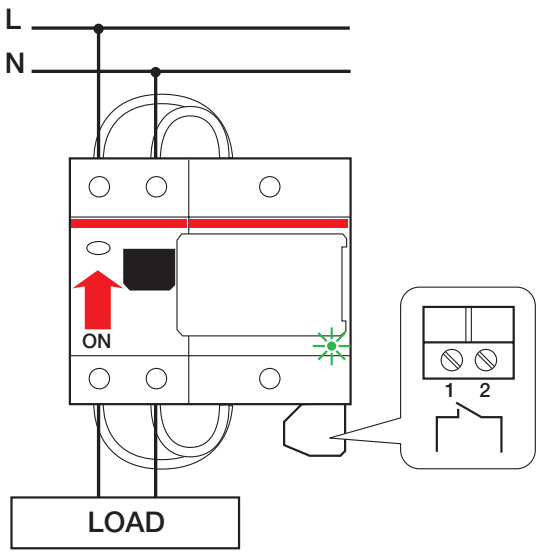
# Quick product references
## Auxiliary elements

### Wiring diagram for F2 CM4 motor operating devices




Output

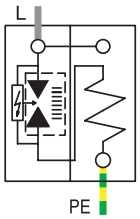
### Wiring diagram for F2C-ARH and F2C-ARH-T



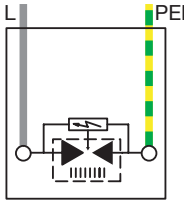
# Quick product references
# Protection and safety wiring diagrams

## Surge Protective Devices - Type 1

### Single pole Type 1 SPD



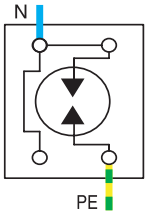
OVR T1 25 255



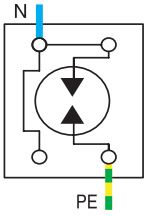
OVR T1 25 440-50



OVR T1 25 255-7

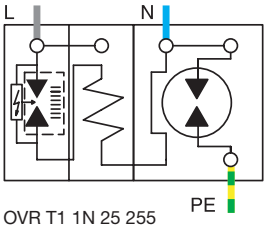


OVR T1 50 N

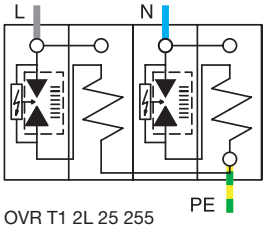


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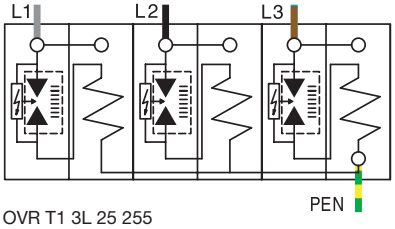
### Multipole Type 1 SPD



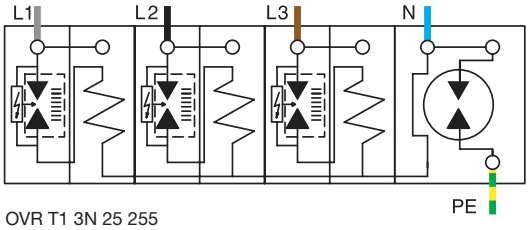
OVR T1 1N 25 255



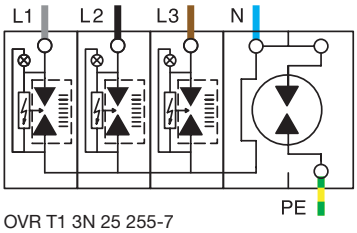
OVR T1 2L 25 255



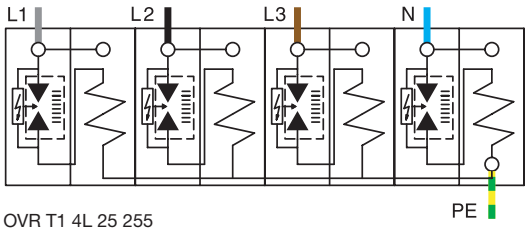
OVR T1 3L 25 255



OVR T1 3N 25 255

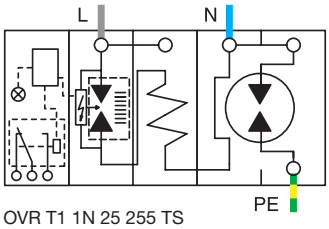


OVR T1 3N 25 255-7

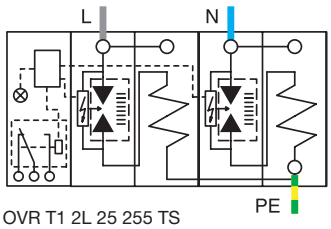


OVR T1 4L 25 255

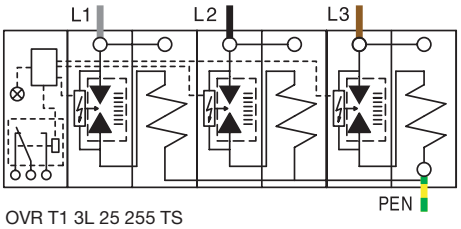
### Multipole Type 1 SPD with remote indication (TS)



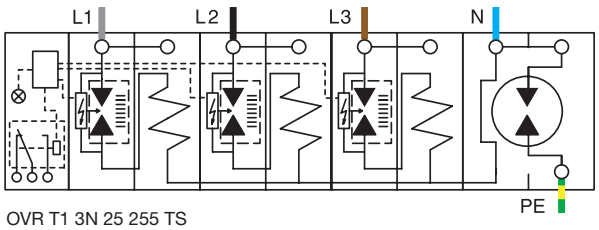
OVR T1 1N 25 255 TS



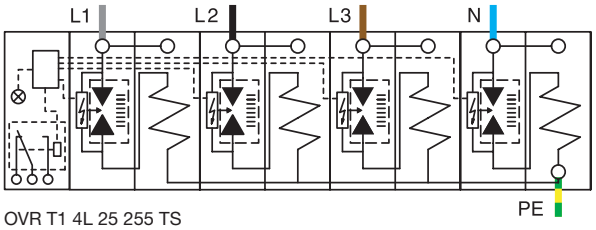
OVR T1 2L 25 255 TS



OVR T1 3L 25 255 TS



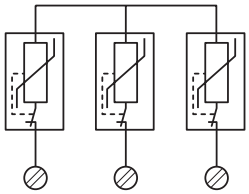
OVR T1 3N 25 255 TS



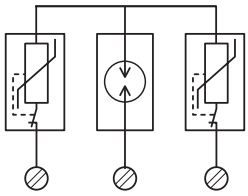
OVR T1 4L 25 255 TS

# Quick product references
# Protection and safety wiring diagrams

## Surge Protective Devices - Photovoltaic SPDs - OVR PV

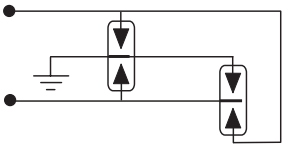


OVR PV T2 40-600 P QS

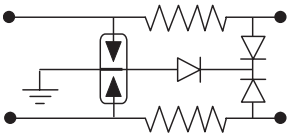


OVR PV T2 40-1000/1500 P QS

## Surge Protective Devices - Low Current SPDs - OVR TC

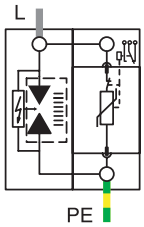


OVR TC 200 V in parallel



OVR TC / xx V / 200 FR in series

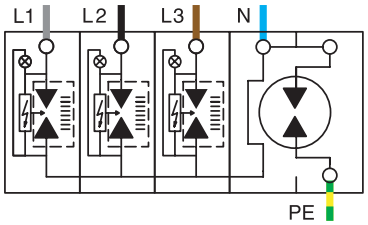
## Surge Protective Devices - Type 1+2




OVR T1+2 25 255 TS



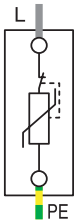

OVR T1+2 15 255-7



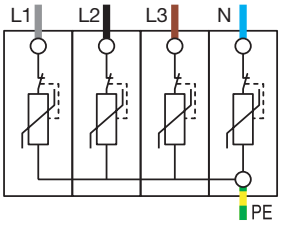

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## Surge Protective Devices - Type 1+2 / Type 2

### Non pluggable Type 2 SPDs



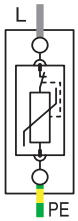

OVR T2 40 275 QS
OVR T2-T3 20 QS




OVR T2 4L 40-275 P QS

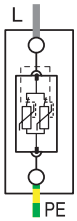
### Pluggable Type 1+2 / Type 2 SPDs

**Single pole Type 2 SPD**



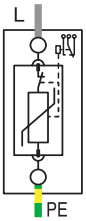

OVR T2-T3 20-275 P QS,
OVR T2 40-275 P QS,
OVR T2-T3 20-440 P QS,
OVR T2 40-275 P QS

**Single pole Type 2 SPD with safety reserve (s)**



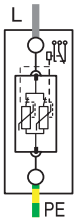

OVR T2 40-275s P QS,
OVR T2 80 275s P QS,
OVR T2 40-440s P QS,
OVR T2 80-440s P QS,
OVR T1+2 7 275s P

**Single pole Type 2 SPD with remote indication (TS)**



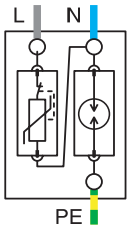

OVR T2-T3 20-275 P TS QS,
OVR T2 40-275 P TS QS,
OVR T2-T3 20-440 P TS QS,
OVR T2 40-440 P TS QS

**Single pole Type 2 SPD with safety reserve (s) and remote indication (TS)**

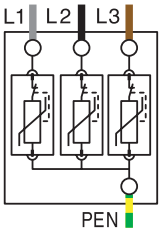



OVR T2 40-275s P TS QS,
OVR T2 80-275s P QS,
OVR T2 40-440s P TS QS,
OVR T2 80-440s P TS QS

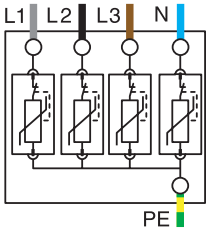
### Multipole Type 2 SPD



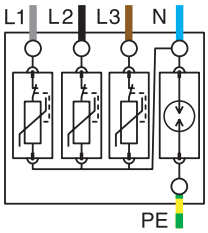

OVR T2-T3 1N 20-275 P QS,
OVR T2 1N 40-275 P QS




OVR T2-T3 3L 20-275 P QS,
OVR T2 3L 40-275 P QS

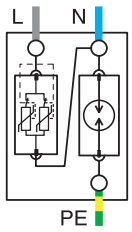



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OVR T2 4l 40-275 P QS

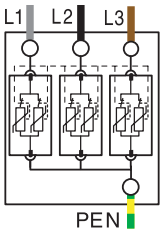



OVR T2-T3 3N 20-275 P QS,
OVR T2 3N 40-275 P QS

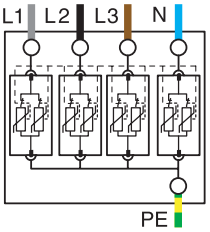
### Multipole Type 2 SPD with safety reserve (s)



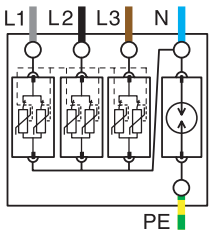

OVR T2 1N 40-275s P QS,
OVR T2 1N 80-275s P QS,
OVR T1+2 1N 7 275s P




OVR T2 3L 40-275s P QS,
OVR T2 3L 80-275s P QS,
OVR T1+2 3L 7 275s P

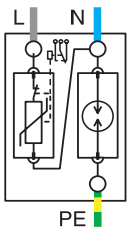



OVR T2 4L 40-275s P QS,
OVR T2 4L 80-275s P QS,
OVR T1+2 4L 7 275s P

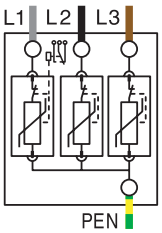



OVR T2 3N 40-275s P QS,
OVR T2 3N 80-275s P QS,
OVR T1+2 3N 7 275s P

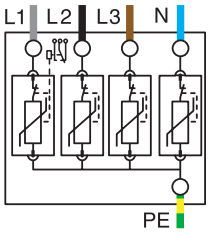
### Multipole Type 2 SPD with remote indication (TS)



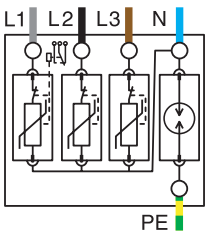

OVR T2-T3 1N 20-275 P TS QS,
OVR T2 1N 40-275 P TS QS




OVR T2-T3 3L 20-275 P TS QS,
OVR T2 3L 40-275 P TS QS

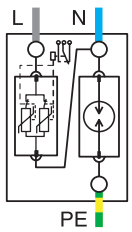



OVR T2-T3 4L 20-275 P TS QS,
OVR T2 4l 40-275 P TS QS

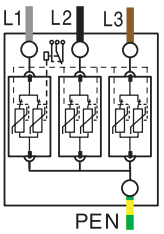



OVR T2-T3 3N 20-275 P TS QS,
OVR T2 3N 40-275 P TS QS

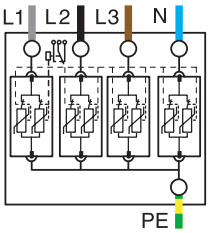
### Multipole Type 2 SPD with safety reserve (s) and remote indication (TS)



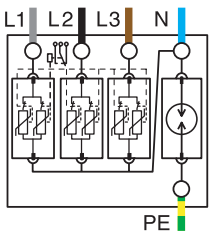

OVR T2 1N 40-275s P TS QS,
OVR T2 1N 80-275s P TS QS




OVR T2 3L 40-275s P TS QS,
OVR T2 3L 80-275s P TS QS

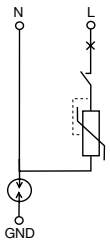



OVR T2 4L 40-275s P TS QS,
OVR T2 4L 80-275s P TS QS



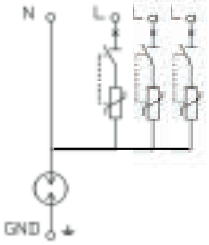

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### Type 2 auto-protected SPD

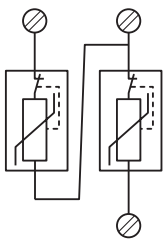



OVR Plus N1 20

### Type 2 Special 24/48 AC & DC - OVR 75 V




OVR Plus N3 20



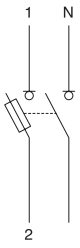
OVR T2 2L 20-75 P

# Quick product references
## Protection and safety wiring diagrams

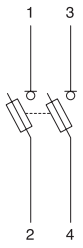
### E90



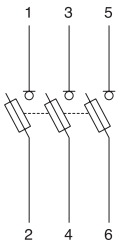

1P



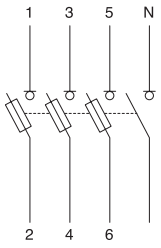

1P+N



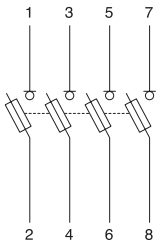

2P




3P

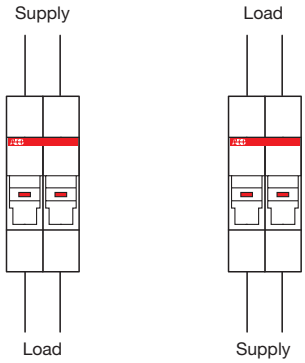



3P+N



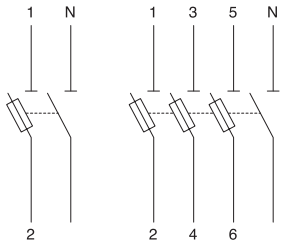

4P

### E 90 with blown fuse indicator light in alternate current




For direct current systems please refer to E 90 PV wiring diagram

### E90h

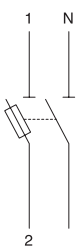



1P+N 3P+N

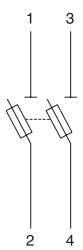
### E90



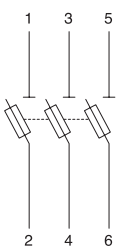

1P



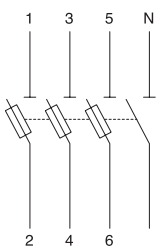

1P+N



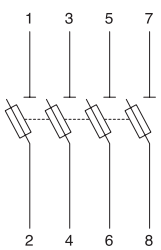

2P




3P

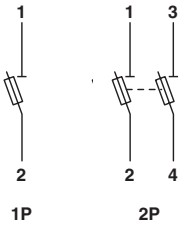



3P+N

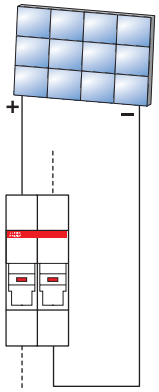



4P

## E90 PV

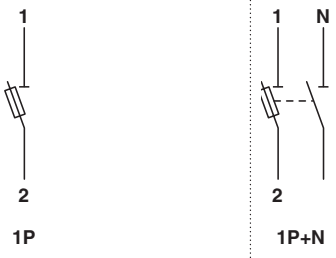



## E 90 PV with blown fuse indicator light in direct current

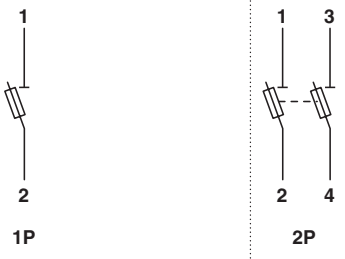



In direct current systems, since the LED allows the current to flow only from positive to negative, the wiring of the blown fuse indicator version should follow the current direction as shown in the diagram

## E90 50/125




## E90 30/60 J class

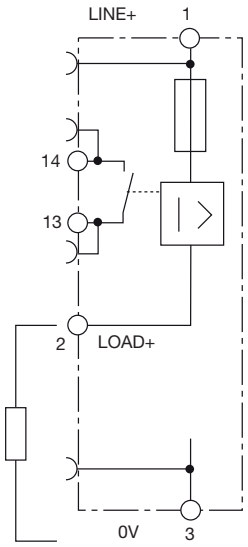



## ILTS-E



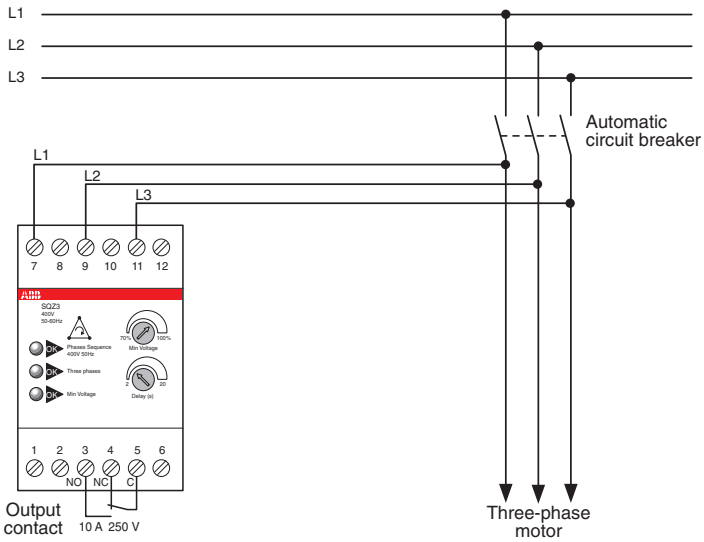
# Quick product references
## Protection and safety wiring diagrams

### EPD24

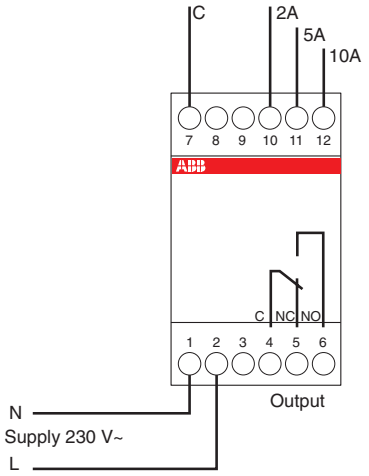


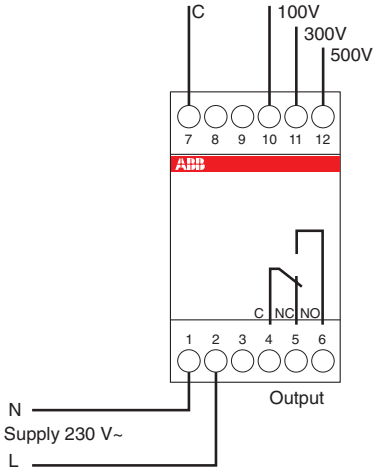

EPD24-TB-101
without signal input
with signal output F
(single signal, NO)
Operating condition: 13-14 closed
Fault condition: 13-14 open

### SQZ3

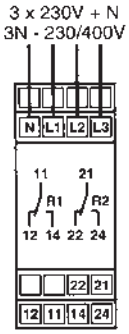


## RH/RL

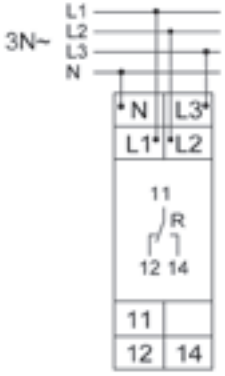


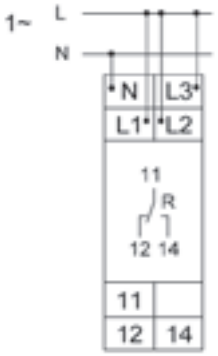




## E 236 US 1, E 236 US 2

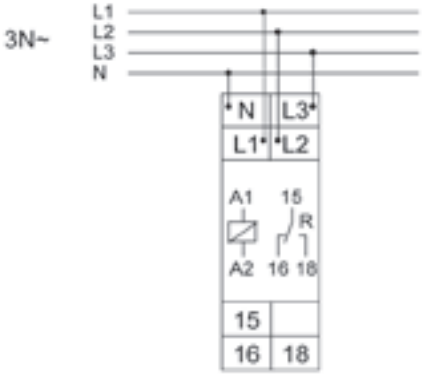



## E236-US 1.1 and US 2.1



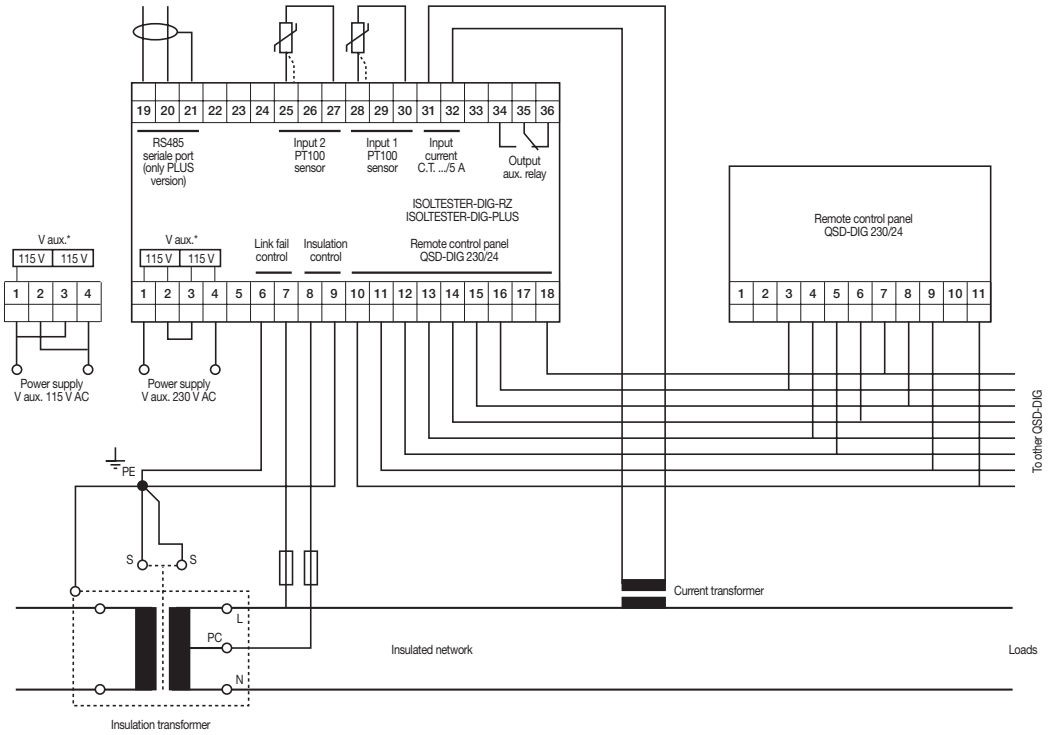




## E236-US 1.1D

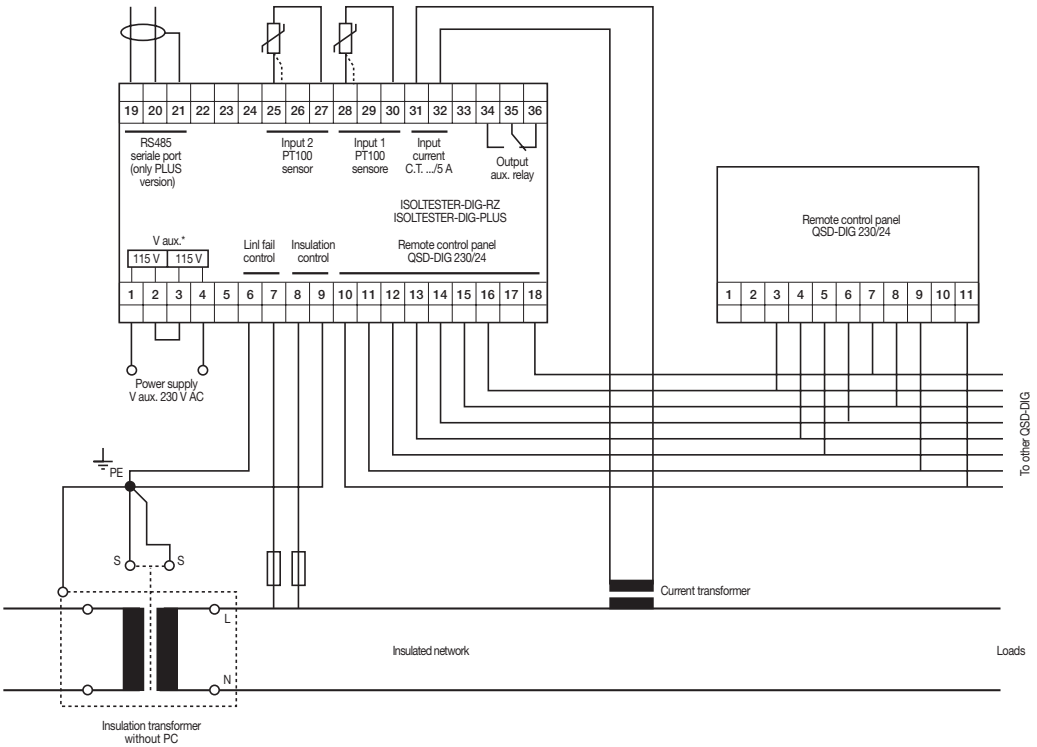


# Quick product references
# Protection and safety wiring diagrams

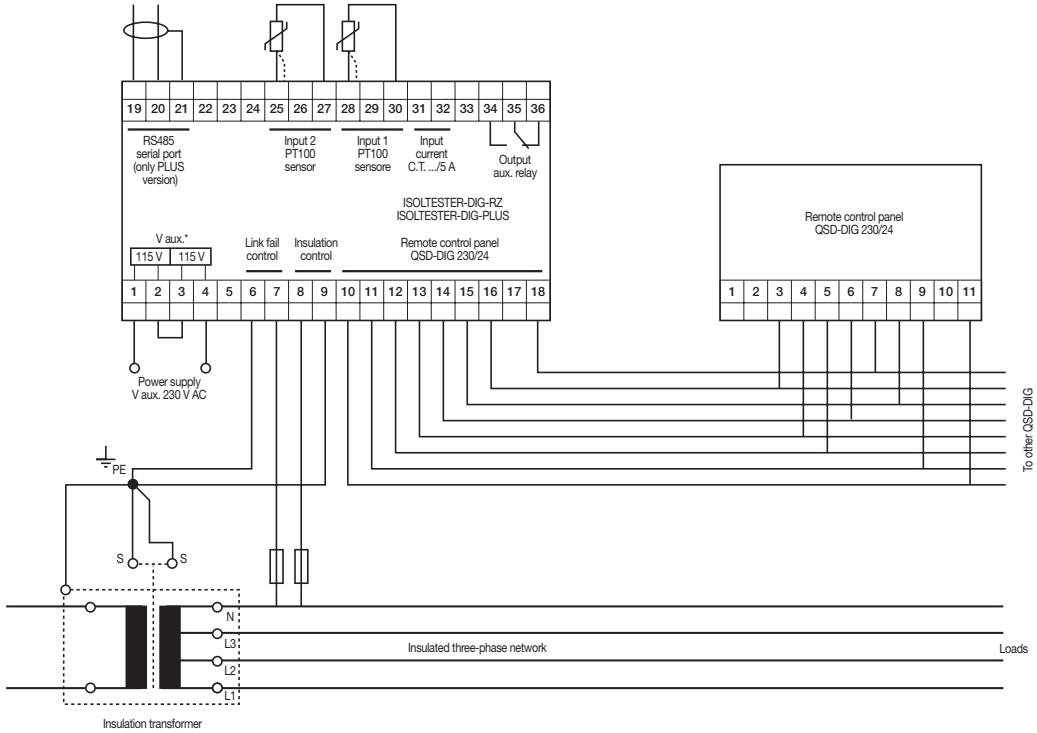
## ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 - with transformer with central socket (PC)



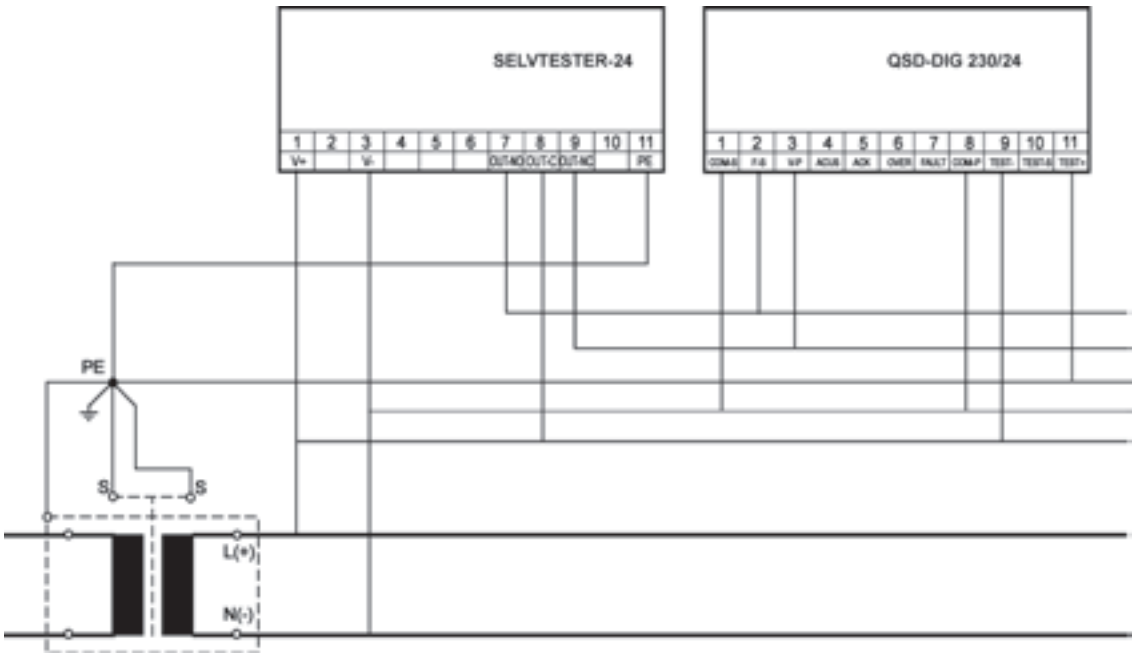

## ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -



## ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -

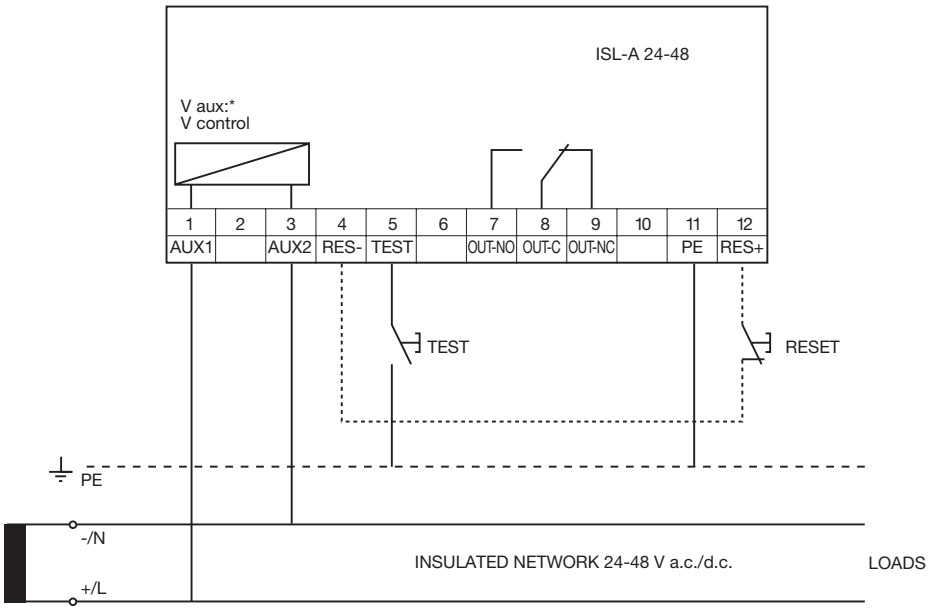



## ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -



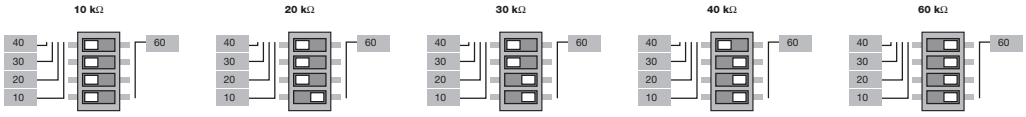
# Quick product references
## Protection and safety wiring diagrams

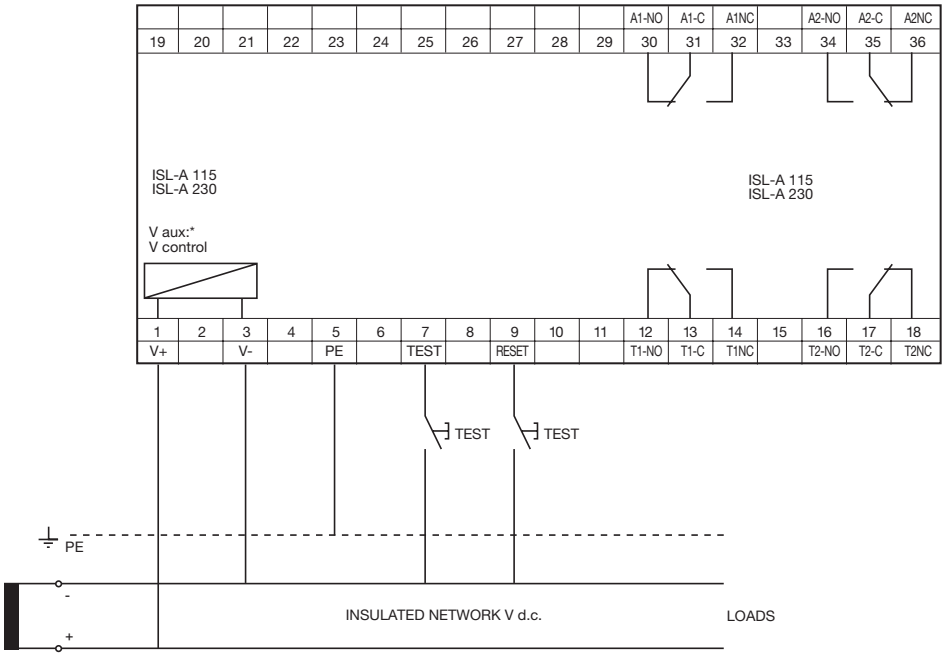
### ISL-A 24-48




MICROSWITCH SETTINGS

The front microswitches allow the insulation threshold level to be adjusted between 10 and 60 kΩ, as shown below:






MICROSWITCH SETTINGS

The front microswitches are used for adjusting the insulation threshold level, enabling the fail-safe function and configuring the reset mode for both the alarm and trip thresholds.

### Microswitches A, B, C, D for programming the trip and alarm thresholds:

| ALARM | | TRIP | |
|---|---|---|---|
| 300 kΩ: | A=0, B=0, C=0, D=0 | 100 kΩ: | A=0, B=0, C=0, D=0 |
| 150 kΩ: | A=1, B=0, C=0, D=0 | 60 kΩ: | A=1, B=0, C=0, D=0 |
| 80 kΩ: | A=1, B=1, C=0, D=0 | 40 kΩ: | A=1, B=1, C=0, D=0 |
| 50 kΩ: | A=1, B=1, C=1, D=0 | 20 kΩ: | A=1, B=1, C=1, D=0 |
| 30 kΩ: | A=1, B=1, C=1, D=1 | 10 kΩ: | A=1, B=1, C=1, D=1 |

### Microswitch E for configuring the FAIL SAFE mode

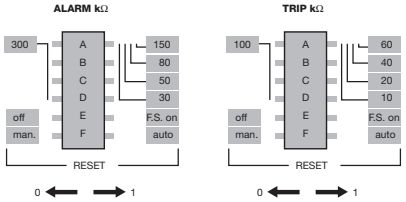
E=0 fail safe mode disabled

E=1 fail safe mode enabled

### Microswitch F for configuring the RESET mode

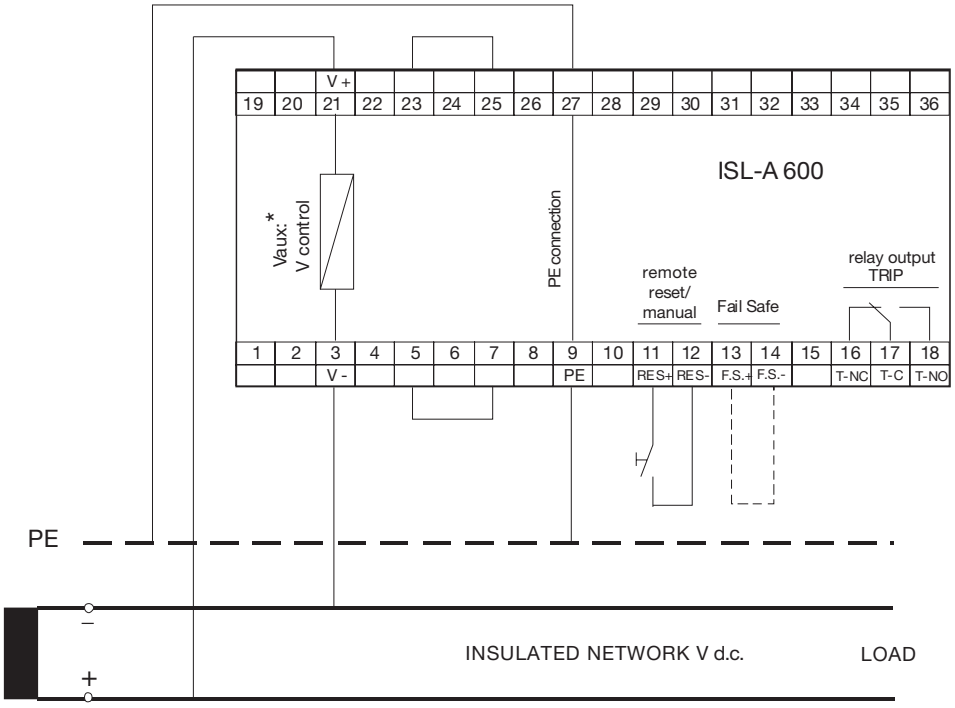
F=0 manual reset

F=1 automatic reset

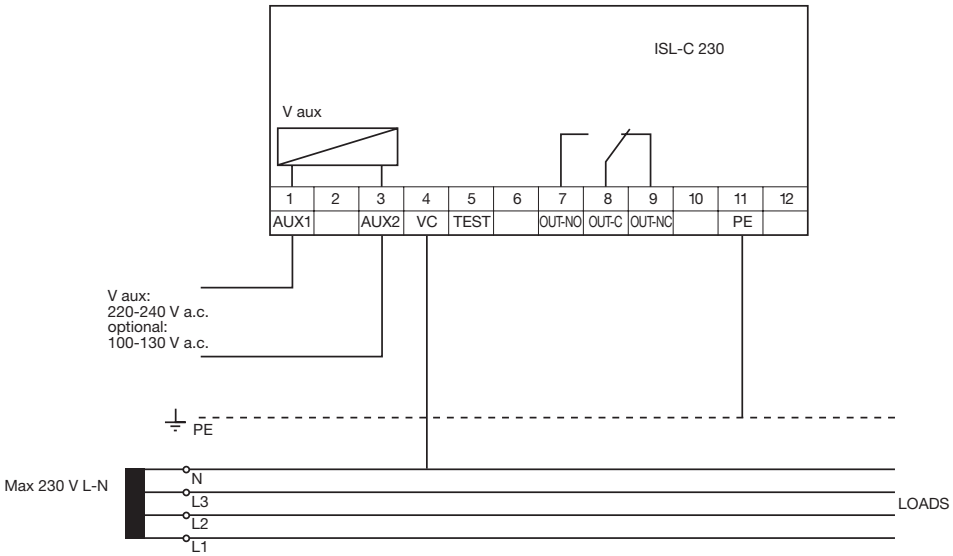


# Quick product references
## Protection and safety wiring diagrams

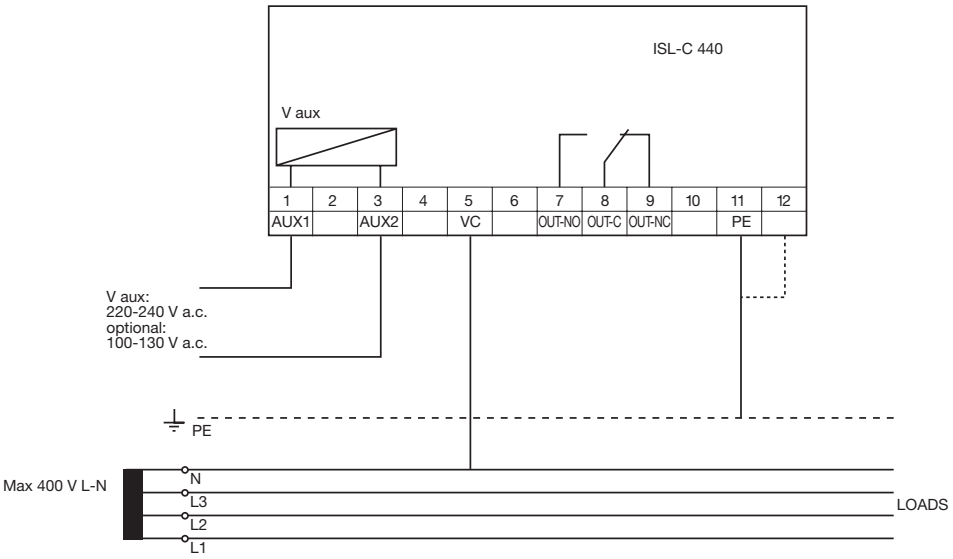
### ISL-A 600




### ISL-C 230

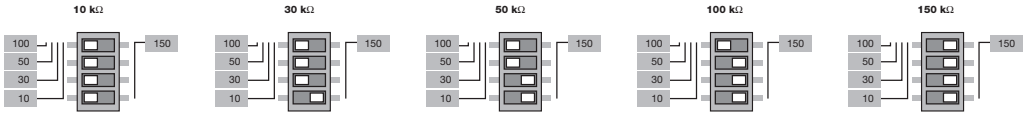


## ISL-C 440



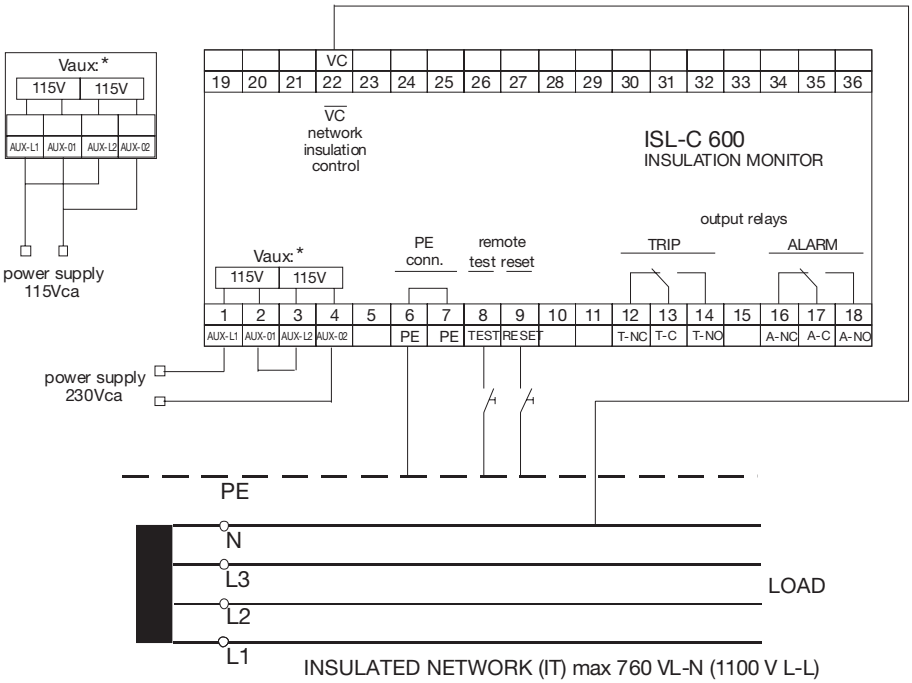

MICROSWITCH SETTINGS

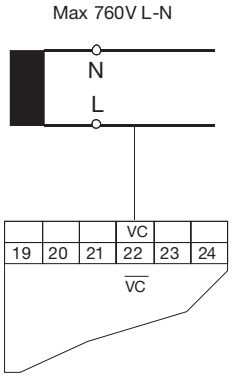
The front microswitches are used for adjusting the insulation threshold level between 10 and 150 kΩ, as shown below:

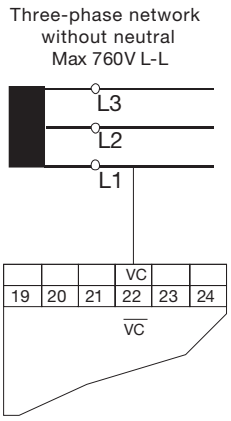


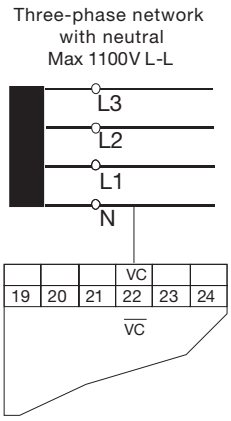
# Quick product references
## Protection and safety wiring diagrams

### ISL-C 600

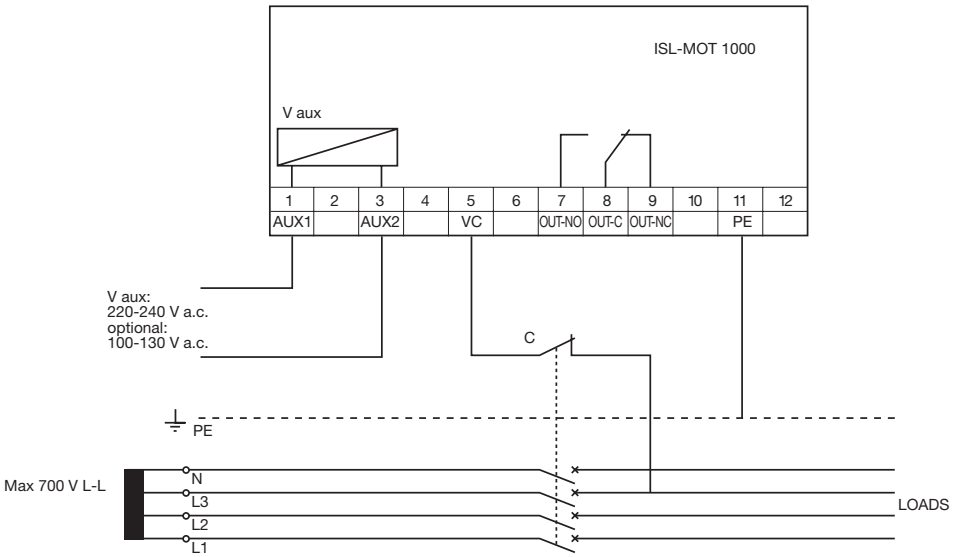


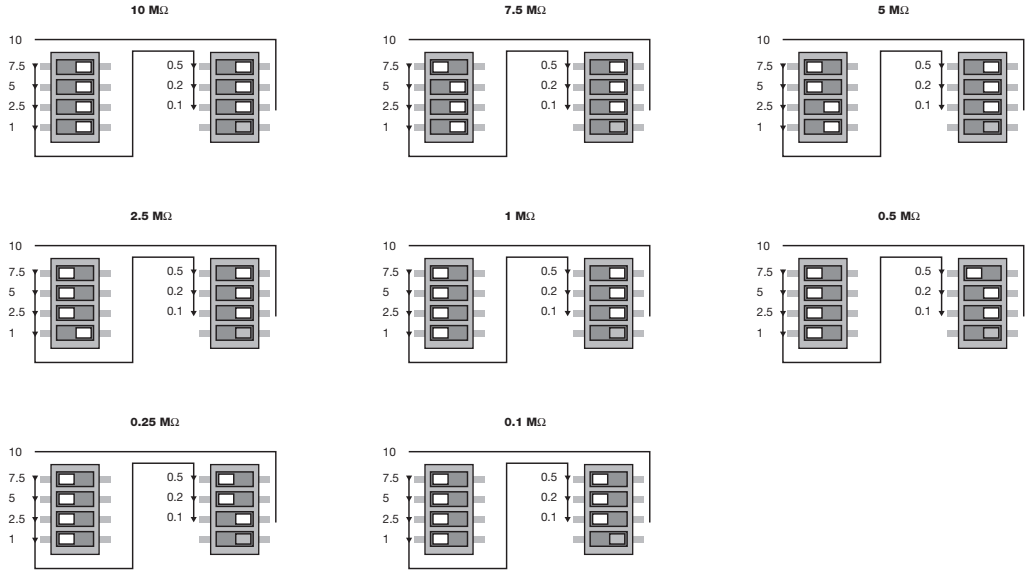



## ISL-MOT 1000



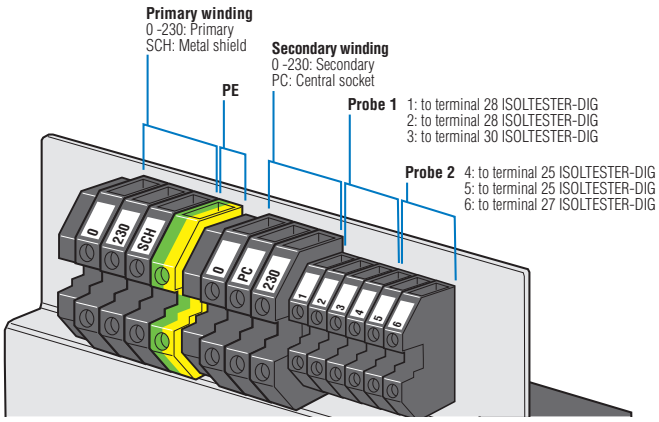

MICROSWITCH SETTINGS

The front microswitches are used for adjusting the insulation threshold level between 0.1 and 10 MΩ. A total of 7 micro-switches are used, divided into two groups as shown below:



# Quick product references
## Protection and safety wiring diagrams

TI



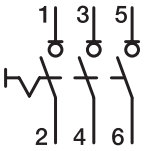
# Quick product references
## Command and signalling wiring diagrams

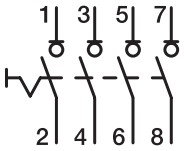
**E200/SD 200/SHD 200**



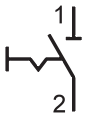


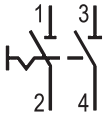


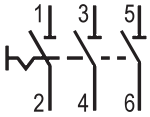


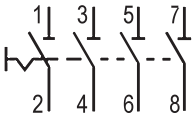




**E210**

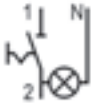


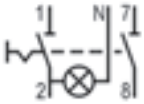




ON / OFF switch

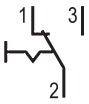


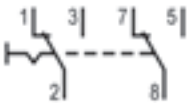







Off switches with indicator lamps

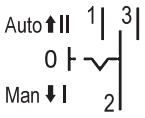


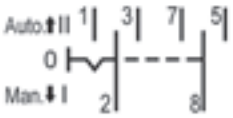




Change-over switches

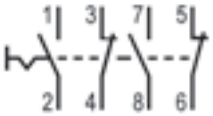
# Quick product references
## Command and signalling wiring diagrams

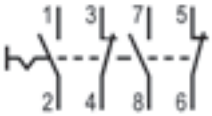
### E210 group switches

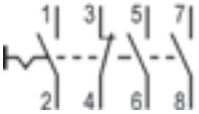



### E210 control switches




### E210 pushbutton




### E210 luminous Pushbutton

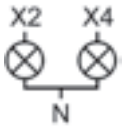


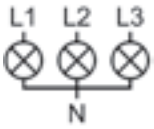




### E210 indicator Light

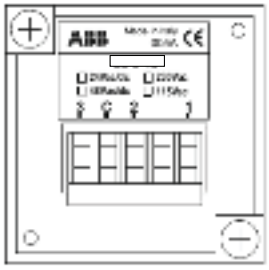


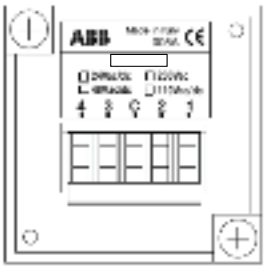



## SL

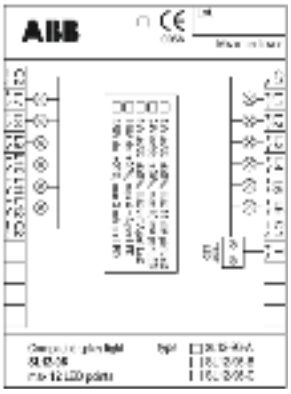
SL-3-48 24Vac/dc
SL-3-48 48Vac/dc
SL-3-48 115Vac
SL-3-48 115Vdc
SL-3-48 230Vac



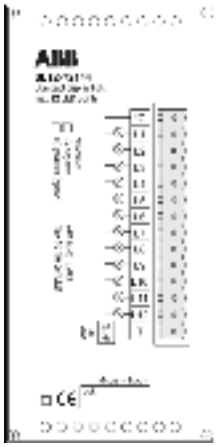
SL-4-48 24Vac/dc
SL-4-48 48Vac/dc
SL-4-48 115Vac
SL-4-48 115Vdc
SL-4-48 230Vac



SL-12-96 24Vac/dc
SL-12-96 48Vac/dc
SL-12-96 115Vac
SL-12-96 115Vdc
SL-12-96 230Vac



SL-12-72144 24Vac/dc
SL-12-72144 48Vac/dc
SL-12-72144 115Vac
SL-12-72144 115Vdc
SL-12-72144 230Vac



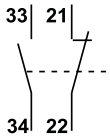
## ESB EN

### Contact Blocks

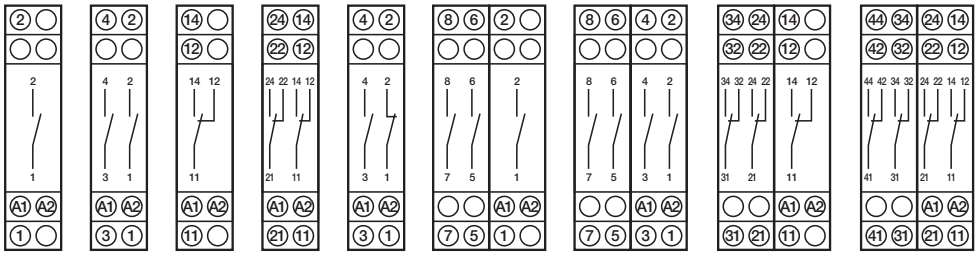
**EH 04-20**




**EH 04-11**

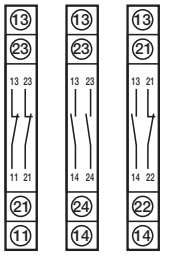



## E259




E259 16-10 E259 16-20 E259 16-19 E259 16-29 E259 16-11 E259 16-30 E259 16-40 E259 16-39 E259 16-49

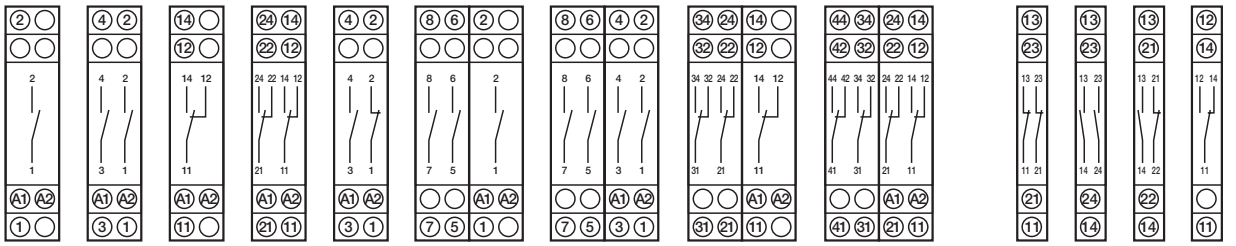
**Auxiliary contacts**



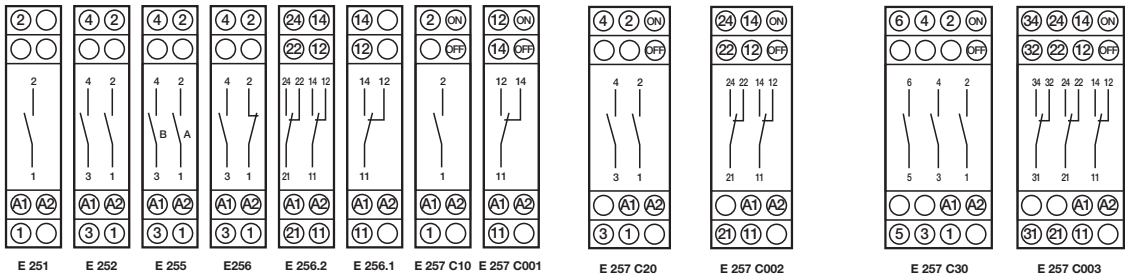

E250 H02 E250 H20 E250 H11

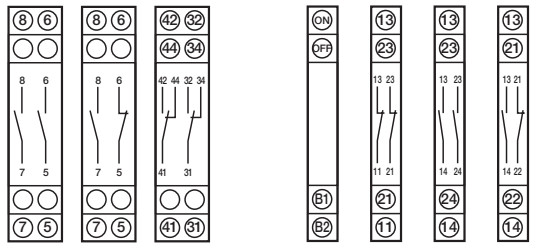
# Quick product references
# Command and signalling wiring diagrams

## E250



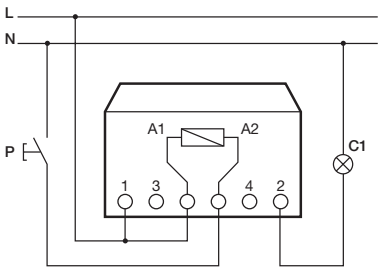

## E255, E257



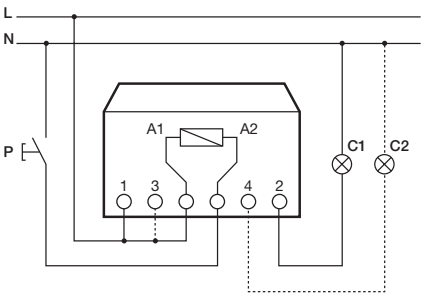




## FLR

FLR1-12, FLR1-230

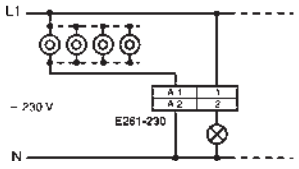



FLR5-12, FLR5-230



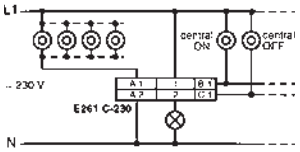
## E260

**E 261-230**



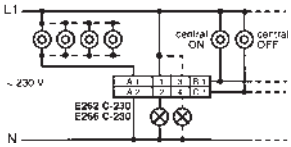

2CDC 052 087 F0003

**E 261 C-230**



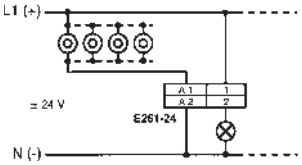

2CDC 052 089 F0003

**E 266 C-230**



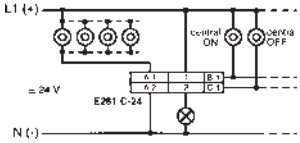

2CDC 052 092 F0003

**E 261-24**




2CDC 052 086 F0003

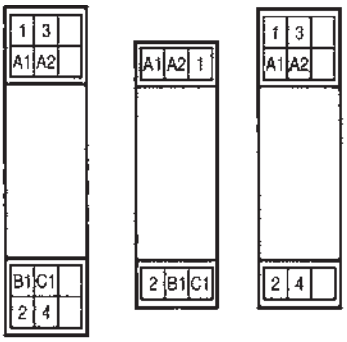
**E 261 C-24**




2CDC 052 088 F0003

* E 260 C
Caution!
The same electr. potential must be applied to terminals A1, B1 and C1.

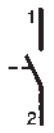
## E260




**E 266 C**
**E 262 C**

**E 261**
**E 261 C**

**E 266**
**E 262**




**E 261-**



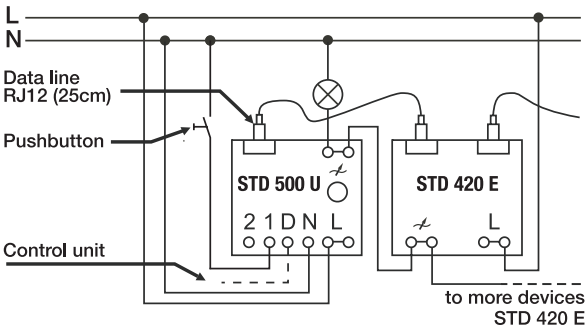

**E 266**



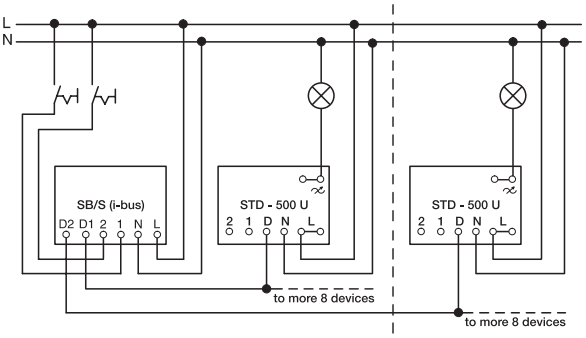

**E 262**

# Quick product references
# Command and signalling wiring diagrams

## STD




**STD-500 U**

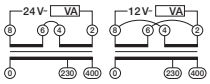



**STD-500 U, SB/S or PSB/S**

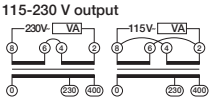
## TM-C, TM-S, TM-I

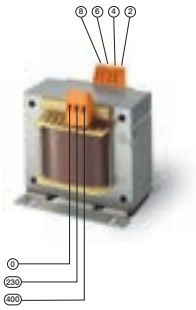
### TM-C

Label on product:
12-24 V output



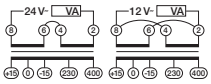

115-230 V output



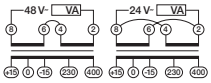




### TM-S, TM-I

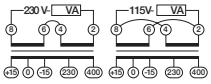
Label on product:
12-24 V output TM-S

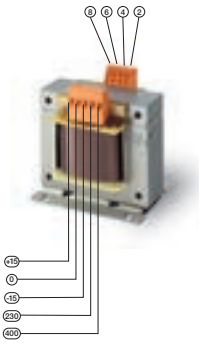



24-48 V output TM-S



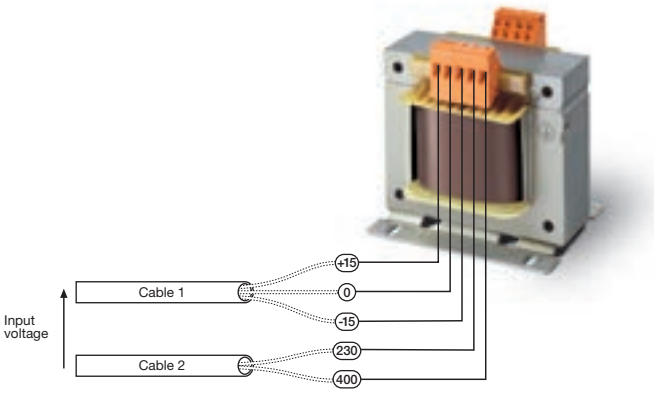

115-230 V output TM-I



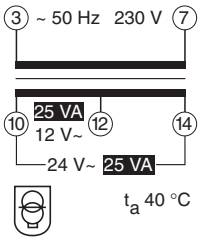

Primary voltage TM-I, TM-S

| | | Cable 2 | |
|---|---|---|---|
| | | **230** | **400** |
| **Cable 1** | **-15** | 215V | 385V |
| | **0** | 230V | 400V |
| | **15** | 245V | 415V |

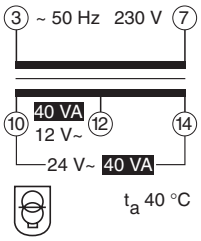


## TS-C

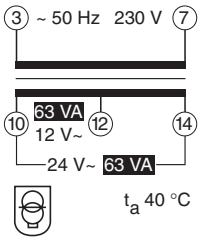
### TS25/12-24 C




### TS40/12-24 C

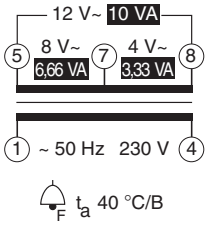



### TS63/12-24 C

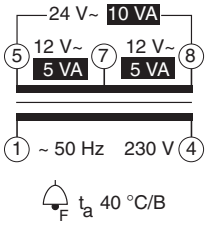



## TM

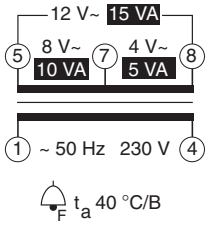
### TM10/12



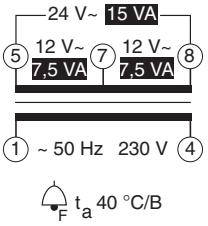

### TM10/24



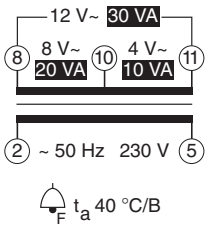

### TM15/12



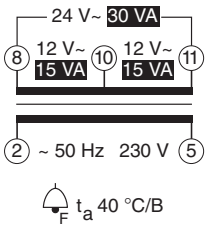

### TM15/24



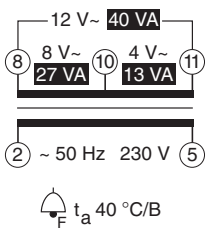

### TM30/12



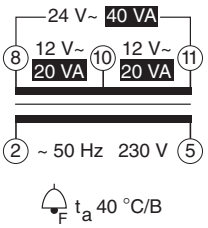

### TM30/24




### TM40/12



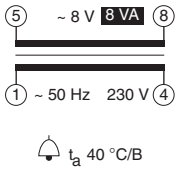

### TM40/24



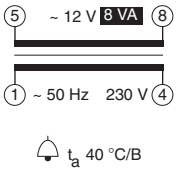
# Quick product references
## Command and signalling wiring diagrams

### TS

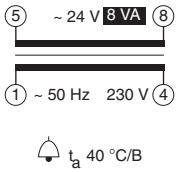
TS8/8



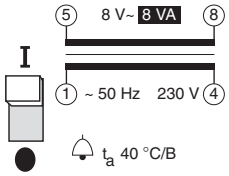

TS8/12



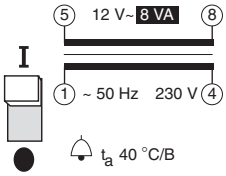

TS8/24



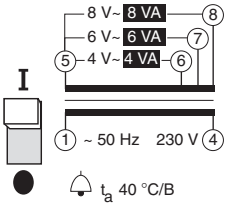

TS8/8 SW



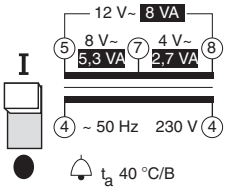

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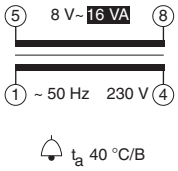

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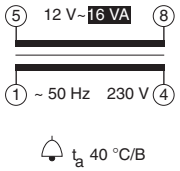

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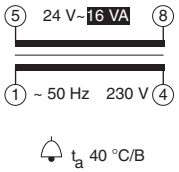

TS16/8



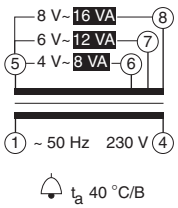

TS16/12



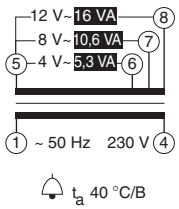

TS16/24



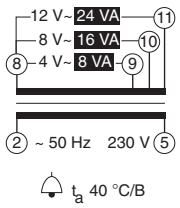

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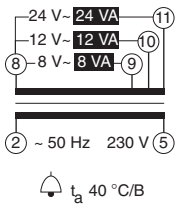

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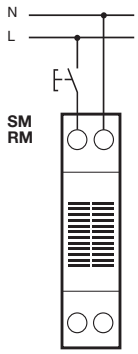

TS24/4-8-12

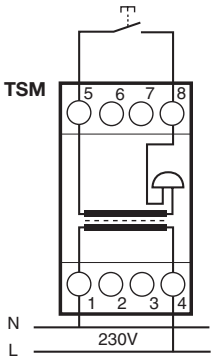


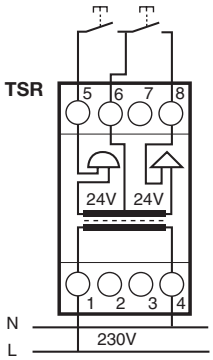

TS24/8-12-24




### SM, RM...



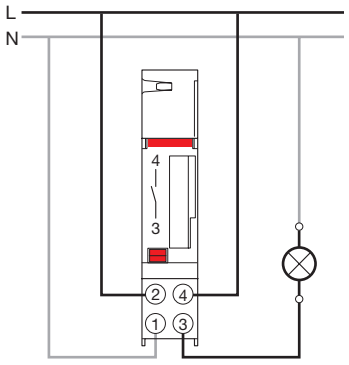



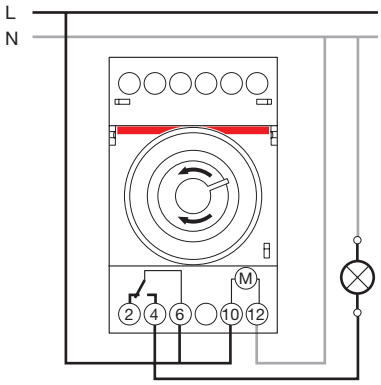
# Quick product references
## Control and automation wiring diagrams

### AT

**AT1, AT1-R**

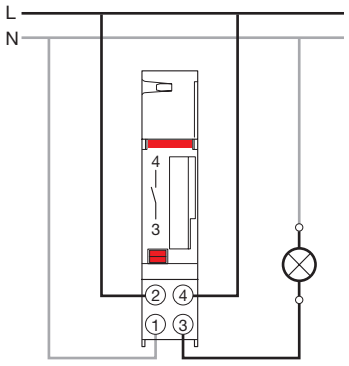



**AT3, AT3-R, AT3-7R**

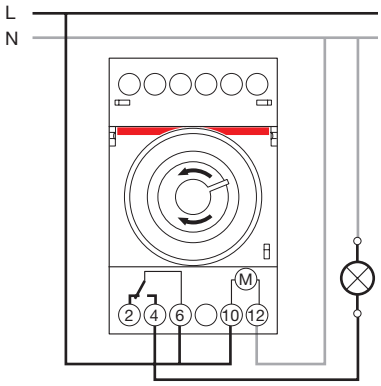



### AT

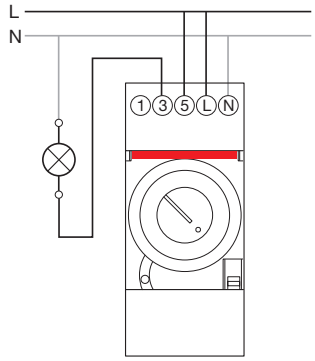
**AT1, AT1-R**



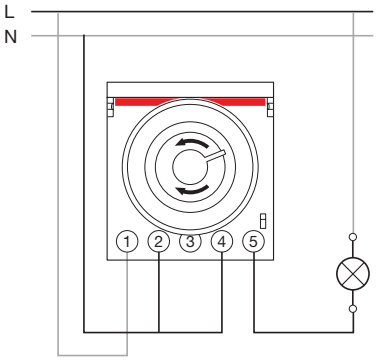

**AT3, AT3-R, AT3-7R**




**AT2, AT2-R, AT2-7R**



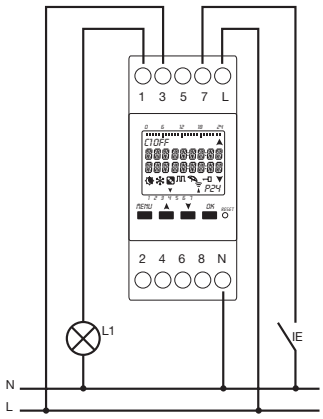

**ATP, ATP-R, ATP-7R**



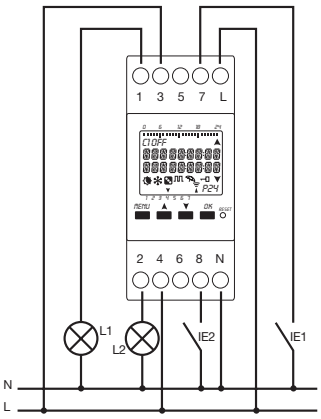
# Quick product references
## Control and automation wiring diagrams

### D Line

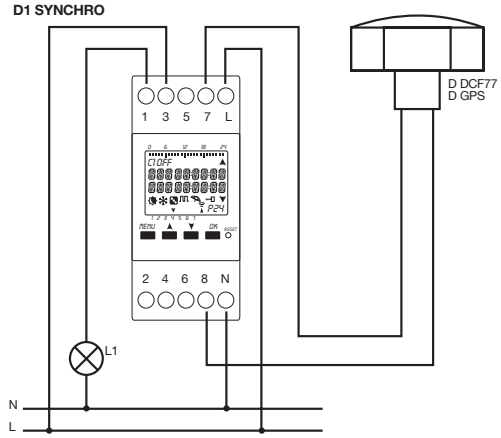
**D1 and D1 PLUS**



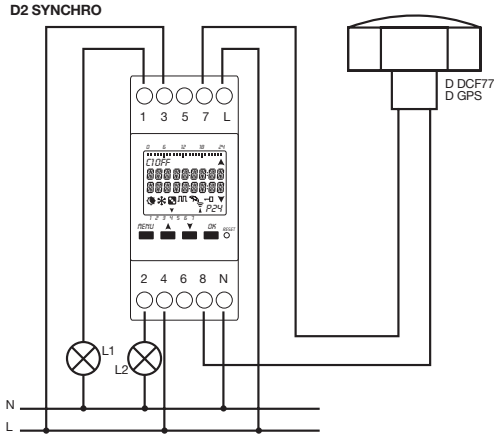

**D2 and D2 PLUS**



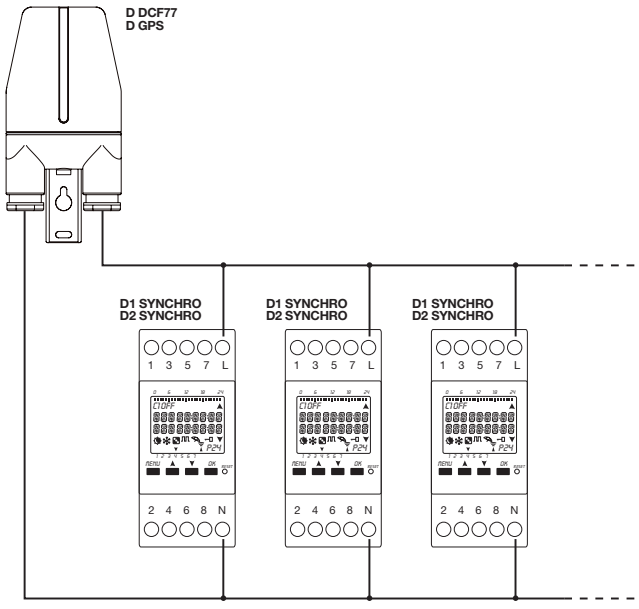

**D1 SYNCHRO**




**D2 SYNCHRO**



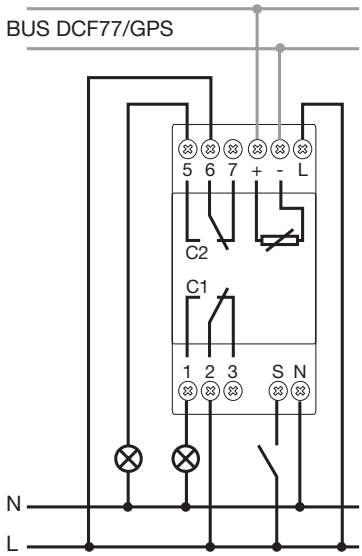

### DCF77 and GPS antenna wirings



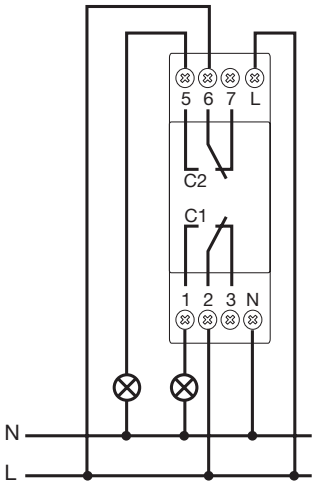

The D DCF77 or D GPS antenna allows you to control up to 10 instruments. The polarity of the first instrument is regardless, while the others have to respect the polarity of the first one.

## D 365

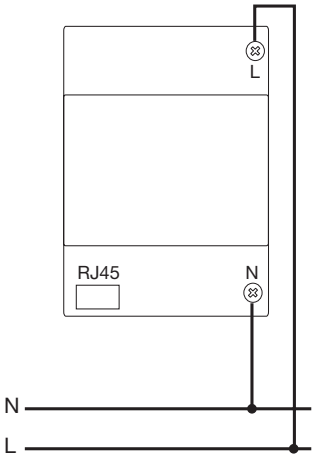
### D 365



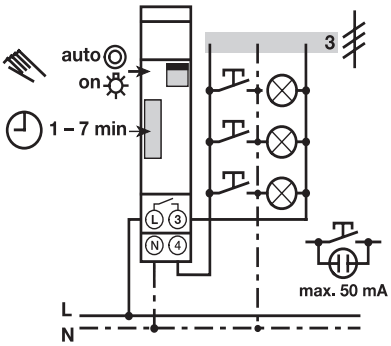

### D 365 CE



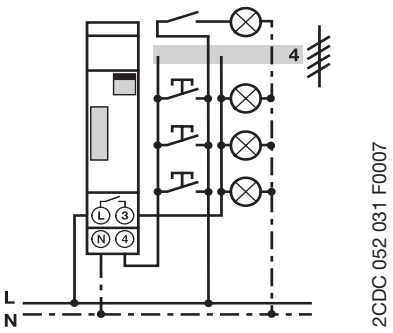

### D 365 LAN




## E 232

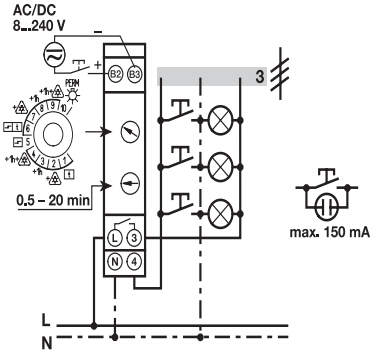



**E 232-230 3 conductor**

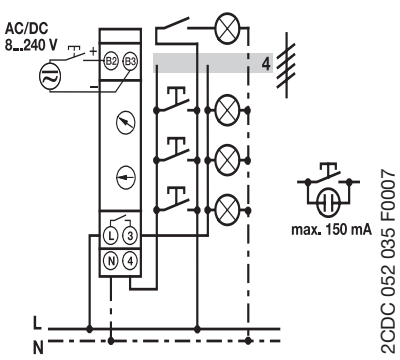



2CDC 052 031 F0007

**E 232-230 4 conductor**




**E 232E-8/230 Multi 10 3 conductor**

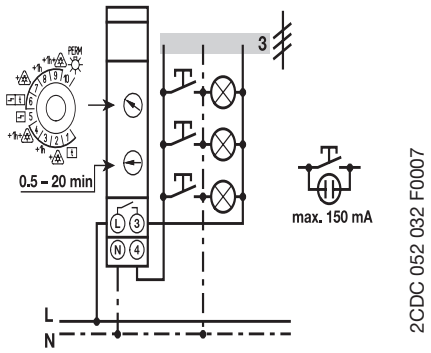



2CDC 052 035 F0007

**E 232E-8/230 Multi 10 4 conductor**

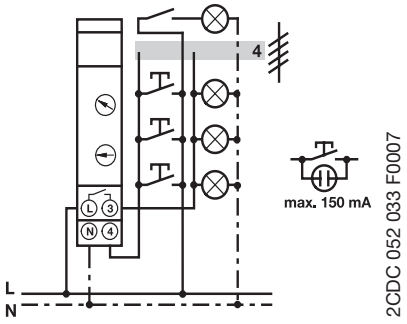
# Quick product references
## Control and automation wiring diagrams

E 232



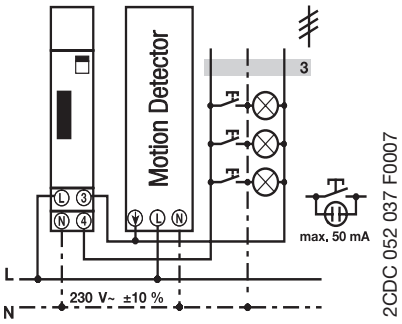

2CDC 052 032 F0007

**E 232E-230 Multi 10 3 conductor**



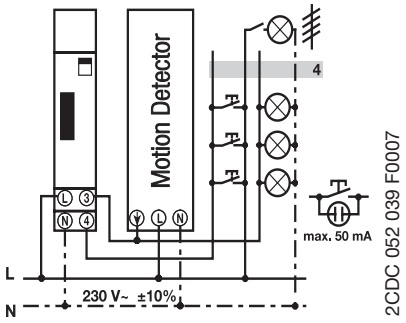

2CDC 052 033 F0007

**E 232E-230 Multi 10 4 conductor**




2CDC 052 037 F0007

**E 232E-8/230 Multi 10 3 conductor**
**E 232E 8/230 3 conductor**
**E 232E 230 Multi 10 3 conductor**
**E 232E 230 N 3 conductor**
**E 232-230 3 conductor**

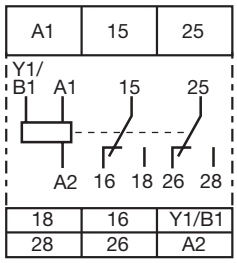



2CDC 052 039 F0007

**E 232E-8/230 Multi 10 4 conductor**
**E 232E 8/230 4 conductor**
**E 232E 230 Multi 10 4 conductor**
**E 232E 230 N 4 conductor**
**E 232-230 4 conductor**

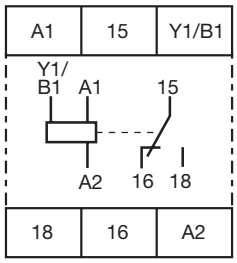
E 234

### CT-MFD.21



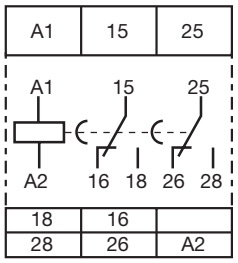

2CDC 252 113 F0b06

### CT-MFD.12



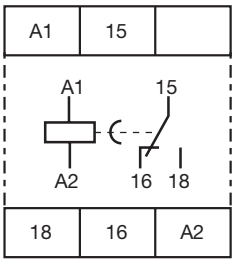

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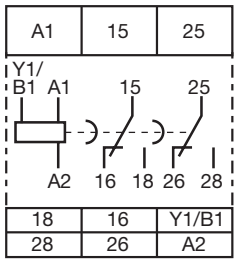

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### CT-ERD.12



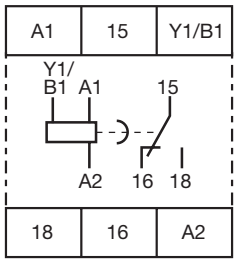

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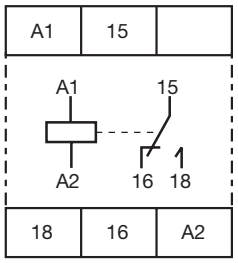

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### CT-AHD.12



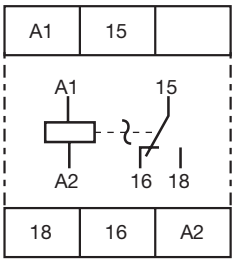

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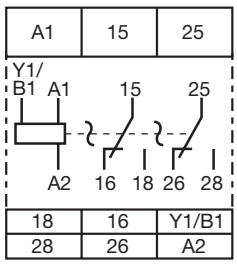

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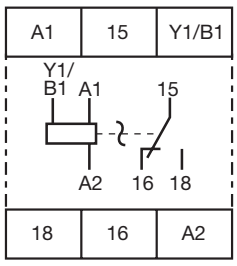

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### CT-TGD.22



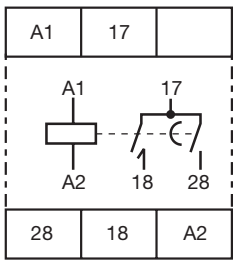

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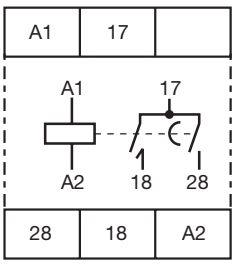

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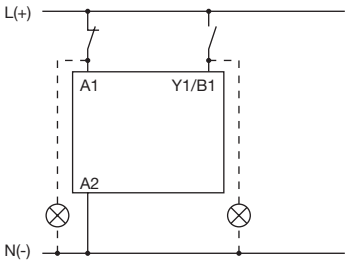

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E 234



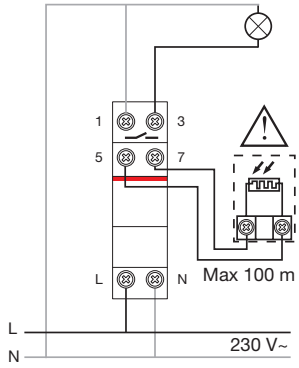

2CDC 252 102 F0b06

Wiring notes for devices with control input
A parallel load to the control input is possible

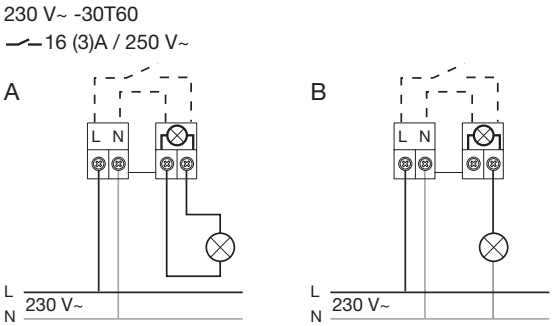
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# Quick product references
## Control and automation wiring diagrams

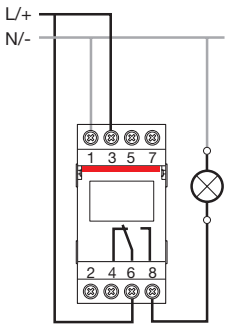
### T1, T1 PLUS



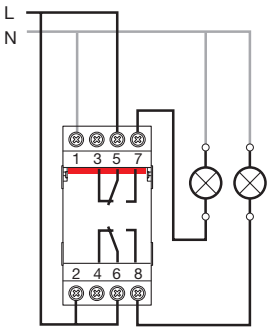

### T1 POLE




### TWA-1

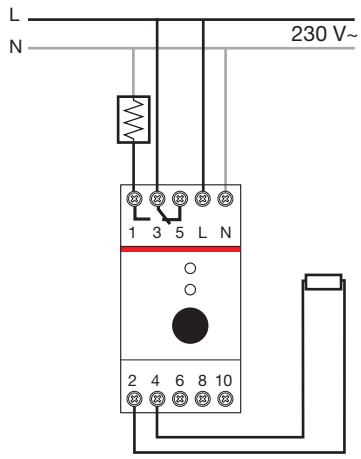



### TWA-2

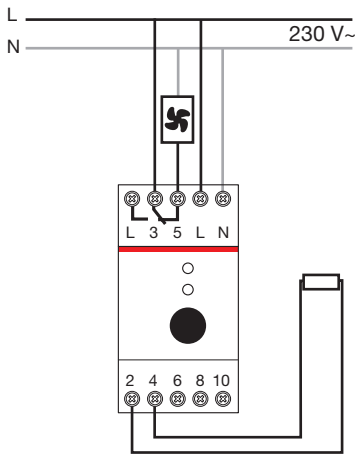


## THS-C, THS-W

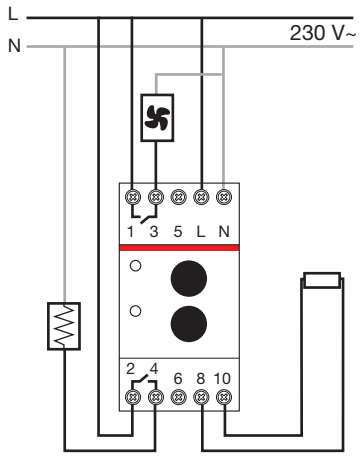
### Heating




### Cooling

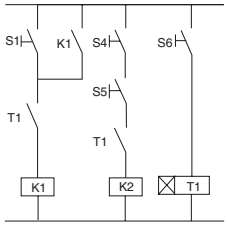



## THS-S

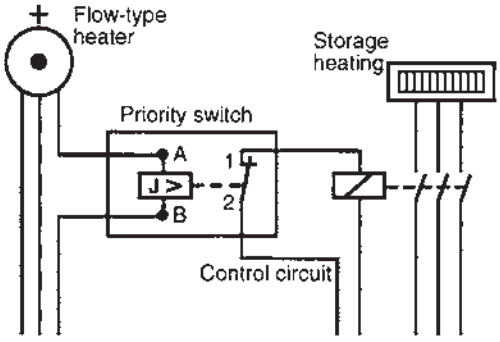



## CL

### Logic links instead of wiring

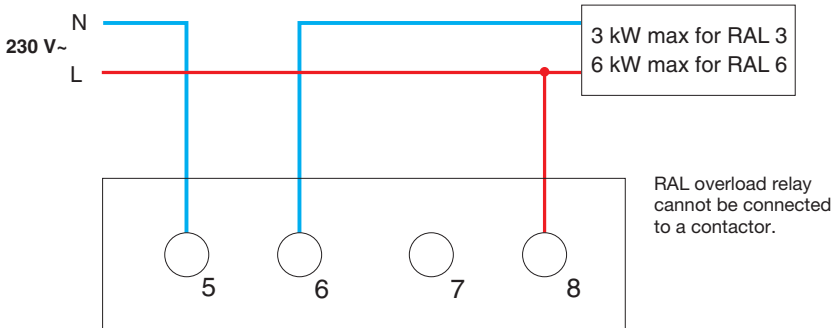



## E 450

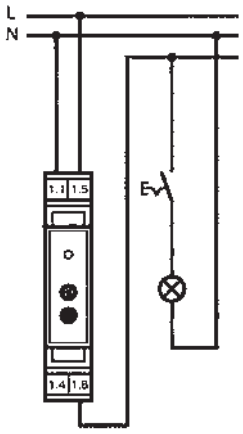


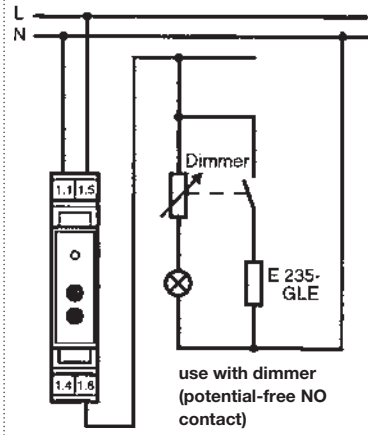
# Quick product references
## Control and automation wiring diagrams

### RAL




### E 235



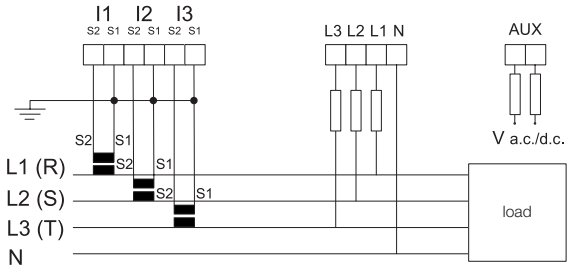




**use with dimmer (potential-free NO contact)**

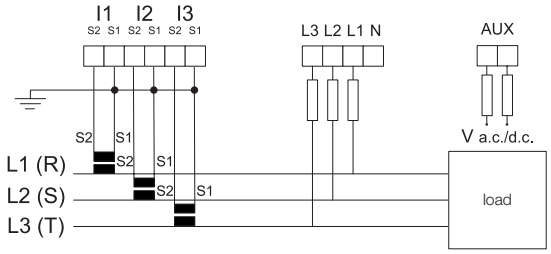
# Quick product references
## Energy efficiency wiring diagrams

### M2M measurement input and auxiliary power supply connections

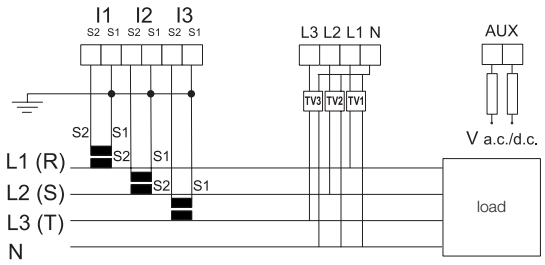
Three-phase + neutral with 3 CT



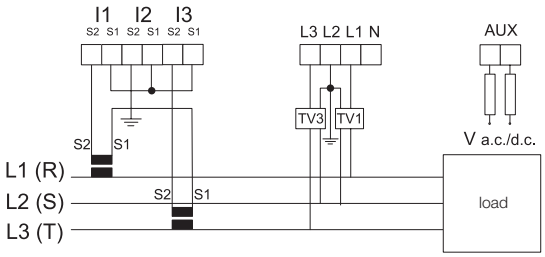

Three-phase with 3 CT




Three-phase + neutral with 3 CT and 3 VT

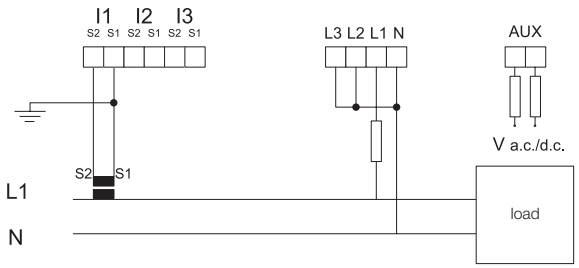



ARON Three-phase with 2 CT and 2 VT

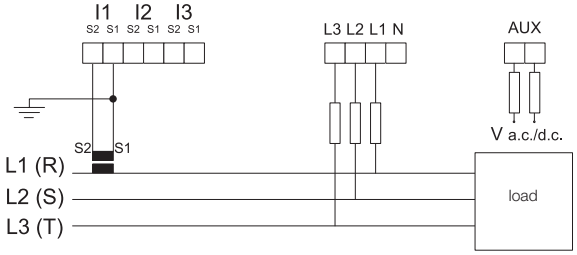



Not suitable for the M2M LV and M2M LV MODBUS models.

Single-phase with 1 CT



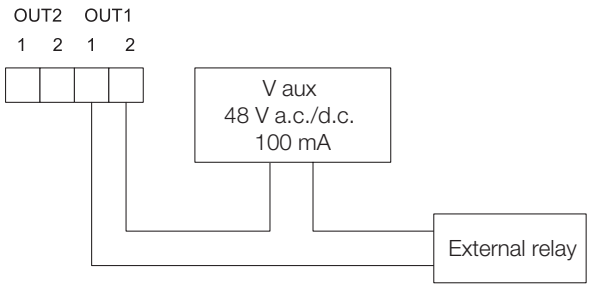

Balanced three-phase with 1 CT



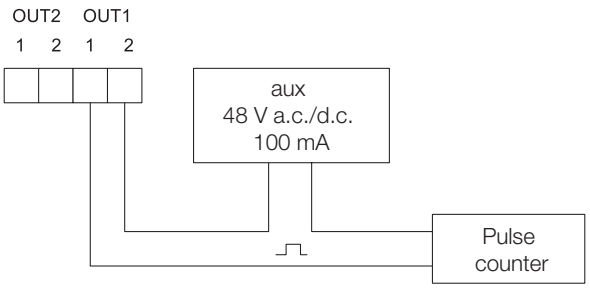
# Quick product references
## Energy efficiency wiring diagrams

### M2M Analogue and digital output connections, digital inputs

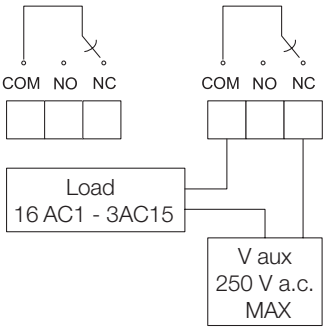
Digital outputs as alarms with external relay for control of loads



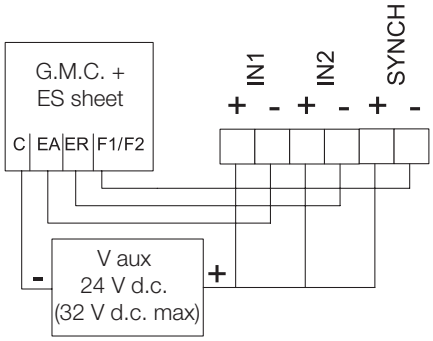

Digital outputs as pulses



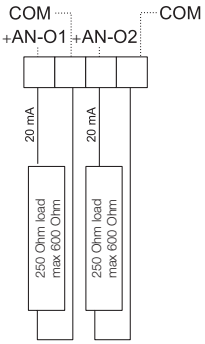

M2M ALARM electromechanical relay outputs




M2M I/O digital inputs (example in NPN mode)

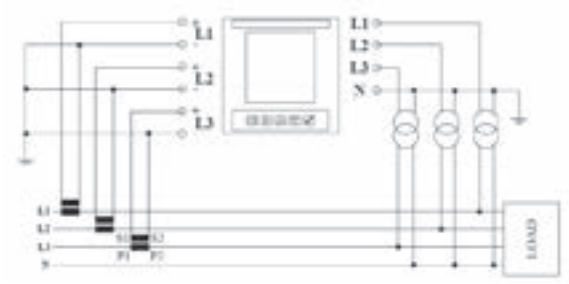



M2M I/O analogue outputs



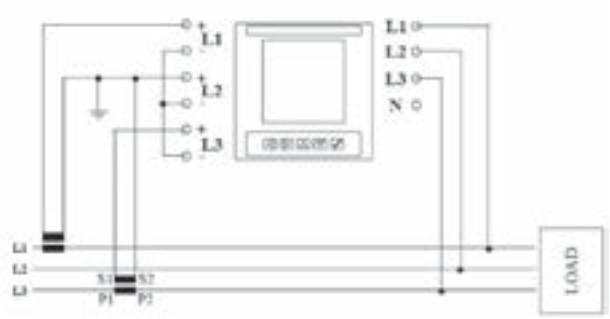
## ANR

4 wires insertion

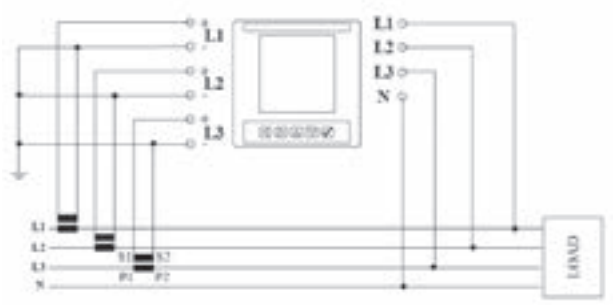



Insertion with 3 CTs and 3 VTs

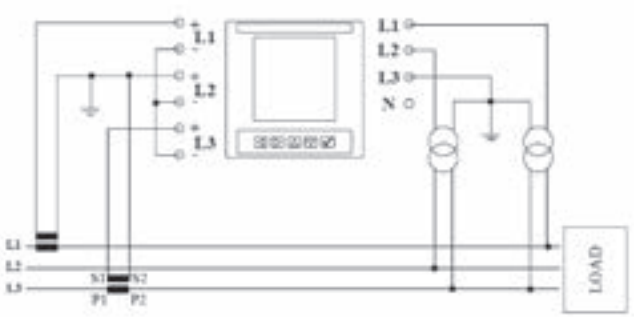
3 wires insertion



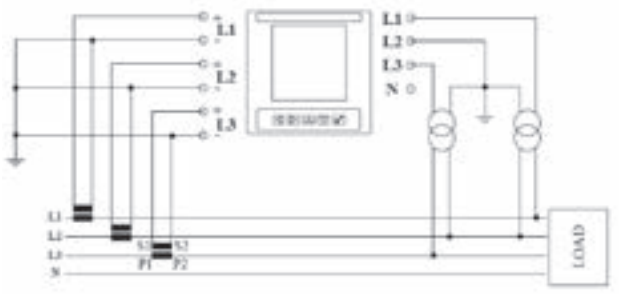

Insertion with 2 CTs



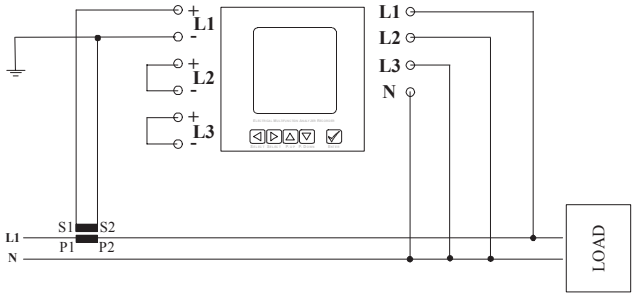

Insertion with 3 CTs




Insertion with 2 CTs and 2 VTs (Aron)




Insertion with 3 CTS and 2 VTs

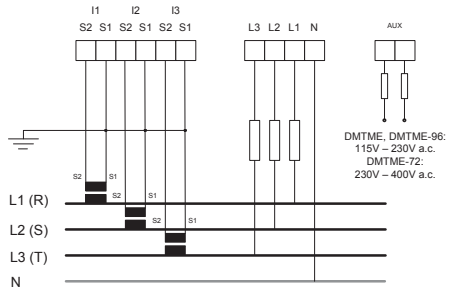



Single phase insertion with 1CT

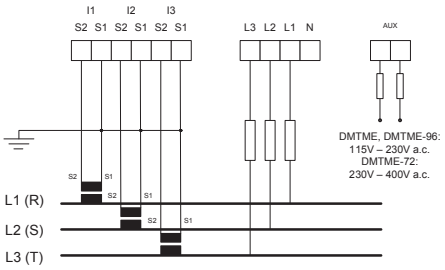
# Quick product references
## Energy efficiency wiring diagrams

### DMTME

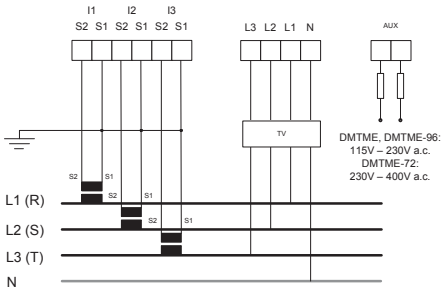
#### Three-phase with neutral and 3 CTs



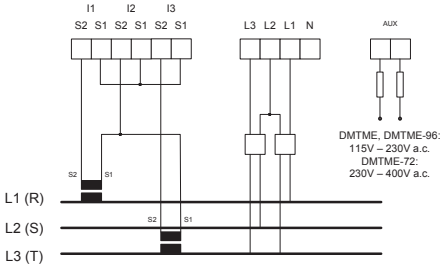

#### Three-phase with 3 CTs



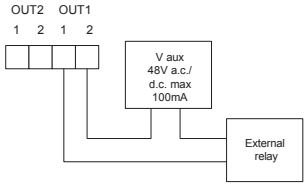

#### Three-phase with neutral and 3 CTs and 3 VTs
Up to 500 V phase-neutral a direct connection is possible



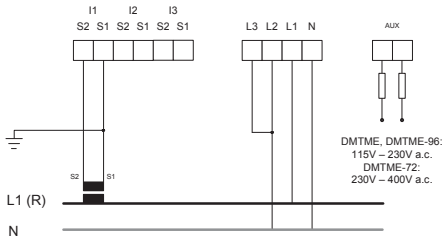

#### Aron type three-phase with 2 CTs and 2 VTs
With symmetric and unbalanced network, 3 CTs and up to 800 V, beyond this value must use VT.



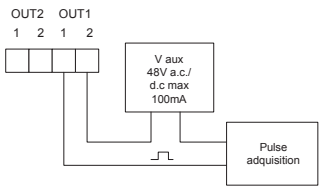

#### Digital output used as alarm with external relays for load command




#### Single phase with neutral and 1 CTs

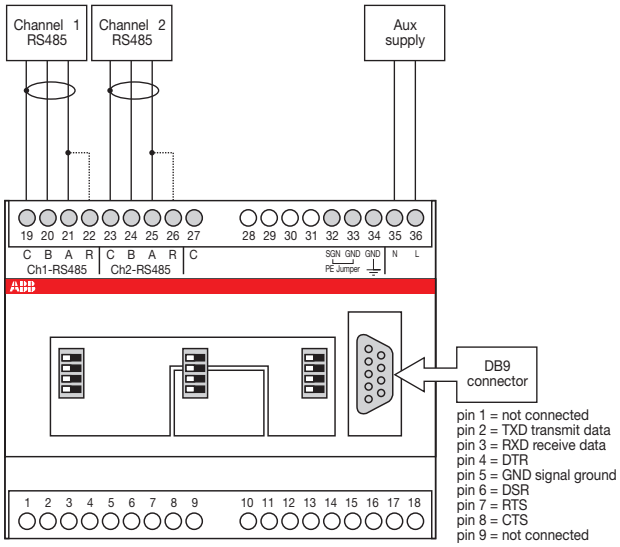



#### Digital output used as pulses

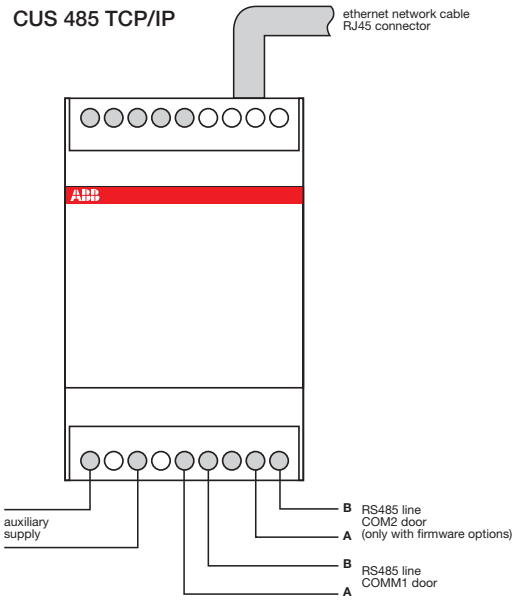


## CUS

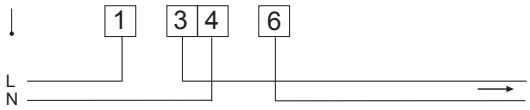
### CUS RS485/232



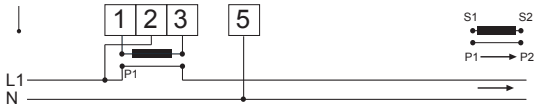

### CUS 485 TCP/IP




## A series A41

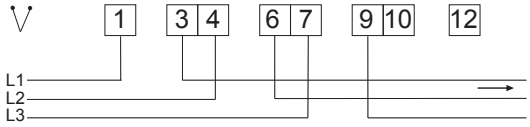



## A series A42

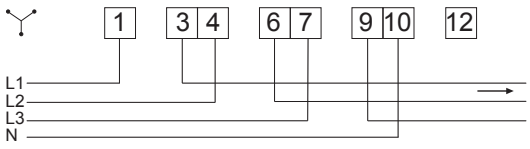



## A series A43

3 wire connection, 2 elements



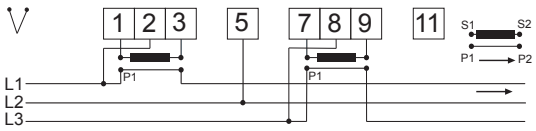

4 wire connection, 3 elements



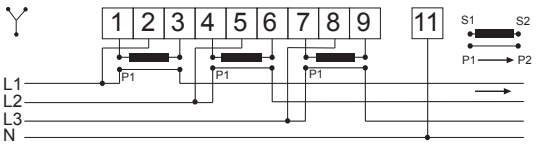
# Quick product references
## Energy efficiency wiring diagrams

### A series A44

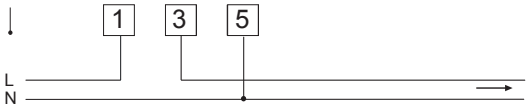
3 wire connection, 2 elements




4 wire connection, 3 elements

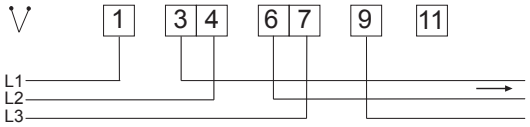



### B series B21

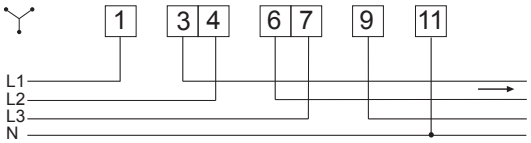



### B series B23

3 wire connection, 2 elements

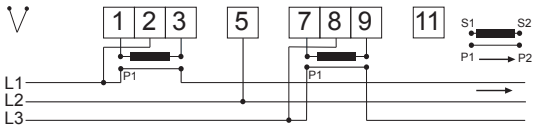



4 wire connection, 3 elements

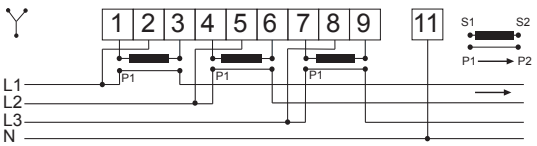



### B series B24

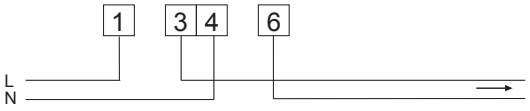
3 wire connection, 2 elements



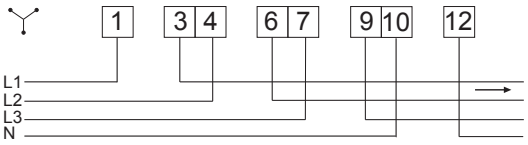

4 wire connection, 3 elements




### C series C11

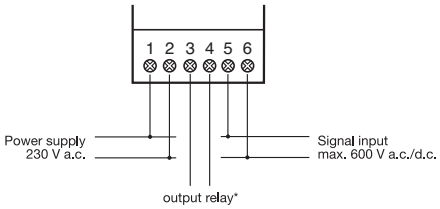



### C series C13

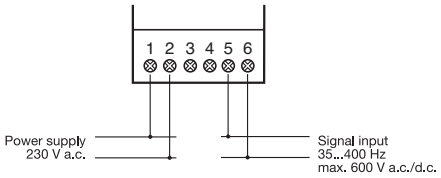


## Digital instruments

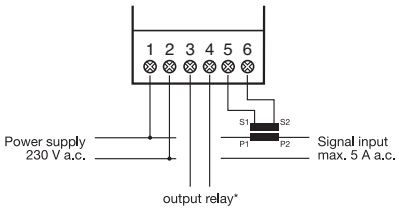
### VLMD-1-2 and VLMD-1-2-R
### VLMD P and VLMD-R P



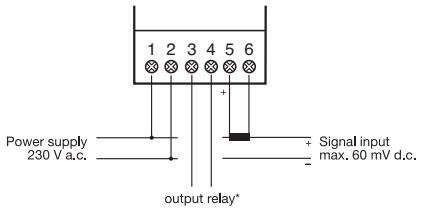

### FRZ-DIG




### AMTD-1 and AMTD-1-R
### AMTD-1 P and AMTD-1-R P

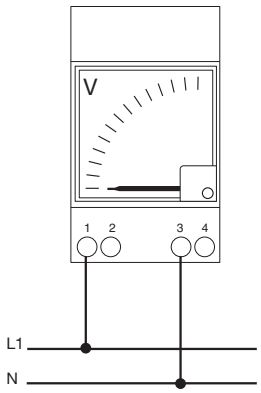


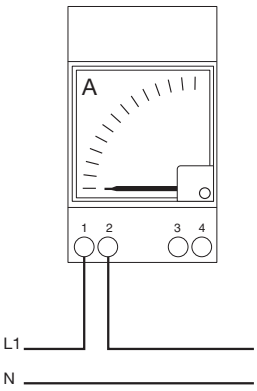

### AMTD-2 and AMTD-2-R
### AMTD-2 P and AMTD-2-R P



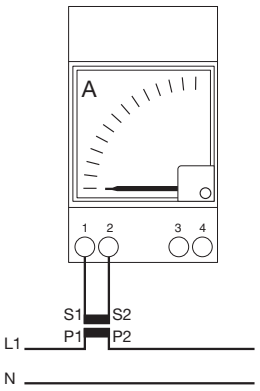

*Only for instruments with output relay

## Analogue instruments

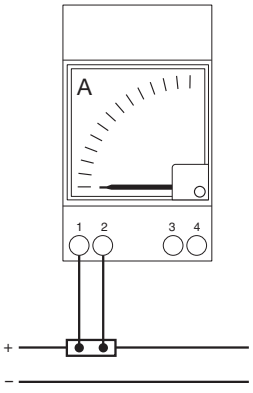



Direct insertion




Indirect insertion using C.T.



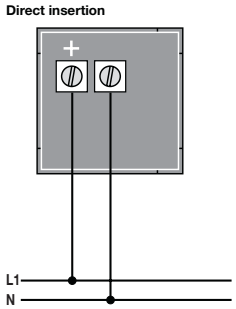

Indirect insertion using shunt

# Quick product references
# Energy efficiency wiring diagrams

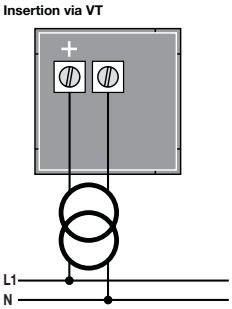
## Front panel analogue instruments

### Voltmeter for alternating current

**Direct insertion**

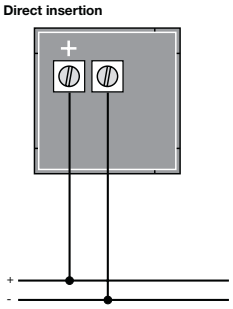



**Insertion via VT**



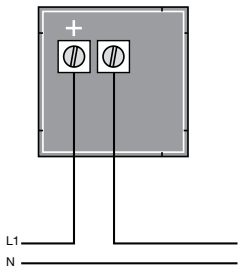

### Voltmeter for direct current

**Direct insertion**

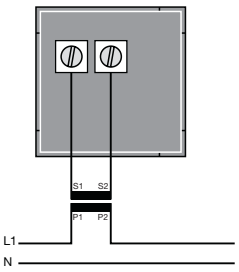



### Ammeter for alternating current

**Direct insertion**

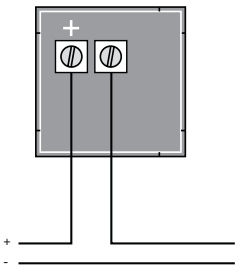



**Insertion via CT**

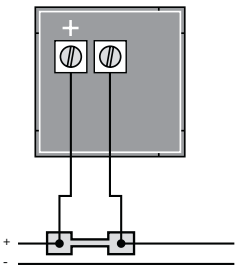



### Ammeter for direct current

**Direct insertion**

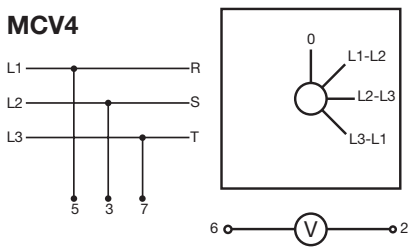



**Insertion with Shunt**

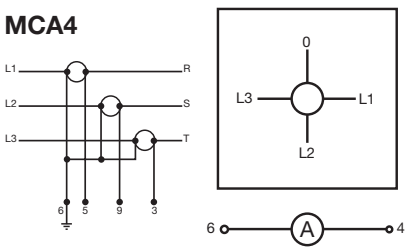



## MCV, MCA, QCV and QCA

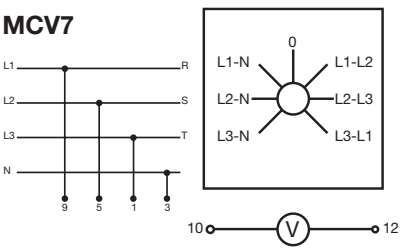
### MCV4



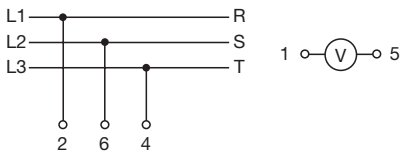

### MCA4



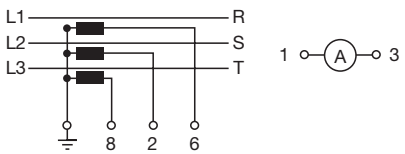

### MCV7



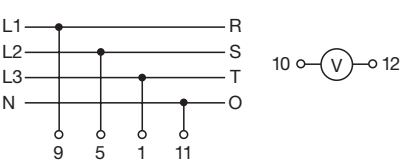

### QCV-4



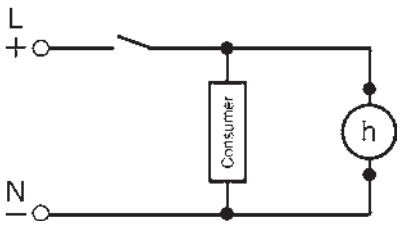

### QCA-4




### QCV-7



## E 233



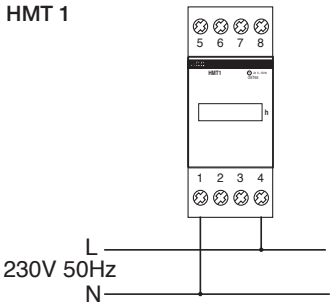

**elapsed-time meter**



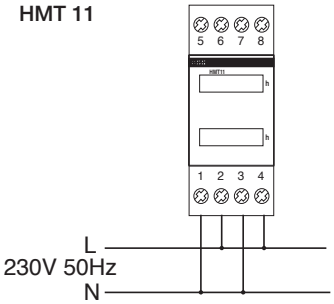

**E 233-15/48 DC**

## HMT

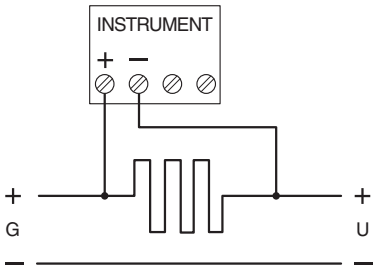
**HMT 1**




**HMT 11**

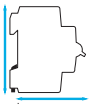



## SNT



# Quick product references
## Overall dimensions

| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| **Miniature circuit breakers** | | | | | | |
| S 201 | 1 | 17.5 | 44 | - | 69 | 88 |
| S 201 Na | 2 | 35 | | | | |
| S 202 | 2 | 35 | | | | |
| S 203 | 3 | 52.5 | | | | |
| S 203 Na | 4 | 70 | | | | |
| S 204 | 4 | 70 | | | | |
| S 200 with bottom aux. cont. | See drawings | | | | | |
| S 201 S | 1 | 17.5 | 44 | - | 69 | 89 |
| S 203 S | 3 | 52.5 | | | | |
| S 201 U | 1 | 17.5 | 44 | - | 71 | 92 |
| S 202 U | 2 | 35 | | | | |
| S 203 U | 3 | 52.5 | | | | |
| S 204 U | 4 | 70 | | | | |
| S 201 UDC | 1 | 17.5 | 44 | - | 71 | 92 |
| S 202 UDC | 2 | 35 | | | | |
| S 203 UDC | 3 | 52.5 | | | | |
| S 204 UDC | 4 | 70 | | | | |
| SU 201 M | 1 | 17.5 | 49.5 | - | 69 | 111 |
| SU 202 M | 2 | 35 | | | | |
| SU 203 M | 3 | 52.5 | | | | |
| SU 204 M | 4 | 70 | | | | |
| SN 201 | 1 | 17.6 | 43.5 | 58 | 68.9 | 91.8 |
| S 201 80-100A | 1 | 17.5 | 44 | 58 | 69 | 88.8 |
| S 202 80-100A | 2 | 35 | | | | |
| S 203 80-100A | 3 | 52.5 | | | | |
| S 204 80-100A | 4 | 70 | | | | |
| S 291 | 1.5 | 26.25 | 43.5 | 65 | 68 | 90 |
| S 292 | 3 | 52.5 | | | | |
| S 293 | 4.5 | 78.75 | | | | |
| S 294 | 6 | 105 | | | | |
| S 700 | See drawings | | | | | |
| S750DR | See drawings | | | | | |
| S 801 | 1.5 | 26.5 | 52 | 82.5 | 88.5 | 95 |
| S 802 | 3 | 53 | | | | |
| S 803 | 4.5 | 79.5 | | | | |
| S 804 | 6 | 106 | | | | |
| S 801_-R | 1.5 | 26.5 | 52 | 82.5 | 88.5 | 142 |
| S 802_-R | 3 | 53 | | | | |
| S 803_-R | 4.5 | 79.5 | | | | |
| S 804_-R | 6 | 106 | | | | |

| Modular products |  Width | |  Depth | |  Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| S 501 | 1.5 | 25 | 56.5 | 80 | 92 | 91 |
| S 502 | 3 | 50 | | | | |
| S 503 | 4.5 | 75 | | | | |
| S 504 | 6 | 100 | | | | |
| **Residual current devices** | | | | | | |
| F 202 | 2 | 35 | 44 | - | 69 | 88 |
| F 204 | 4 | 70 | | | | |
| F 202 B | 2 | 35 | 44 | - | 69 | 85 |
| F 204 B | 4 | 70 | | | | |
| F 204 B high ratings | 4 | 72 | 44 | 60 | 69.5 | 85 |
| F 204 125 A | 2 | 72 | 44 | 60 | 69.5 | - |
| F 204 PV B | 2 | | | | | |
| DDA 200 | See drawings | | | | | |
| DS 202 up to 40 A | 4 | 70 | 44 | - | 69 | 93 |
| DS 203 up to 40 A | 5 | 87.5 | | | | |
| DS 204 up to 40 A | 6 | 105 | | | | |
| DS 202 50, 63 A | 4 | 70 | 44 | - | 69 | 93 |
| DS 203 50, 63 A | 7 | 122.5 | | | | |
| DS 204 50, 63 A | 8 | 140 | | | | |
| DS201 | 2 | 35 | 43 | 58 | 69 | 85 |
| DS202C | | | | | | |
| DS203NC | 4 | 70.4 | - | - | 69 | 85 |
| DS 271 | See drawings | | | | | |
| DDA 800 | See drawings | | | | | |
| RD2 | 2 | 35 | 44 | 58 | - | 85 |
| RD3 | 3.5 | 58.2 | 44.2 | 57.9 | 57.9 | 85 |
| ELR | See drawings | | | | | |
| Toroidal transformers | See drawings | | | | | |
| **Auxiliary elements and accessories** | | | | | | |
| S 2C-A_ | 1 | 17.5 | 44 | - | 69 | 85 |
| S 2C-H11L | 0.5 | 8.8 | | | | |
| S 2C-H20L | | | | | | |
| S 2C-H02L | | | | | | |
| S 2C-S/H 6R | | | | | | |
| S 2C-H 6R | | | | | | |
| S 2C-UA_ | 1 | 17.4 | 44 | - | 74 | 85 |
| F 2C-A_ | | | | | | |
| S 2C-OVP | | | | | | |
| F 2C 125A-SH/S2C-Nt | 0.5 | 8.8 | 44 | - | 70 | 88 |
| Bottom fixing aux. cont. | See drawings | | | | | |
| S 2C-EST | See drawings | | | | | |
| S 2C-BP | 1 | 17.5 | 44 | - | 68 | 85 |

# Quick product references
## Overall dimensions

| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| S 2C-CM | See drawings | | | | | |
| F 2C-ARI | See drawings | | | | | |
| F 2C-CM | See drawings | | | | | |
| F 2C-ARH | See drawings | | | | | |
| F 2C-ARH-T | See drawings | | | | | |
| Aux. elements for SN201 | See drawings | | | | | |
| Aux. elements for S280 and S290 | 0.5 | 8.75 | 44 | - | 73 | 90 |
| | 1 | 17.5 | | | | |
| S800-AUX | See drawings | | | | | |
| S800-RSU-H | See drawings | | | | | |
| S800-RD+S800-RHE | See drawings | | | | | |
| Terminal covers | See drawings | | | | | |
| Enclosures | See drawings | | | | | |
| Flush frame | See drawings | | | | | |
| Busbars | See drawings | | | | | |
| Me flange | See drawings | | | | | |
| OH_2A_ | See drawings | | | | | |
| **Protection and safety** | | | | | | |
| Type 1 SPD 1 pole | 1/2 | 17.8/35 | 45.5 | 58 | - | 85 |
| Type 1 SPD 2 poles | 4 | 70.4 | 43.5 | | | |
| Type 1 SPD 2 poles + TS | 5 | 88 | | | | |
| Type 1 SPD 3 poles | 6 | 105 | | | | |
| Type 1 SPD 3 poles + TS | 7 | 122.5 | | | | |
| Type 1 SPD 4 poles | 8 | 140 | | | | |
| Type 1 SPD 4 poles + TS | 9 | 157.5 | | | | |
| Type 1+2 SPD 1 pole | 1/2 | 17.8/35 | | | | |
| E90 20/32 1 pole | 1 | 17.5 | - | - | 64 | 85 |
| E90 20/32 1 pole + N | 2 | 35 | | | | |
| E90 20/32 2 poles | 2 | 35 | | | | |
| E90 20/32 3 poles | 3 | 52.5 | | | | |
| E90 20/32 3 poles + N | 4 | 70 | | | | |
| E90 20/32 4 poles | 4 | 70 | | | | |
| E90 50 1 pole | See drawings | | | | | |
| E90 50 1 pole + N | | | | | | |
| E90 50 2 poles | | | | | | |
| E90 50 3 poles | | | | | | |
| E90 50 3 poles + N | | | | | | |
| E90 125 1 pole | See drawings | | | | | |
| E90 125 1 pole + N | | | | | | |
| E90 125 2 poles | | | | | | |
| E90 125 3 poles | | | | | | |
| E90 125 3 poles + N | | | | | | |

| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| E90 30 Class J 1 pole | See drawings | | | | | |
| E90 30 Class J 2 poles | | | | | | |
| E90 30 Class J 3 poles | | | | | | |
| E90 60 Class J 1 pole | See drawings | | | | | |
| E90 60 Class J 2 poles | | | | | | |
| E90 60 Class J 3 poles | | | | | | |
| ILTS-E 1 pole | 1.5 | 27 | 44 | 70 | 70 | 90 |
| ILTS-E 2 poles | 3 | 54 | | | | |
| ILTS-E 3 poles | 4.5 | 81 | | | | |
| ILTS-E 4 poles | 6 | 108 | | | | |
| SQZ3 | 3 | 52.5 | 44 | 58 | 58 | 85 |
| RH/RL | 3 | 52.5 | 44 | 58 | 58 | 85 |
| E 236 US1 | 2 | 35 | 44 | 60 | 65 | 87 |
| E 236 US2 | | | | | | |
| E 236 US1.1 | 1 | 17.5 | 44 | 60 | 60 | 87 |
| E 236 US2.1 | | | | | | |
| E 236 US1.1D | | | | | | |
| Isoltester-DIG | 6 | 105 | 44 | 56 | 61 | 90 |
| PM554 | See drawings | | | | | |
| CP415 | See drawings | | | | | |
| Selvtester-24 | 3 | 52.5 | 44 | 58 | 58 | 85.5 |
| QSD | See drawings | | | | | |
| TI | See drawings | | | | | |
| QSO | See drawings | | | | | |
| ISL-A 115 | 6 | 105 | 44 | 58 | 65 | 90 |
| ISL-A 230 | | | | | | |
| ISL-A 600 | | | | | | |
| ISL-C 600 | | | | | | |
| ISL-A 24-28 | 3 | 52.5 | 44 | 58 | 65 | 85.5 |
| ISL-C 230 | | | | | | |
| ISL-C 440 | | | | | | |
| ISL-MOT 1000 | | | | | | |
| QIT | See drawings | | | | | |

# Quick product references
## Overall dimensions

| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| **Command and signalling** | | | | | | |
| E201 | 1 | 17.5 | 44 | 58 | 70 | 85 |
| E202 | 2 | 35 | | | | |
| E203 | 3 | 52.5 | | | | |
| E204 | 4 | 70 | | | | |
| E463 | 2.5 | 44 | 44 | 58 | 70 | 85 |
| E210 | 0.5 | 9 | 43.5 | 58 | 67.9 | 85 |
| E210 | 1 | 18 | | | | |
| ESB 20 | 1 | 17.5 | 44 | 58 | 58 | 85 |
| ESB 24 | 2 | 35 | | | | |
| ESB 40 | 3 | 54 | | | | |
| ESB 63 | | | | | | |
| EN 20 | 1 | 17.5 | 44 | 58 | 58 | 85 |
| EN 24 | 2 | 35 | | | | |
| EN 40 | 3 | 54 | | | | |
| EN 63 | | | | | | |
| E290 | See drawings | | | | | |
| E 259 16-10 | 1 | 17.5 | 43.5 | 58 | 62 | 85 |
| E 259 16-20 | | | | | | |
| E 259 16-11 | | | | | | |
| E 259 16-19 | | | | | | |
| E 259 16-29 | | | | | | |
| E 259 16-30 | 2 | 35.6 | 43.5 | 58 | 62 | 85 |
| E 259 16-40 | | | | | | |
| E 259 16-39 | | | | | | |
| E 259 16-49 | | | | | | |
| E257-C003 | 2 | 35.6 | 43.5 | 58 | 62 | 85 |
| E257-C30 | | | | | | |
| E257-C20 | 1.5 | 26.7 | 43.5 | 58 | 62 | 85 |
| E257-C002 | | | | | | |
| E251 | 1 | 17.5 | 43.5 | 58 | 62 | 85 |
| E252 | | | | | | |
| E256 | | | | | | |
| E256.1 | | | | | | |
| E256.2 | | | | | | |
| E257-C10 | | | | | | |
| E250 CM | | | | | | |
| E250 CP | | | | | | |
| E250 GM | | | | | | |
| E257-CM | 0.5 | 8.9 | 43.5 | 58 | 62 | 85 |
| E250-H | | | | | | |
| FLR | See drawings | | | | | |

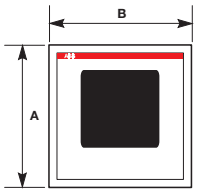
| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| E261 | 1 | 17.5 | 43.4 | 58 | 58 | 85 |
| E261C | | | | | | |
| E262 | | | | | | |
| E266 | | | | | | |
| E262C | | | | | | |
| E266C | | | | | | |
| STD | See drawings | | | | | |
| E 234 1 concact | 1 | 17.5 | 43.4 | 58 | 58 | 70 |
| E 234 2 contacts | | | | | | 80 |
| TS 25 C | 4 | 70 | 44 | 58 | 58 | 85 |
| TS 40 C | 4 | 70 | | | | |
| TS 63 C | 5 | 87.5 | | | | |
| TM10 | 2 | 35 | 44 | 58 | 58 | 85 |
| TM15 | | | | | | |
| TS8...16 | | | | | | |
| TM30 | 3 | 52.5 | | | | |
| TM40 | | | | | | |
| TS24 | | | | | | |
| SM | 1 | 17.5 | 44 | 58 | 58 | 85 |
| RM | | | | | | |
| TSM | 2 | 35 | | | | |
| TSR | | | | | | |
| CP-D 15/0.83 | 1 | 18 | 44 | 58 | 58 | 91 |
| CP-D 24/0.42 | | | | | | |
| CP-D 24/2.5 | 4 | 71 | | | | |
| CP-D 15/2.1 | 3 | 53 | | | | |
| CP-D 24/1.3 | | | | | | |
| CP-D 24/4.2 | 5 | 89.9 | | | | |
| TM-_ | See drawings | | | | | |
| M117_ | 2.5 | 44 | 44 | 60 | 60 | 85 |
| M2071 | | | | | | |
| M1011 | 3 | 53 | | | | |
| M1363 | | | | | | |
| MA1-8001 | See drawings | | | | | |

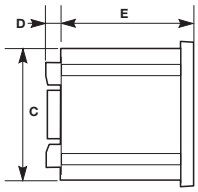
# Quick product references
## Overall dimensions

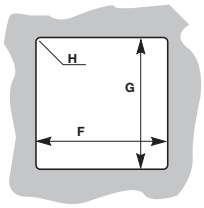
| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| **Control and automation** | | | | | | |
| AT1 | 1 | 17.8 | 44 | 60 | 60 | 88.5 |
| AT1-R | | | | | | |
| AT2 | 2 | 35 | | | | |
| AT2-R | | | | | | |
| AT2-7R | | | | | | |
| AT3 | 3 | 54 | | | | |
| AT-R | | | | | | |
| AT-7R | | | | | | |
| ATP | See drawings | | | | | |
| D | 2 | 35 | 43.8 | 60 | 60 | 90 |
| D 365 | 3 | 52.5 | | | | |
| D 365 LAN | | | | | | |
| D 365 CE | 2 | 35 | | | | |
| D 365 DCF77 | See drawings | | | | | |
| D 365 GPS | See drawings | | | | | |
| E 232-230 | 1 | 17.5 | 44 | 59 | 59 | 88 |
| E 232 E | | | | | 58 | 90 |
| TWA-1 | 2 | 35.8 | 43.8 | 60 | 60 | 85 |
| TWA-2 | | | | | | |
| T1, T1 PLUS | 1 | 17.5 | - | - | 65 | 86 |
| THS_ | 2 | 35 | 44 | 60 | 60 | 90 |
| ATT GSM | 4 | 71 | - | 58 | 58 | 85 |
| CL | See drawings | | | | | |
| E 450 | 1 | 17.5 | - | 60 | 60 | 85 |
| RAL | 2 | 35 | 44 | 58 | 58 | 85 |
| LSS1/2 | 5 | 87.5 | - | 58 | 58 | 85 |
| E 235 | 1 | 17.5 | - | 58 | 58 | 85 |
| LEE | See drawings | | | | | |

| Modular products | Width | | Depth | | Max. dimensions | |
|---|---|---|---|---|---|---|
| | modules | mm | DIN-rail to door | DIN-rail to front | max depth | max heigth |
| **Energy efficiency** | | | | | | |
| Modular analogue measurement instruments | 3 | 52.5 | 44 | 58 | 58 | 85 |
| Modular digital measurement instruments | 3 | 52.2 | 44 | 58 | 58 | 85 |
| MCV, MCA | See drawings | | | | | |
| QCV, QCA | See drawings | | | | | |
| DMTME | 6 | 105 | 44 | 58 | 58 | 90 |
| CUS | 6 | 105 | 44 | 58 | 58 | 90 |
| CUS 485 | 3 | 52.5 | | | | |
| TRF M | 3 | 52.5 | 44 | 58 | 58 | 85.5 |
| TV2 | See drawings | | | | | |
| Shunts | See drawings | | | | | |
| E 233 | 1 | 17.5 | 44 | 58 | 58 | 85 |
| HMT | 2 | 35 | 44 | 58 | 58 | 85 |
| A41 | 4 | 70 | 44 | 65 | 65 | 97 |
| A42 | | | | | | |
| A43 | 7 | 123 | | | | |
| A44 | | | | | | |
| B21 | 2 | 35 | | | | |
| B23 | 4 | 70 | | | | |
| B24 | | | | | | |
| C11 | 1 | 17.5 | | | | 111 |
| C13 | 3 | 54 | | | | 122 |

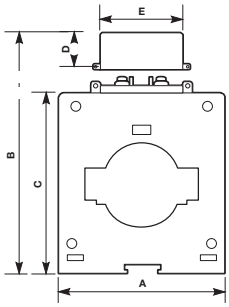
# Quick product references
## Overall dimensions

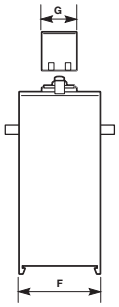


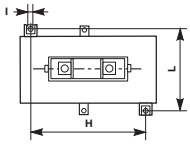




| Product without modular profile | A [mm] | B [mm] | C [mm] | D [mm] | E [mm] | F [mm] | G [mm] | H |
|---|---|---|---|---|---|---|---|---|
| **Front panel devices** | | | | | | | | |
| SL - 48 | 48 | 48 | 44 | 7 | 48 | 45 | 45 | R3 |
| SL - 72 | 144 | 72 | - | 9 | 55 | 67 | 137 | R3 |
| Analogue measurement intruments - 48 | 48 | 48 | 43 | 6 | 53 | 45÷0.1 | 45÷0.1 | R3 |
| Analogue measurement intruments - 72 | 72 | 72 | 67 | 6 | 53 | 68÷0.7 | 68÷0.7 | R3 |
| Analogue measurement intruments - 96 | 96 | 96 | 90 | 6 | 53 | 92÷0.8 | 92÷0.8 | R3 |
| Digital measurement instruments | 36 | 72 | 32 | 6 | 51.5 | 68÷0.8 | 33÷0.8 | R3 |
| M2M | 96 | 96 | 90 | 16 | 61 | 92 | 92 | R3 |
| ANR 96 | 96 | 96 | 90 | 14 | 115 | 92 | 92 | R3 |
| TMD | 96 | 96 | 90 | 14 | 115 | 92 | 92 | R3 |
| DMTME - 96 | 96 | 96 | 90 | 13 | 90 | 92 | 92 | R3 |
| DMTME - 72 | 72 | 72 | - | 10 | 90 | 68 | 68 | R3 |



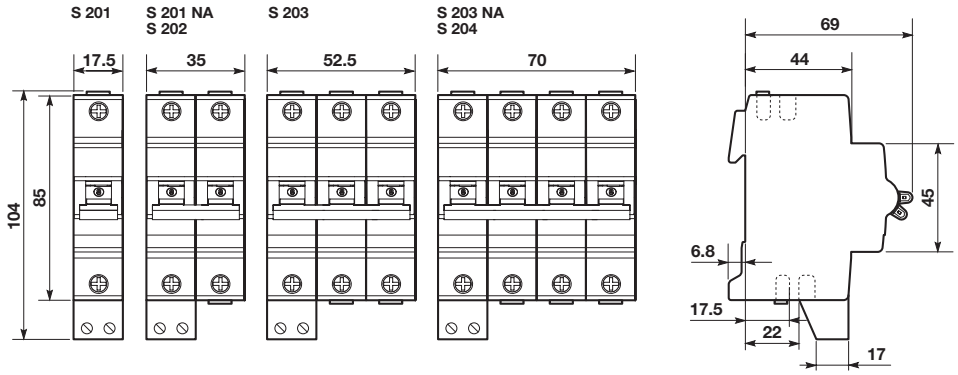




| Product without modular profile | A [mm] | B [mm] | C [mm] | D [mm] | E [mm] | F [mm] | G [mm] | H [mm] | I [mm] | L [mm] |
|---|---|---|---|---|---|---|---|---|---|---|
| **Measurement current transformers** | | | | | | | | | | |
| CT MAX | see drawings | | | | | | | | | |
| CT PRO XT | see drawings | | | | | | | | | |
| CTA | see drawings | | | | | | | | | |
| CT6 | 105 | 121 | 100 | 18.5 | 75 | 61 | 21 | 82 | 3.7 | 76.7 |
| CT8 | 125 | 142 | 120 | 18.5 | 50 | 61.5 | 21 | 82 | 3.7 | 76.7 |
| CT8-V | 109 | 141 | 119 | 18.5 | 50 | 41 | 21 | - | - | - |
| CT12 up to 4000 A | 180 | 196 | 175 | 18.5 | 50 | 68.5 | 21 | 156.8 | 3.7 | 84 |
| CT12 5000 A, CT12 6000 A | 272 | 290 | 265 | 25 | 50 | - | - | - | - | 50 |
| CT12-V | 109 | 186 | 165 | 18.5 | 50 | 41 | 21 | - | - | - |
| CTO | see drawings | | | | | | | | | |

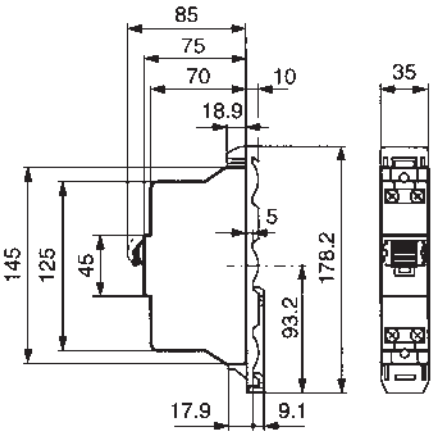
# Quick product references
# Overall dimensions

## S 200 with bottom-fitting auxiliary contact

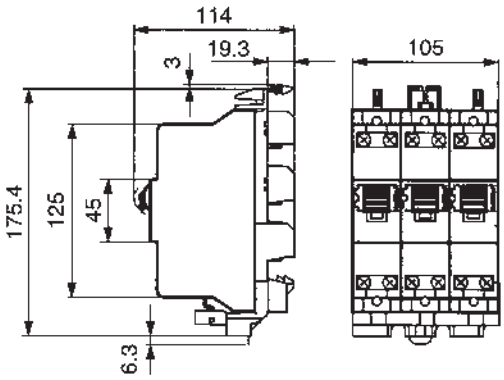



## S 700

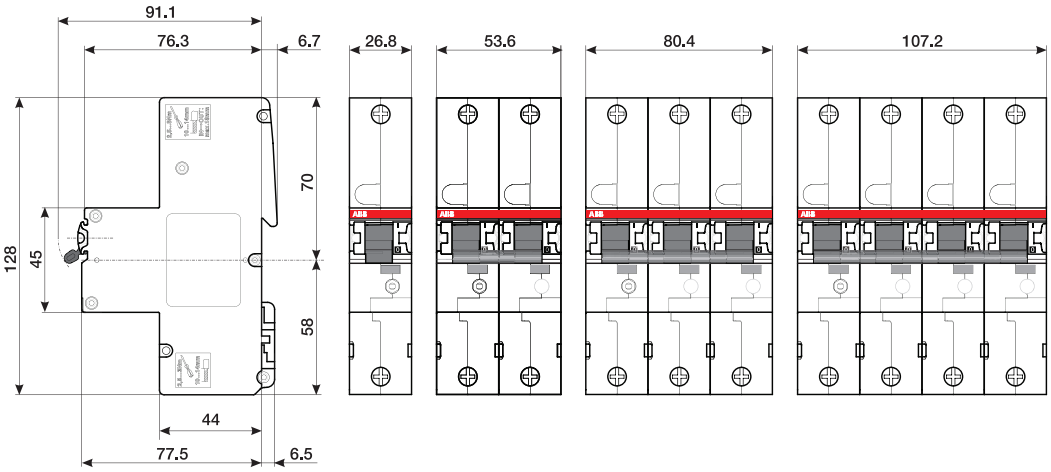
S 701 with DIN rail adapter




3 x S 701 with busbar adapter

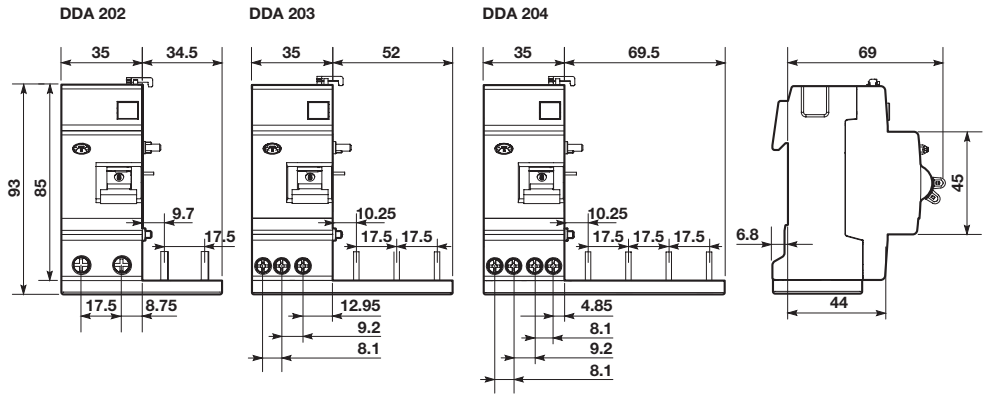



## S 750 DR

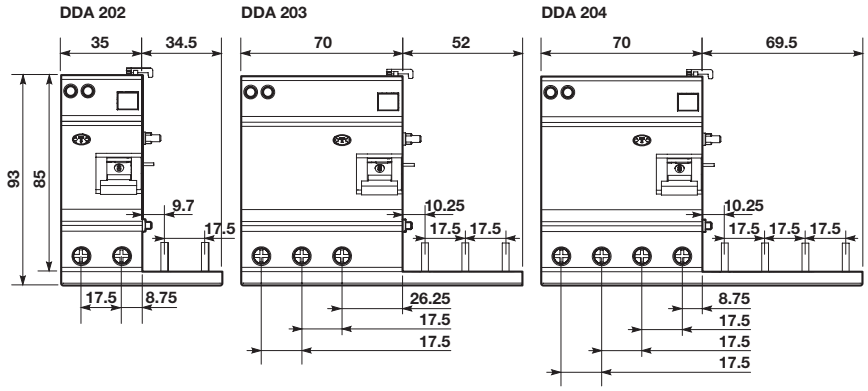


## DDA 200

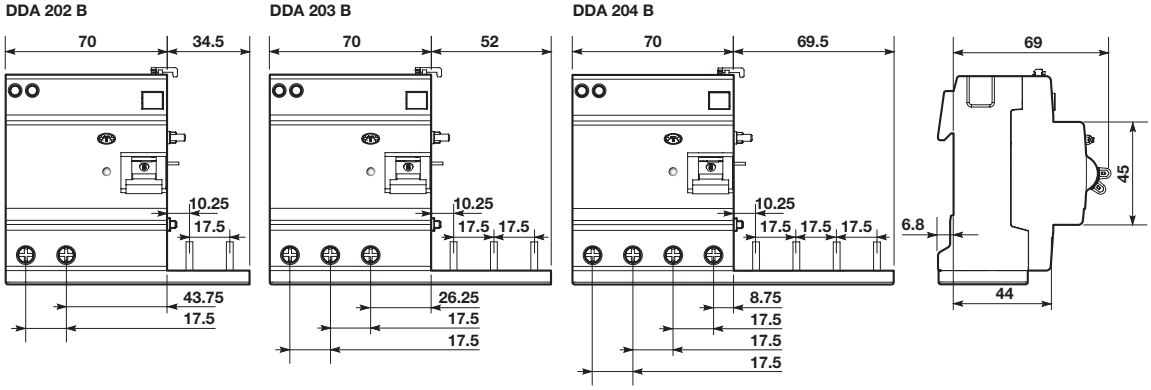
In=25-40 A




In=63 A

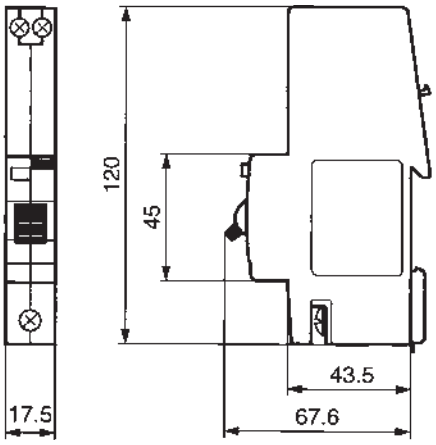



## DDA 200 B

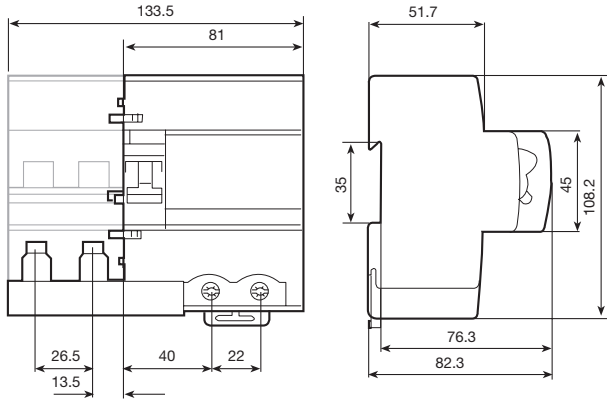


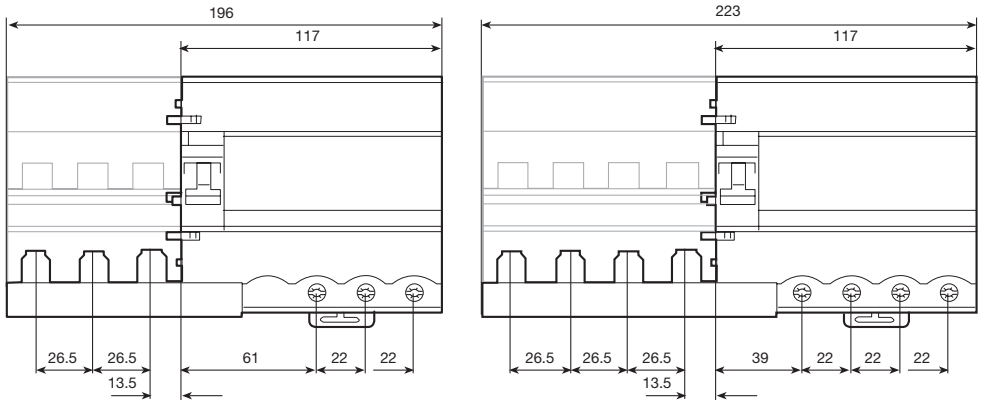
# Quick product references
## Overall dimensions

### DS 271



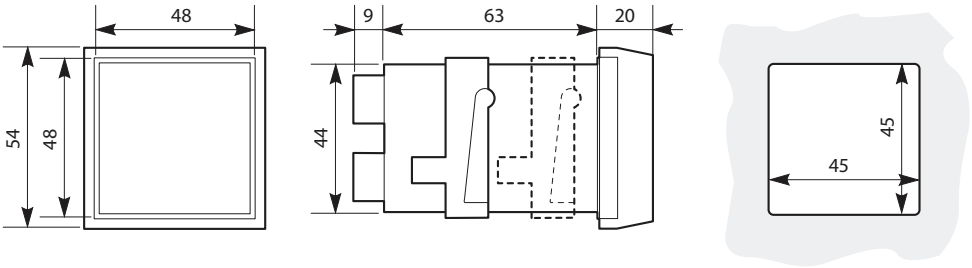

### DDA 800 for S800 and DS800 series



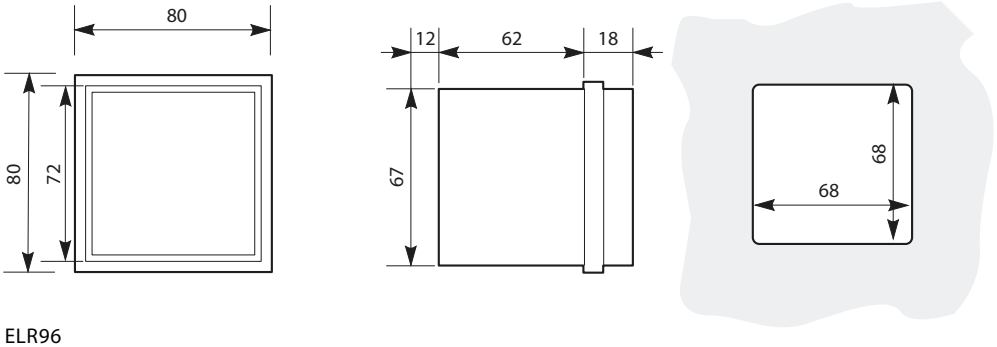



## ELR front panel residual current relays

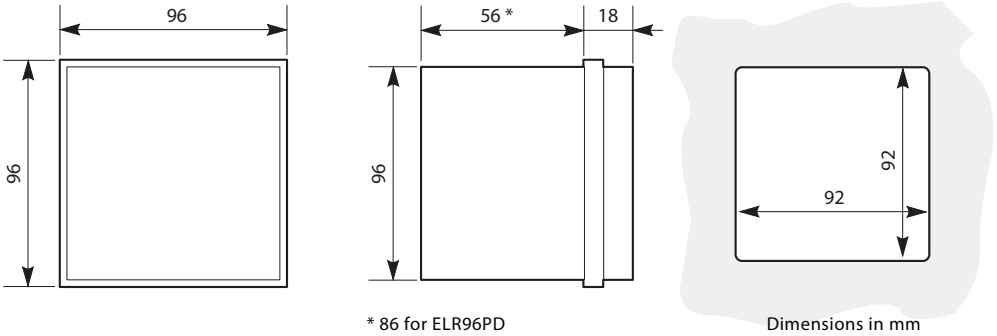
ELR48P




ELR72




ELR96



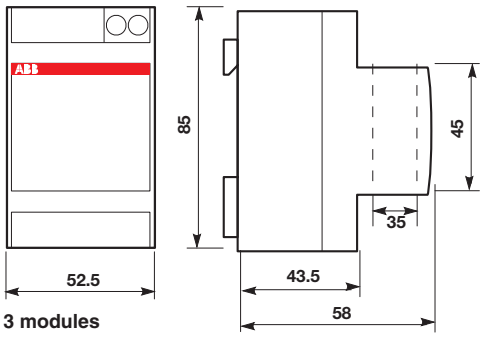

* 86 for ELR96PD

Dimensions in mm

# Quick product references
# Overall dimensions

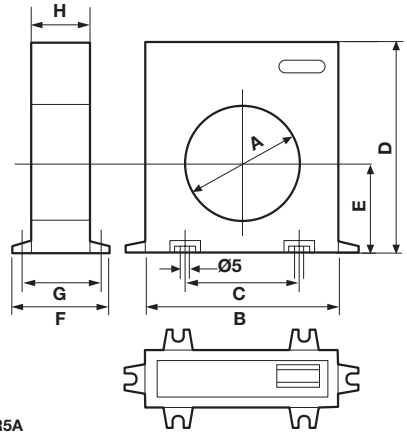
## Toroidal transformers

TRM

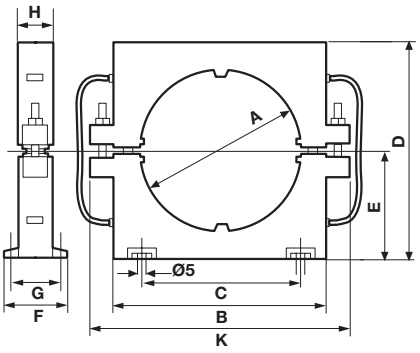



3 modules

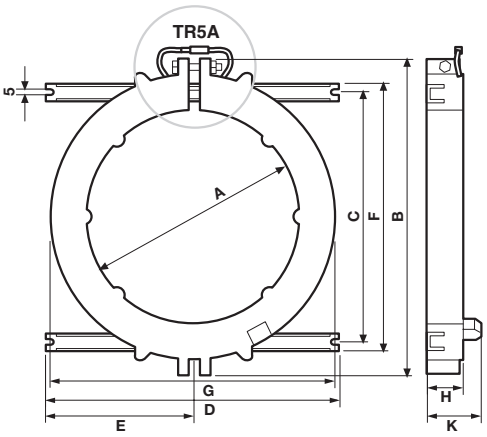
TR1, TR2, TR3, TR4, TR160, TR160A




TR4A

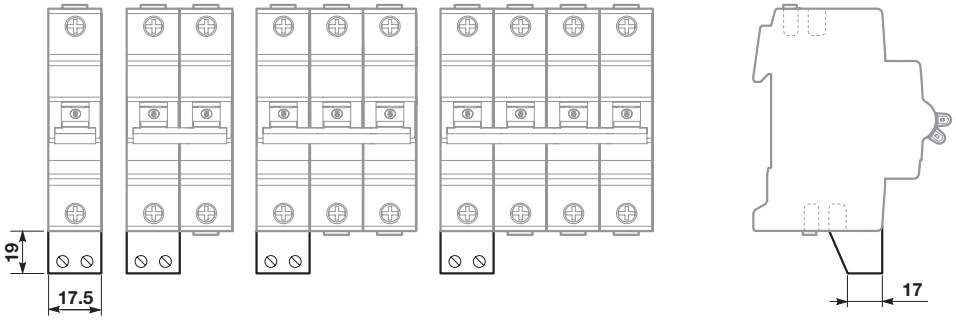



TR5, TR5A

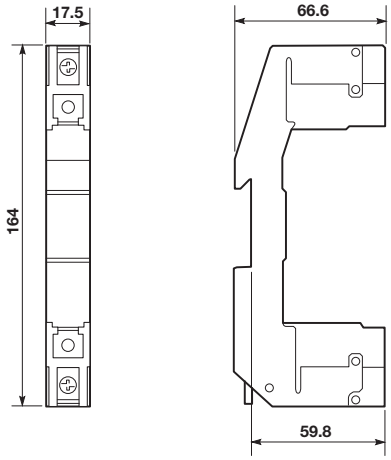



| Type | Dimensions (mm) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | K |
| **TR1** | 35 | 100 | 60 | 110 | 47 | 50 | 43 | 30 | – |
| **TR2** | 60 | 100 | 60 | 110 | 47 | 50 | 43 | 30 | – |
| **TR3** | 80 | 150 | 110 | 160 | 70 | 50 | 43 | 30 | – |
| **TR4** | 110 | 150 | 110 | 160 | 70 | 50 | 43 | 30 | – |
| **TR4A** | 110 | 145 | 110 | 150 | 75 | 45 | 38 | 25 | 180 |
| **TR160** | 160 | 220 | 156 | 236 | 110 | 64 | 50 | 34 | – |
| **TR160A** | 160 | 220 | 156 | 236 | 110 | 64 | 50 | 34 | – |
| **TR5** | 210 | 310 | 240 | 290 | 145 | 260 | 280 | 36 | 55 |
| **TR5A** | 210 | 310 | 240 | 290 | 145 | 260 | 280 | 36 | 55 |

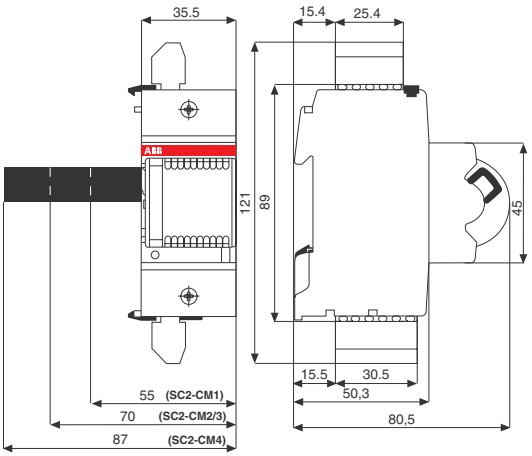
## Bottom-fitting auxiliary contact (with S 200 MCB)




## S 2C-EST

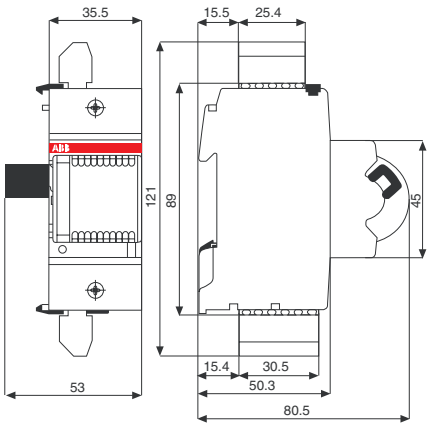



## S 2C-CM

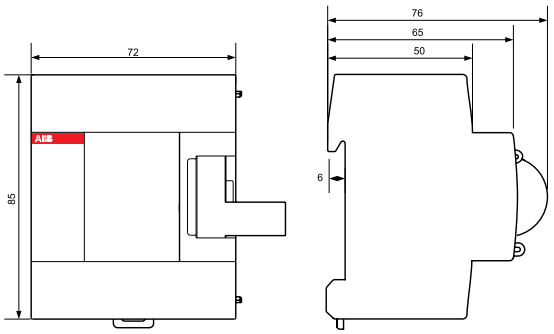


# Quick product references
## Overall dimensions

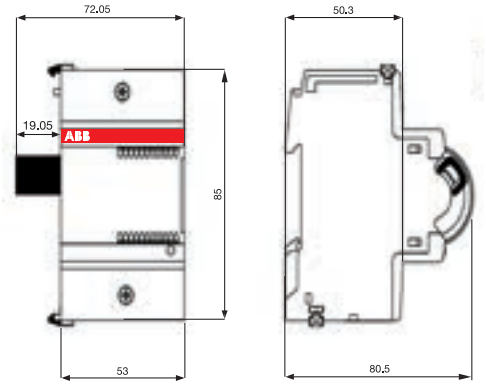
### F2C-ARI, F2C-CM




### F2 CM4

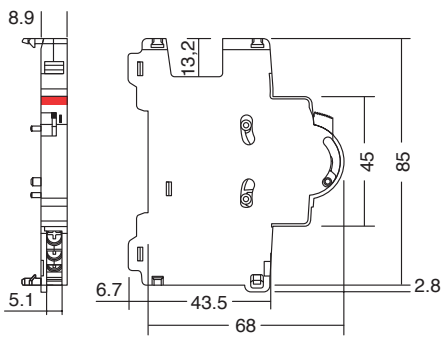



### F2C-ARH, F2C-ARH-T

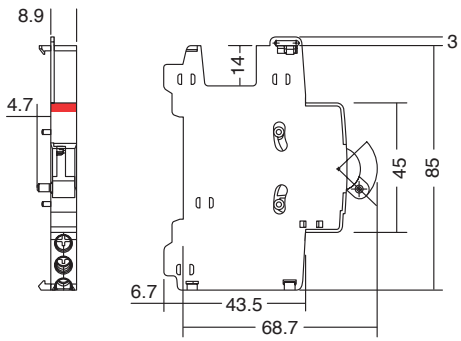



### Auxiliary elements for SN 201 series

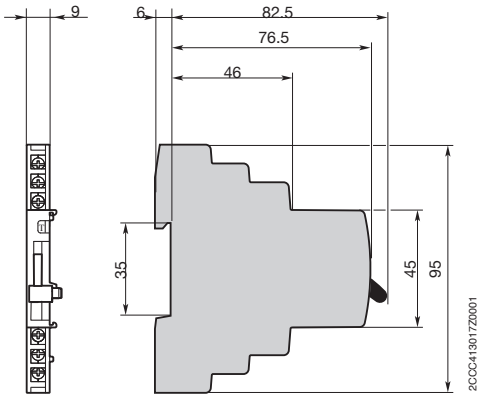
**SN201-S**



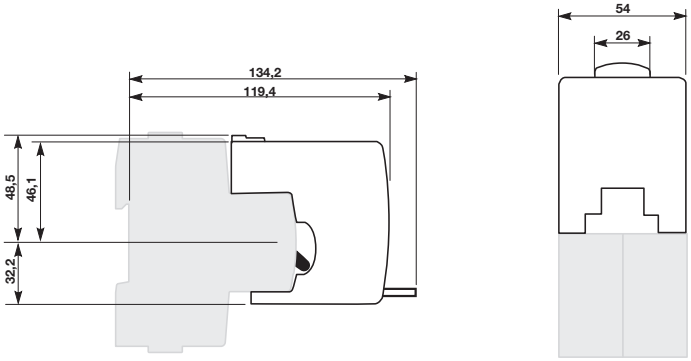

**SN201-IH**



## S800-AUX, S800-AUX/ALT



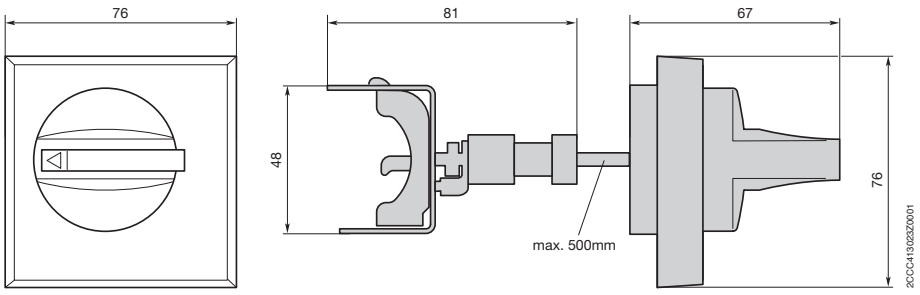

## S800-RSU-H, S500-RSU-H



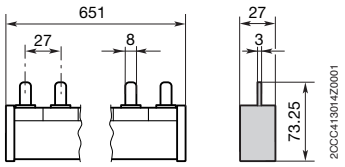
# Quick product references
# Overall dimensions

## S800-RD+S800-RHE, S800-NT, S800-BB250, S800-BBPC120

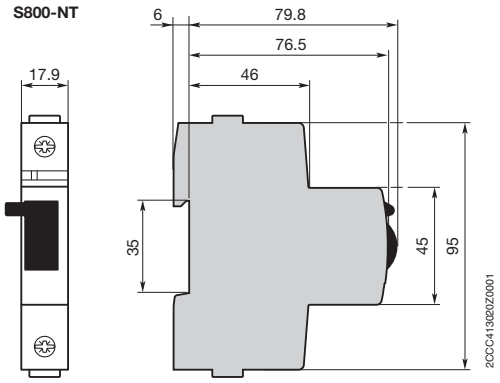
**S800-RD+S800-RHE**



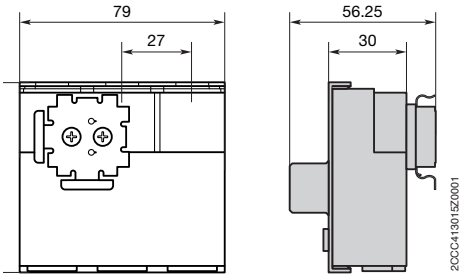

**S800-BB250**




**S800-NT**

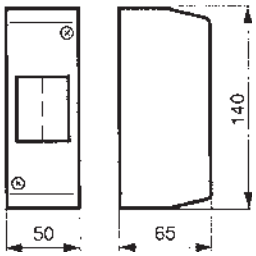



**S800-BBPC120**

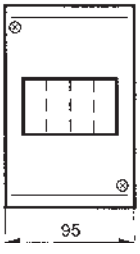



## Terminal covers

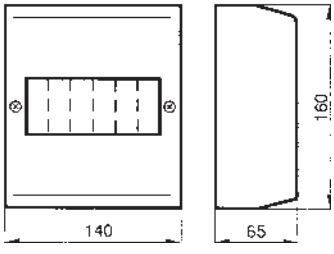
**PCD 2 N**



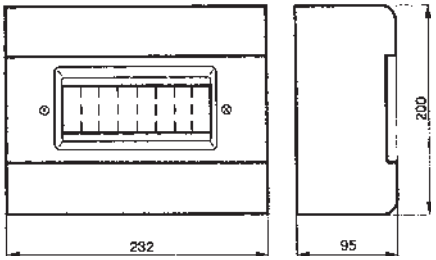

**PCD 4 N**




**PCD 6 N**



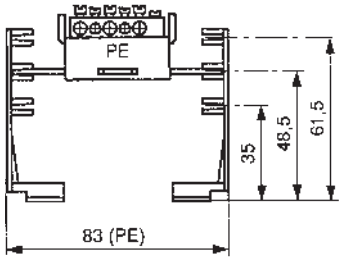

**PCD 8 N**



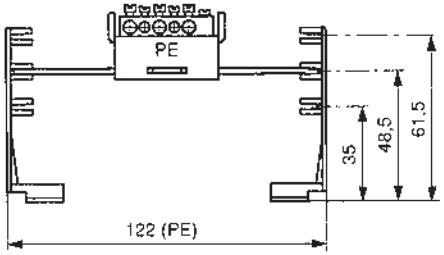
## Enclosures of moulded-plastic

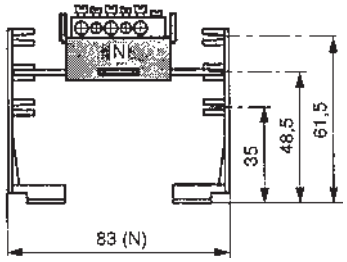
**N + PE common terminals for QES**

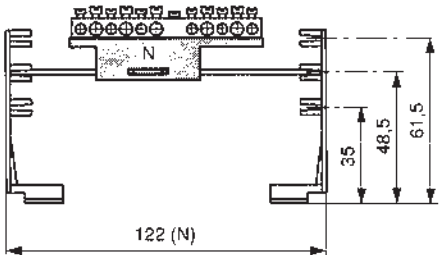
**SMO 4**



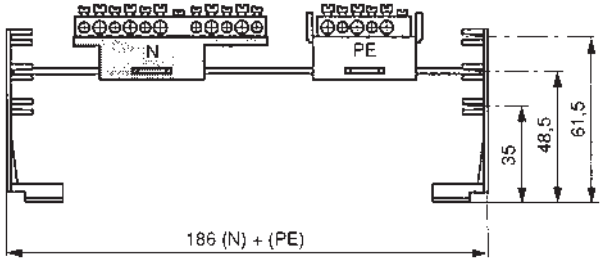

**SMO 6**



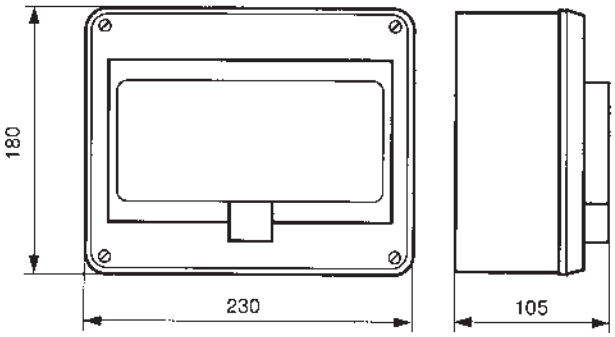




**SMO 10**

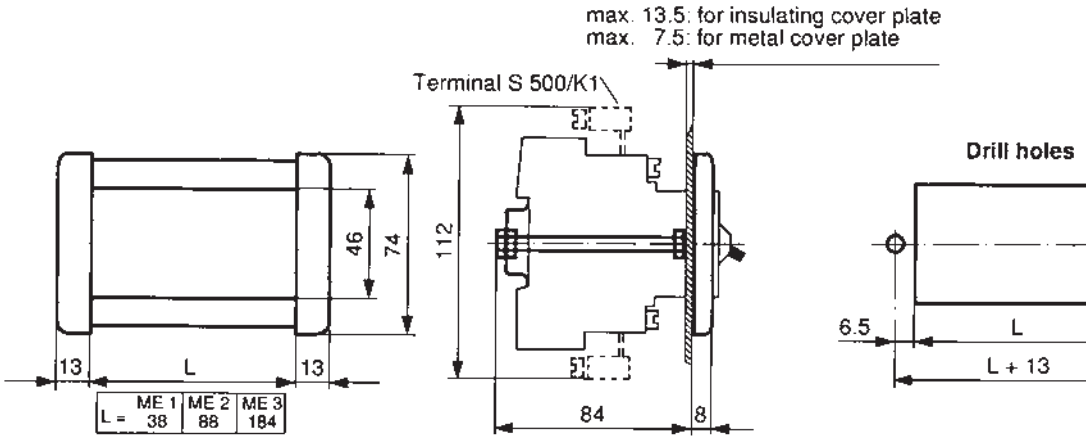



**QES 10/3 N**

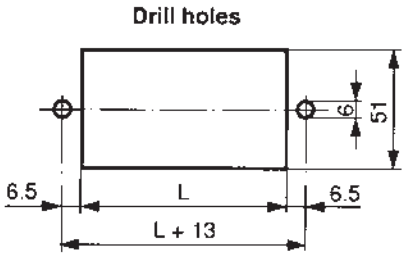


# Quick product references
# Overall dimensions

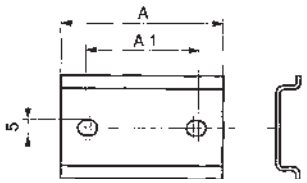
## Flush frame




| Type | Dim. L | Max. No. of modules (1 module=17.5 mm) |
|---|---|---|
| S 500 - ME 1 | 38 mm | for 2 module |
| S 500 - ME 2 | 88 mm | for 5 module |
| S 500 - ME 3 | 184 mm | for 10 module |



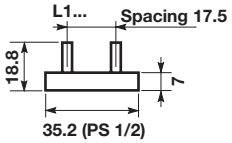

① In the case of DSW 1, the drill holes are vertical



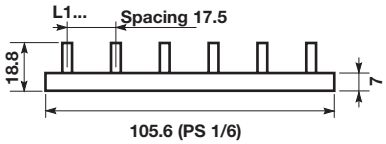

| Name | A | A1 |
|---|---|---|
| DSW | 17.5 | 15 |
| DSW 2 | 35 | 20 |
| DSW 3 | 52.5 | 37.5 |
| DSW 4 | 70 | 55 |
| DSW 6 | 105 | 90 |

## Busbars

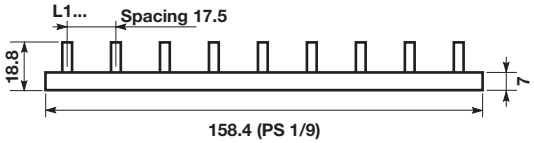
### PS 1/2



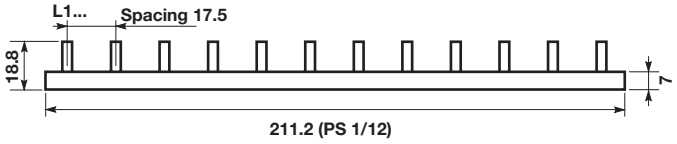

### PS 1/6



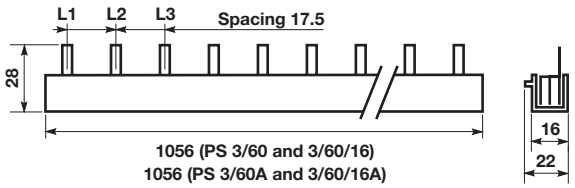

### PS 1/9



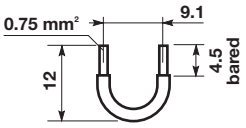

### PS 1/12




### PS 3/60

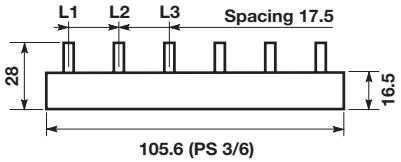



### Auxiliary contact bridge HKB

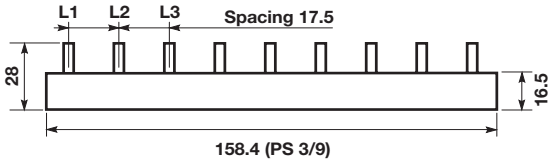


# Quick product references
## Overall dimensions

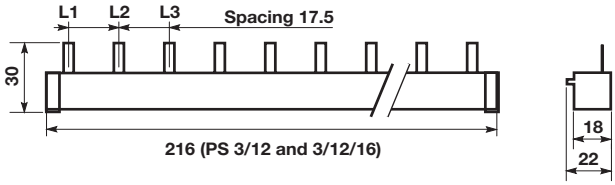
**PS 3/6**



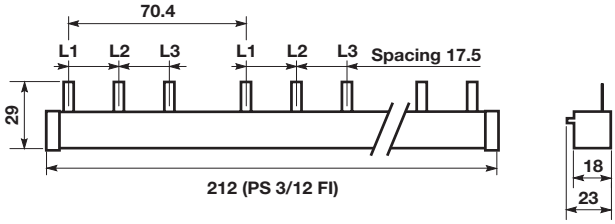

**PS 3/9**



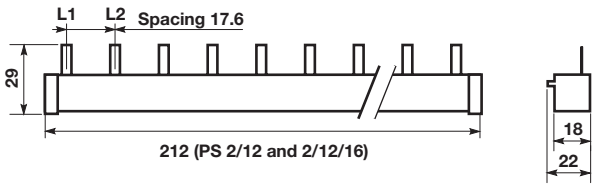

**PS 3/12** (2CDL 230 001 R1012)



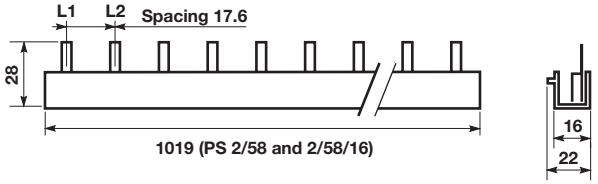

**PS 3/12 FI** (2CDL 230 002 R1012)



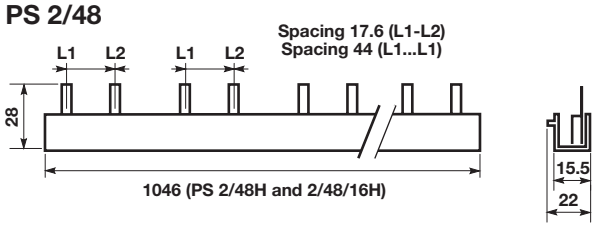
## PS 2/12



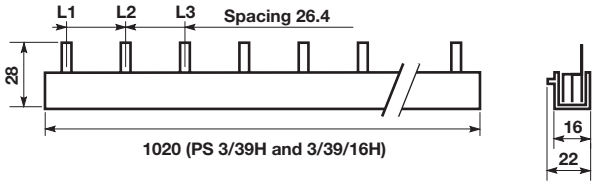

## PS 2/58



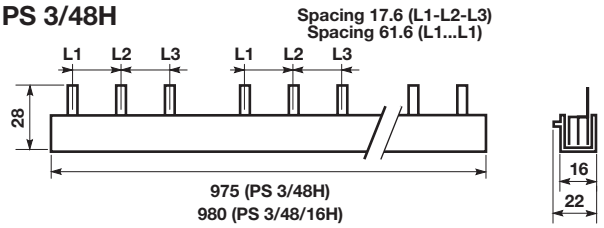

## PS 2/48




## PS 3/39H

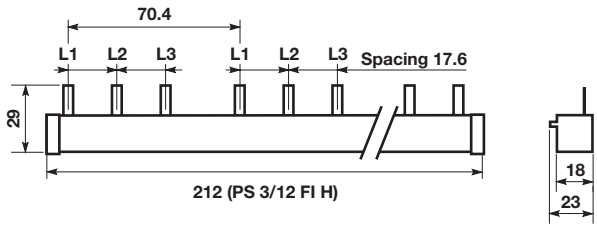



## PS 3/48H

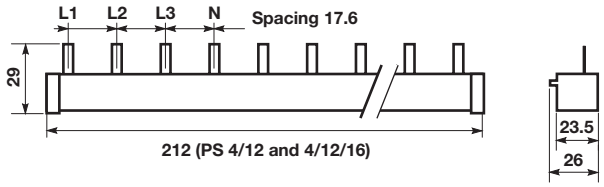


# Quick product references
## Overall dimensions

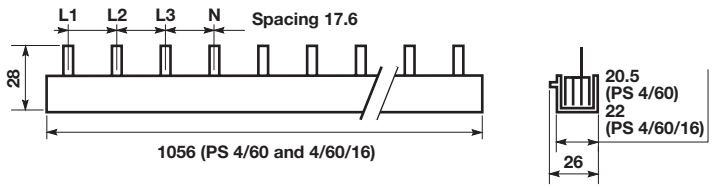
### PS 3/12 FI H



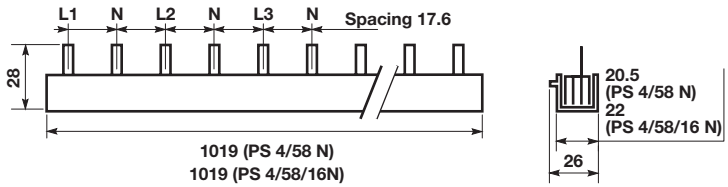

### PS 4/12



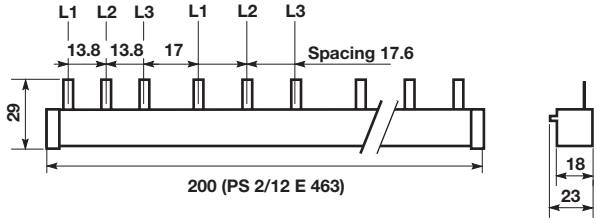

### PS 4/60




### PS 4/58 N



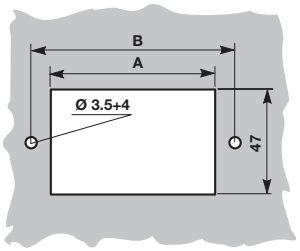

### PS 3/12 E 463



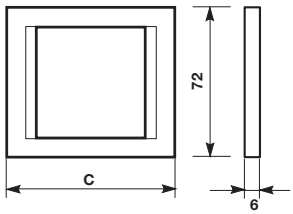
## ME flange for rear board mounting

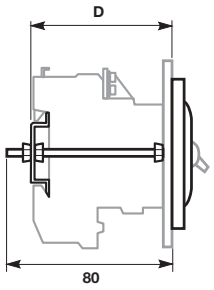
**DEPHT D**
57 mm for S 240-S 250-
S 270-S 280 circuit-breakers

72 mm for S 210 circuit-breakers

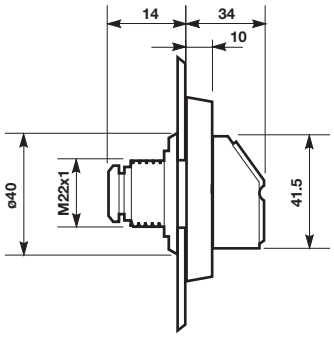


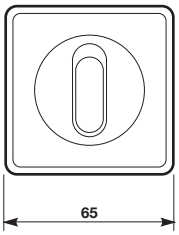

| TYPE | A | B | C |
|---|---|---|---|
| **ME 1 - 1 module** | 18 | 40 | 50 |
| **ME 2 - 2 modules** | 36 | 57.5 | 67 |
| **ME 3 - 3 modules** | 54 | 75.5 | 85 |
| **ME 4 - 4 modules** | 72 | 93 | 103 |
| **ME 6 - 6 modules** | 108 | 129 | 139 |
| **ME 8 - 8 modules** | 144 | 164 | 172 |

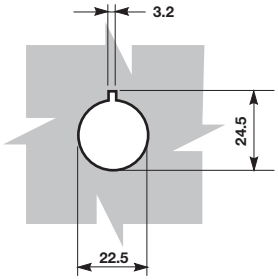



## OH_2A_



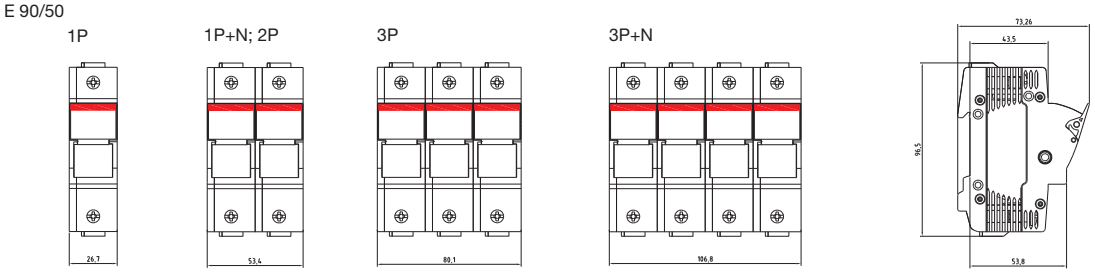



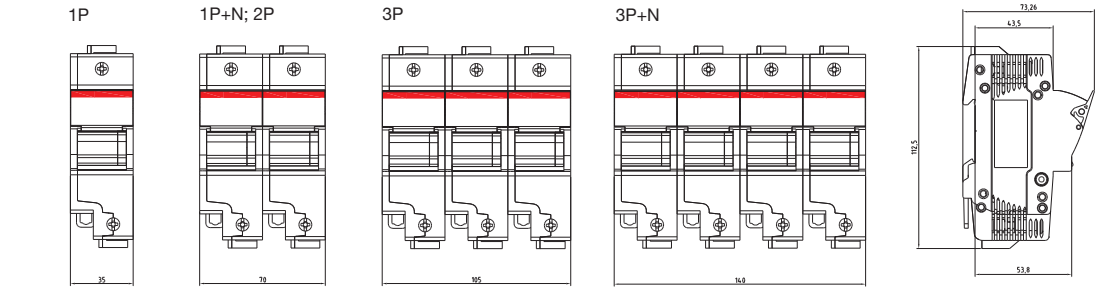
# Quick product references
# Overall dimensions

## E90 50/125

E 90/50

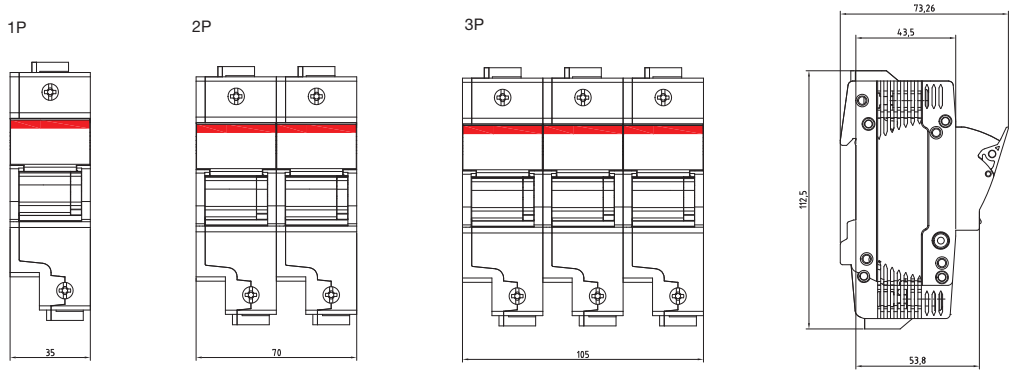



E 90/125

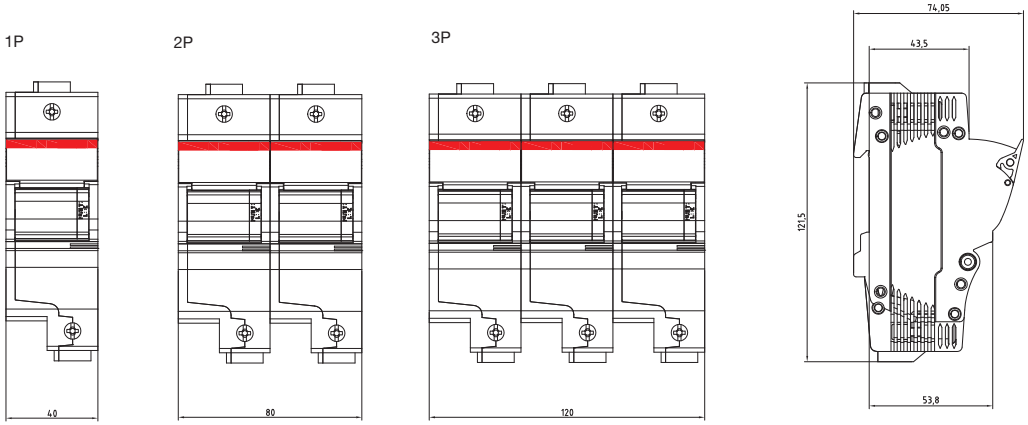



## E90 30/60 J class

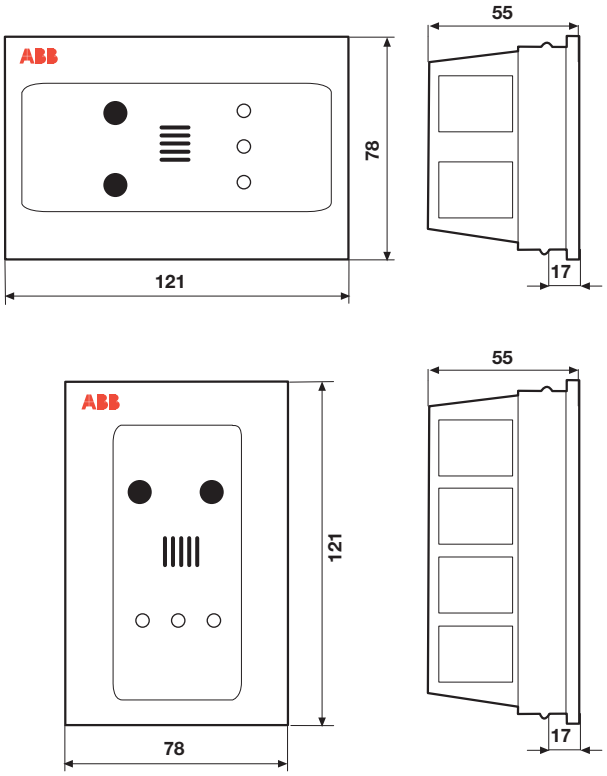
E 90/30 classJ




E 90/60 classJ



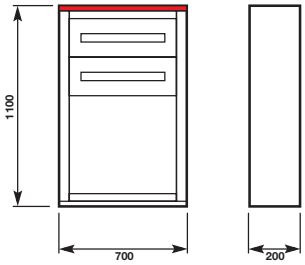
## QSD remote signalling panels



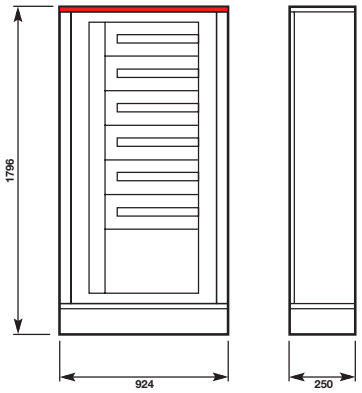
# Quick product references
# Overall dimensions

## QSO electrical switchboard for medical locations

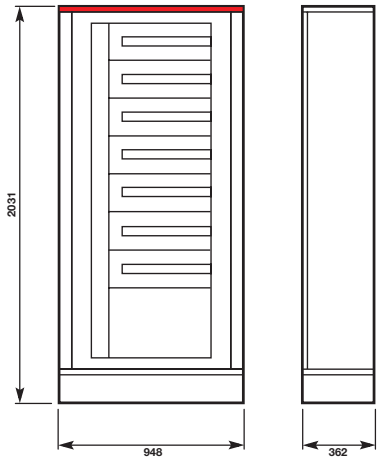
QSO S



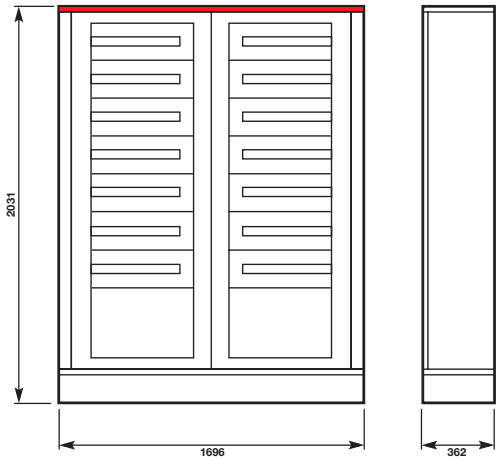

QSO M



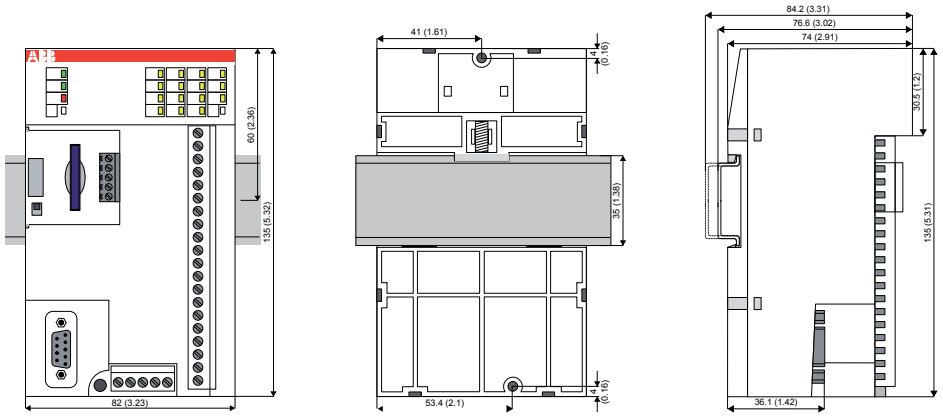

QSO L



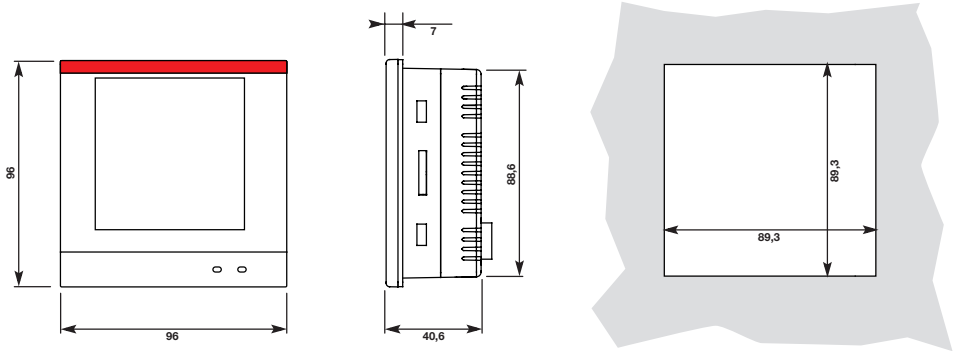

QSO XL



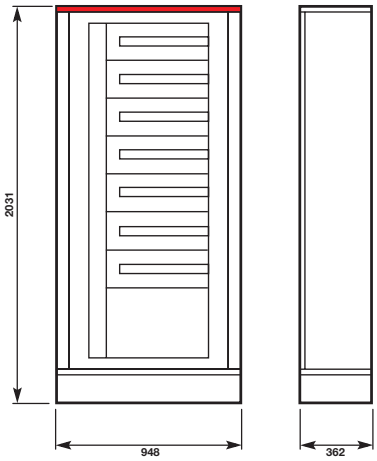

## PM554



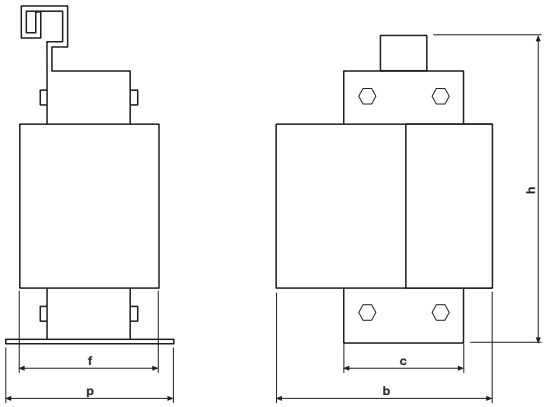
## CP415




## QIT



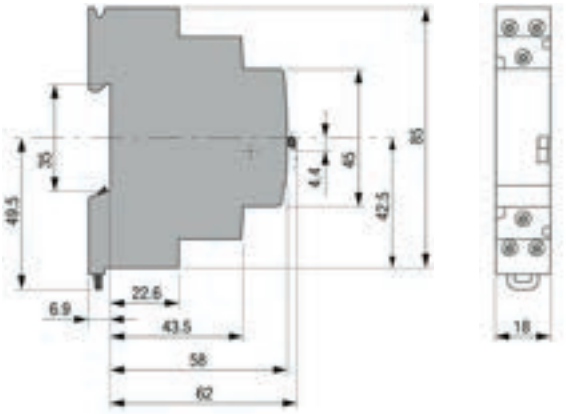

## TI insulating transformers



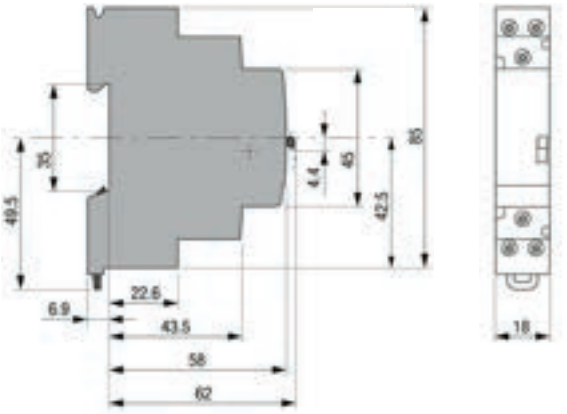

| Dimensions | Rated output [KVA] | | | |
|---|---|---|---|---|
| | 3 | 5 | 7,5 | 10 |
| b [mm] | 205 | 240 | 240 | 277 |
| c [mm] | 170 | 170 | 170 | 176 |
| f [mm] | 115 | 115 | 115 | 173 |
| h [mm] | 340 | 380 | 380 | 380 |
| p [mm] | 150 | 150 | 160 | 203 |
| Weight [kg] | 29,5 | 44 | 50,5 | 73 |

# Quick product references
## Overall dimensions

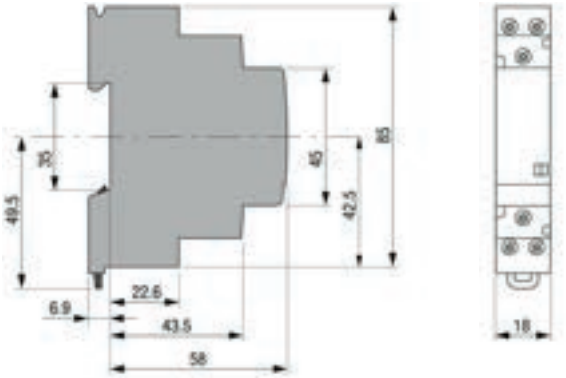
### E290 Latching Relays



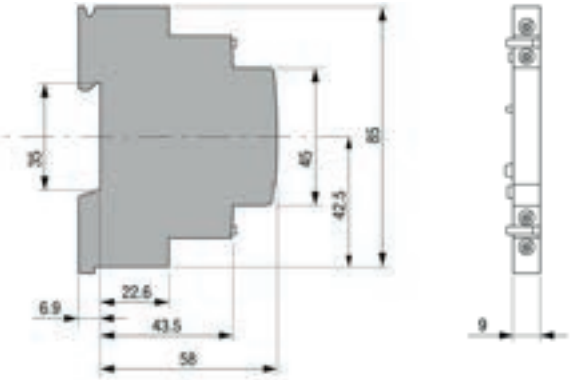

### E297 Installation Relays



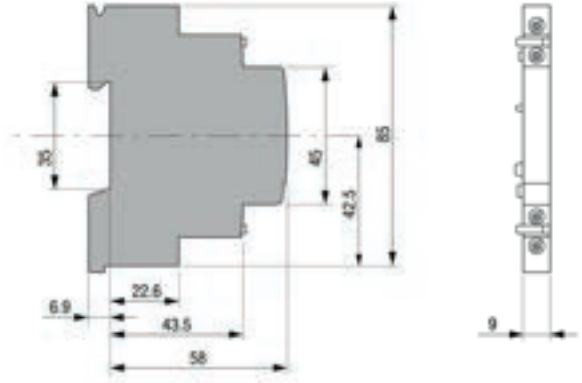

### E291S Sequential Latching Relay



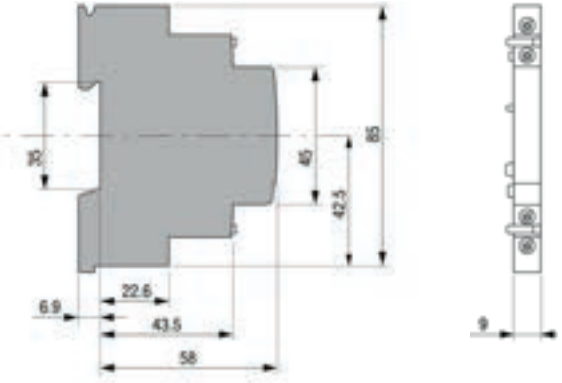

### E298 Main Contact Module



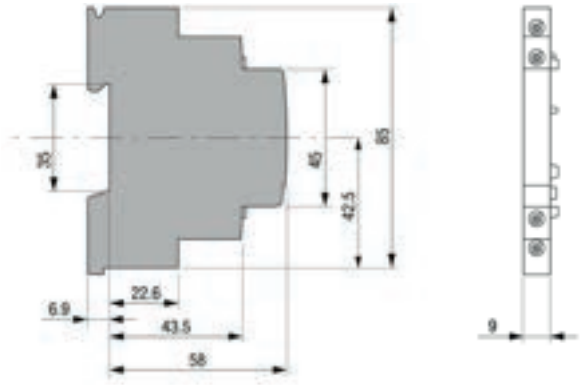

### E292 Main Contact Module



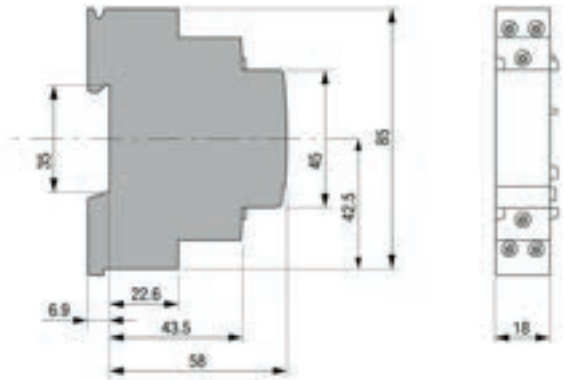

### E299-11 Auxiliary Contact



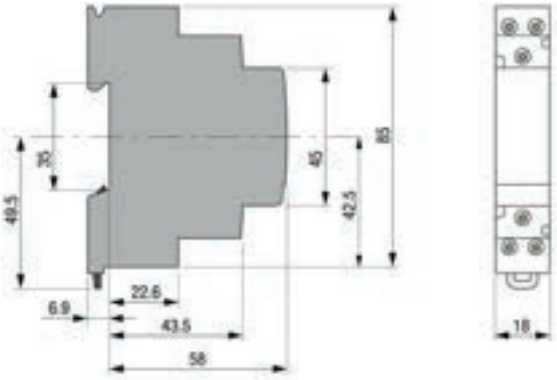
## E293/X Central On-Off Control Module
(for same control voltage potential)



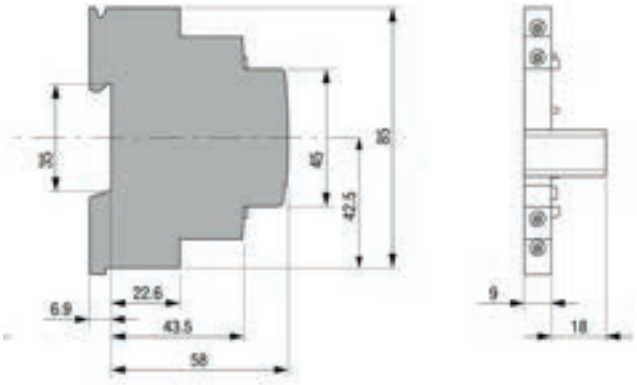

## E294 Central On-Off Control Module
(for different control voltage potential)



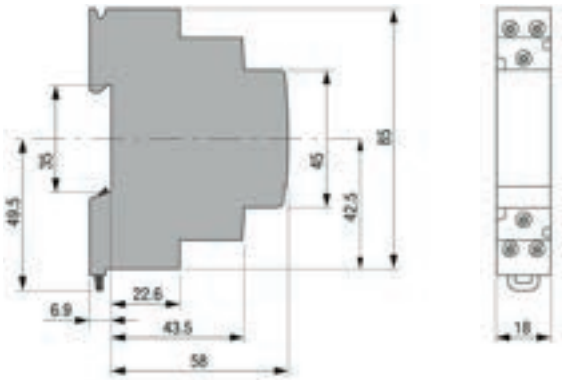

## E295-GM Group Module



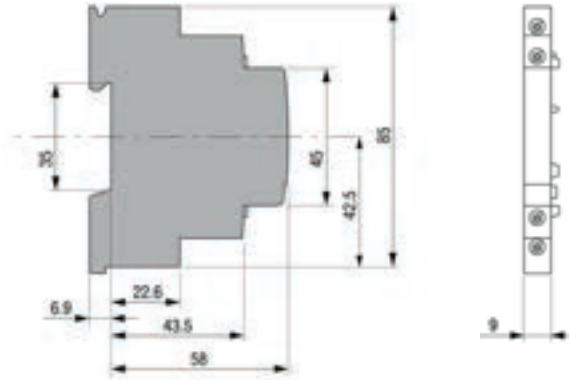

## E295-PS Permanent Signal Module




## E296-CP Compensator

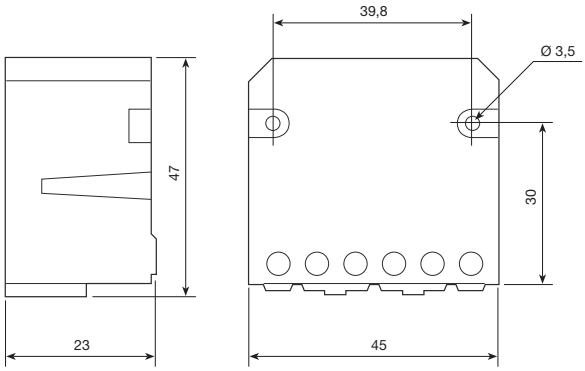



## E299-11 Auxiliary Contact

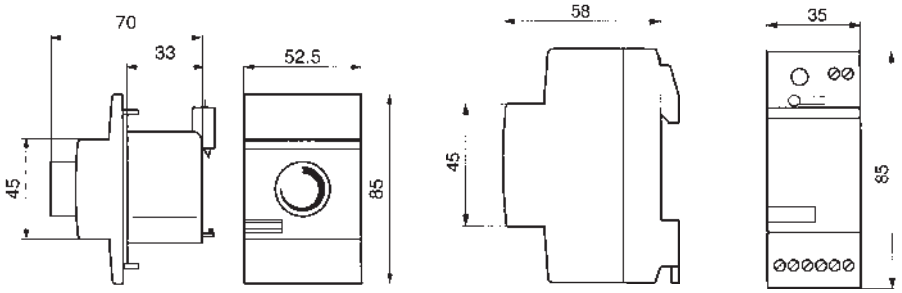


# Quick product references
## Overall dimensions

### FLR pulse relays




### STD dimmers




**STD 50**
**STD-EP**

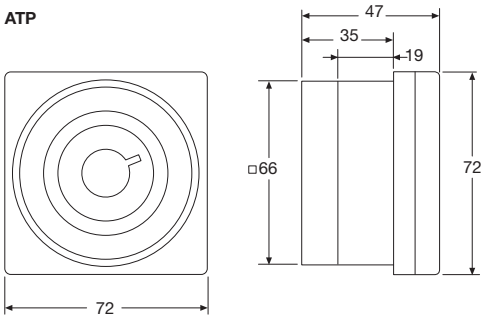
**3 modules**

**STD-500 MA**
**STD-MTS**

**2 modules**

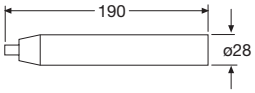
### AT electro-mechanical time switches

**ATP**

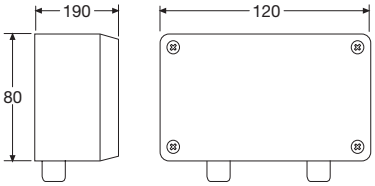



### D Line digital time switches

**D 365 DCF77**

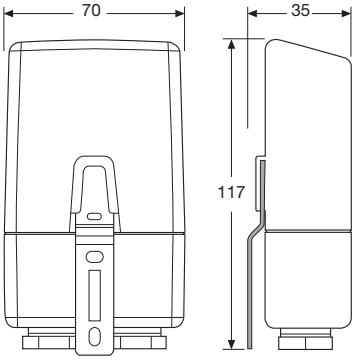



**D 365 GPS**

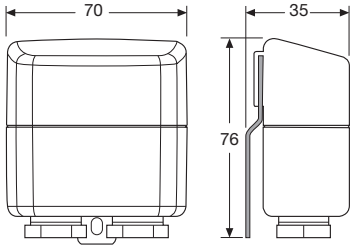


# Quick product references
# Overall dimensions

## T1 POLE

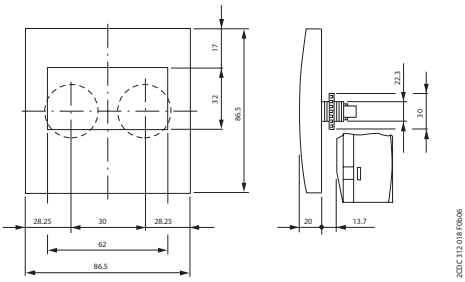



## LS-D

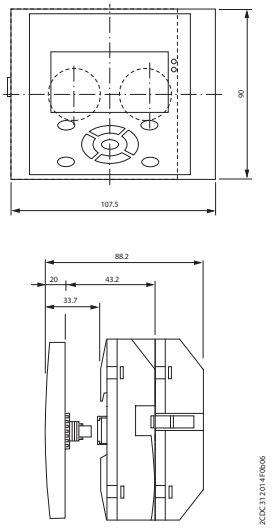



## CL logic relays

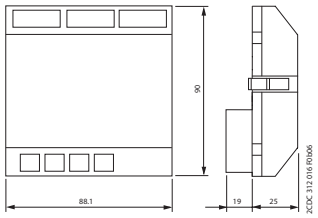
**CL-LDD**



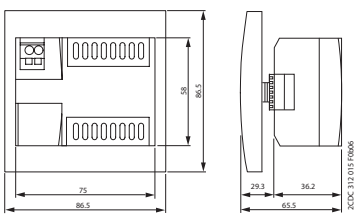

**CL-LDD.K + CL-LDC.L.. +**
**(CL-LDR or CL-LDT)**




**CL-LDR, CL-LDT**

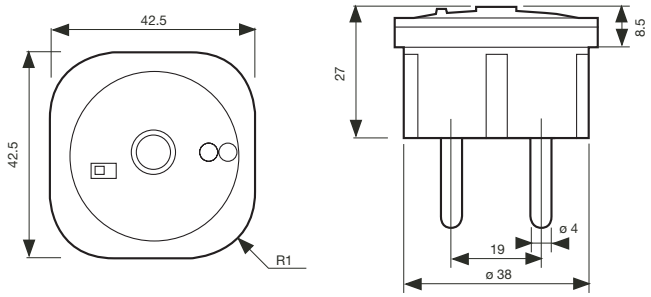



**CL-LDC.S..**

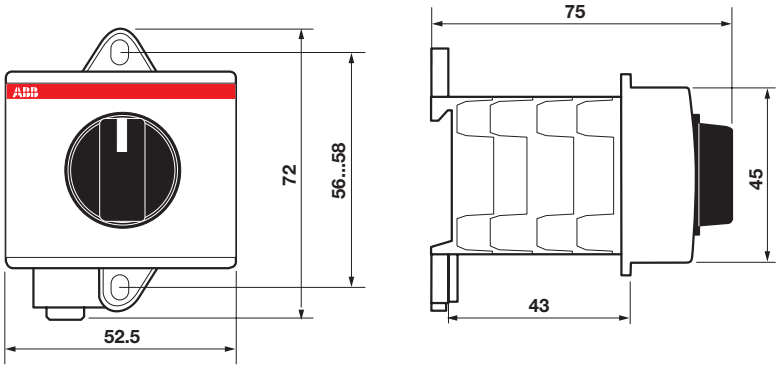


# Quick product references
## Overall dimensions

### LEE 230 power failure signalling lamp

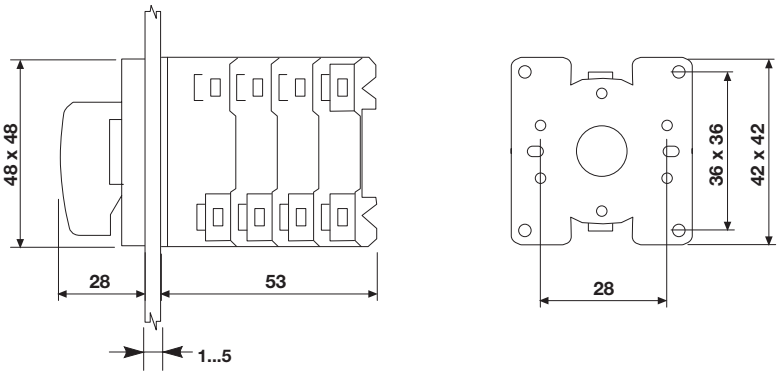



### MCV - MCA voltmetric and ammetric switches



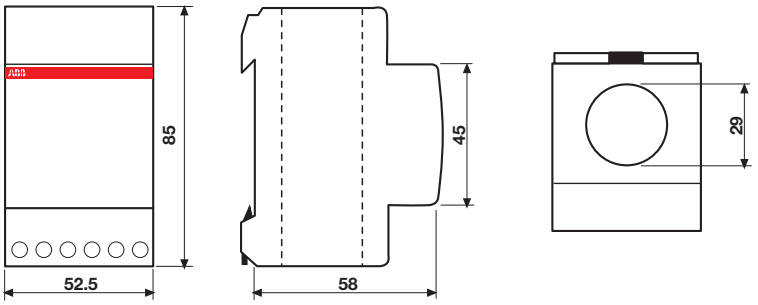

**3 modules**

### QCV - QCA front panel voltmetric and ammetric switches



## Modular current transformers with through primary

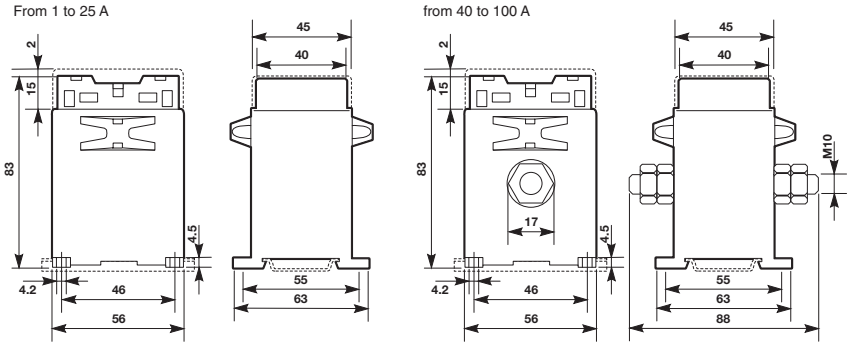
**TRF M**




**3 modules**

## Standard type current transformers.../5 A with wound primary

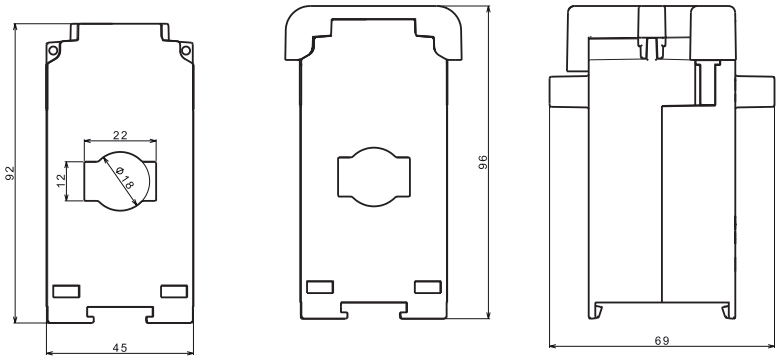
**CTA**



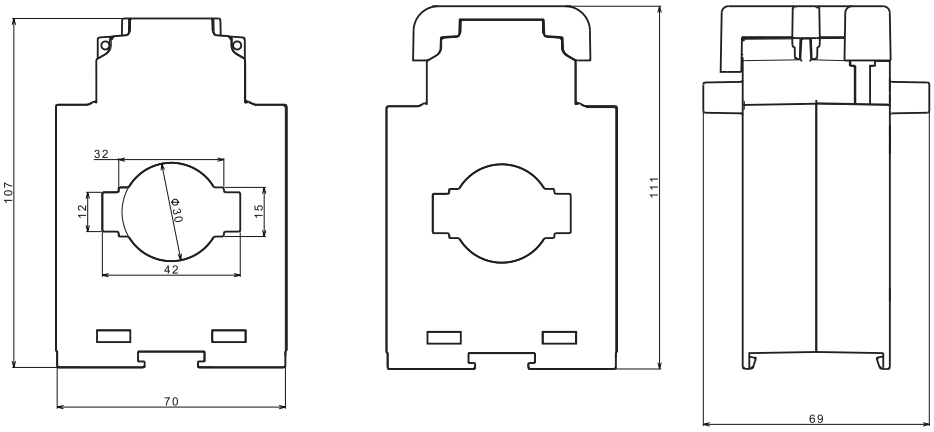
# Quick product references
## Overall dimensions

### Standard type current transformers...5 A with through primary

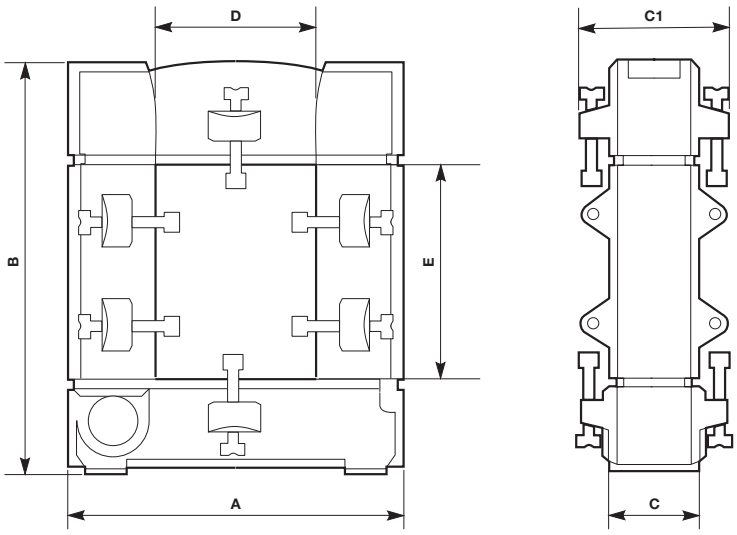
**CT PRO XT**




**CT MAX**



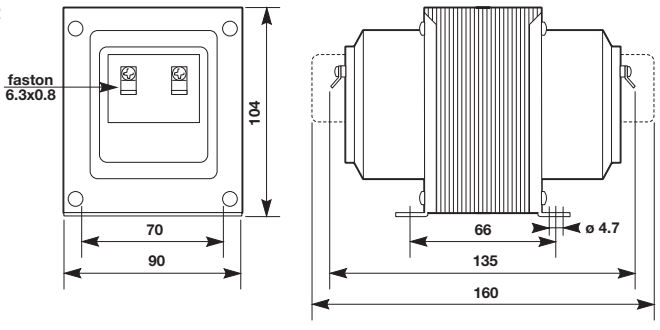
## CTO




| Tipo | A | B | C | C1 | D | E |
|---|---|---|---|---|---|---|
| **CT30...** | 93 | 106 | 34 | 58 | 20 | 30 |
| **CT80...** | 125 | 152 | 34 | 58 | 50 | 80 |
| **CT120...** | 155 | 198 | 34 | 58 | 80 | 120 |

## Voltage transformers

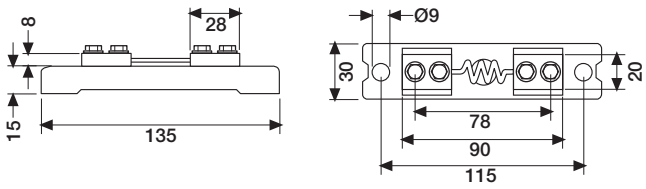
TV2



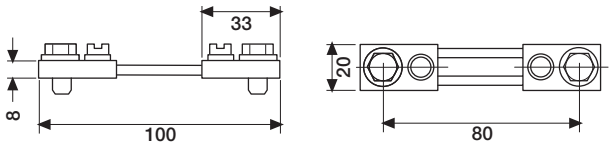
# Quick product references
# Overall dimensions

## Shunts

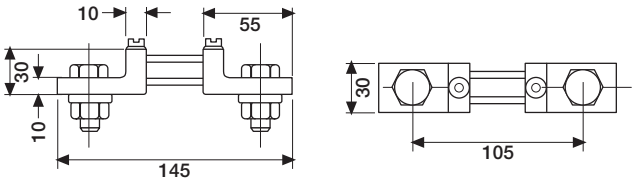
**SNT1 ÷ 25 A/60 mV**



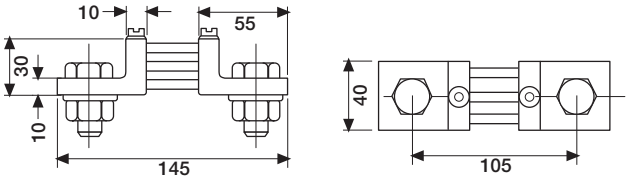

**SNT30 ÷ 150 A/60 mV**



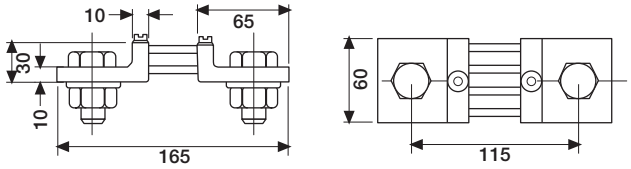

**SNT200 ÷ 250 A/60 mV**




**SNT400 ÷ 600 A/60 mV**

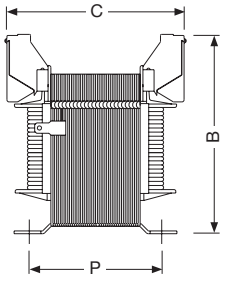



**SNT800 ÷ 1000 A/60 mV**

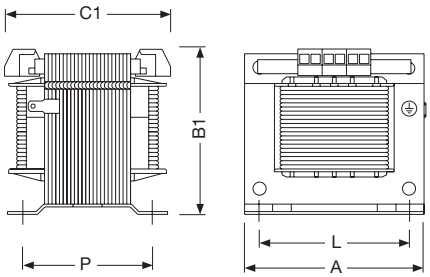


## TM-C. TM-S, TM-I

**from 50 up to 400 VA**



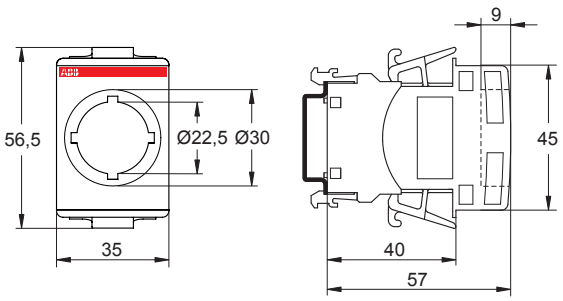

**from 630 up to 2500 VA**




**TM-C, TM-S and TM-I Control, Safety and Insolating transformers**

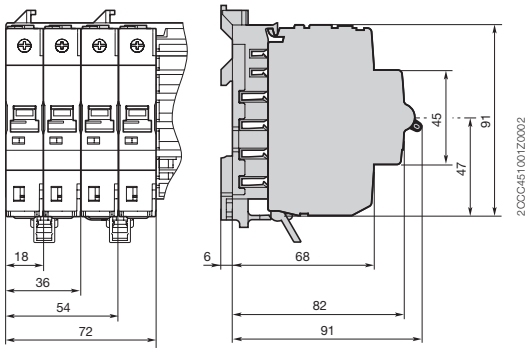
| Power (VA) | Picture | Dimensions | | | | | | | Screw | Wheigth (Kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | B1 | C | C1 | P | L | | |
| **50** | 1 | 77 | 90 | - | 74 | - | 46 | 56 | M4 | 1.1 |
| **100** | 1 | 86 | 96 | - | 87 | - | 63 | 64 | M4 | 2 |
| **160** | 1 | 100 | 107 | - | 89 | - | 73 | 84 | M5 | 3 |
| **200** | 1 | 100 | 107 | - | 89 | - | 73 | 84 | M5 | 3.2 |
| **250** | 1 | 100 | 107 | - | 105 | - | 89 | 84 | M5 | 3.6 |
| **320** | 1 | 123 | 122 | - | 102 | - | 73 | 90 | M5 | 4.4 |
| **400** | 1 | 123 | 122 | - | 112 | - | 85 | 90 | M5 | 5.5 |
| **630** | 2 | 154 | - | 150 | - | 126 | 90 | 122 | M6 | 7.8 |
| **1000** | 2 | 155 | - | 150 | - | 168 | 133 | 122 | M6 | 13.2 |
| **1600** | 2 | 196 | - | 195 | - | 200 | 125 | 155 | M8 | 21.2 |
| **2000** | 2 | 196 | - | 195 | - | 220 | 143 | 155 | M8 | 25.5 |
| **2500** | 2 | 196 | - | 195 | - | 230 | 153 | 155 | M8 | 26.8 |

## MA1-8001 DIN rail adapter

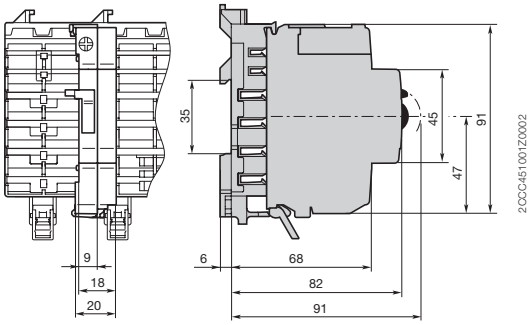


# Quick product references
# Overall dimensions

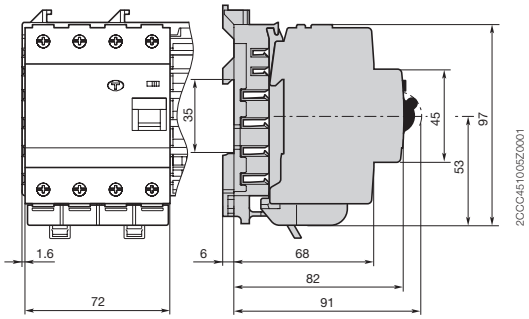
## 1-, 2-, 3- and 4-pole miniature circuit breakers S400



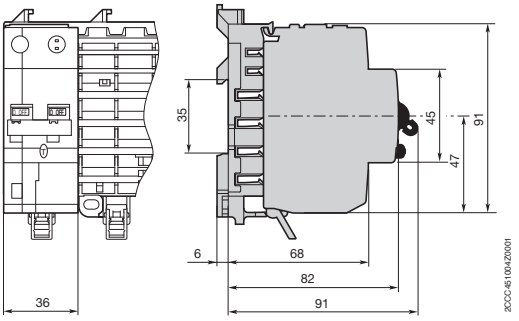

## Neutral disconnector



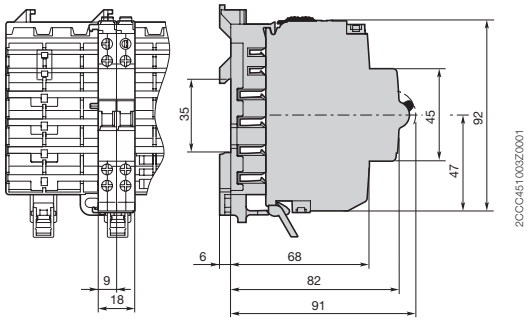

## 4-pole residual current operated circuit breaker, switch disconnector and surge arrester



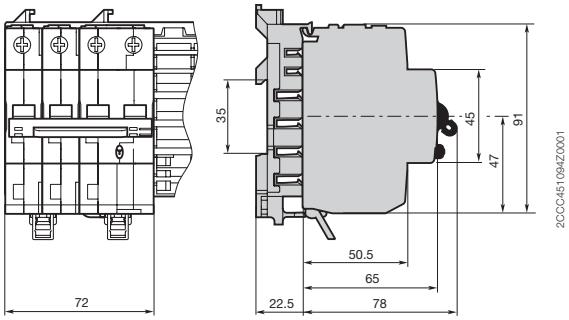

## 2-pole residual current operated circuit breaker



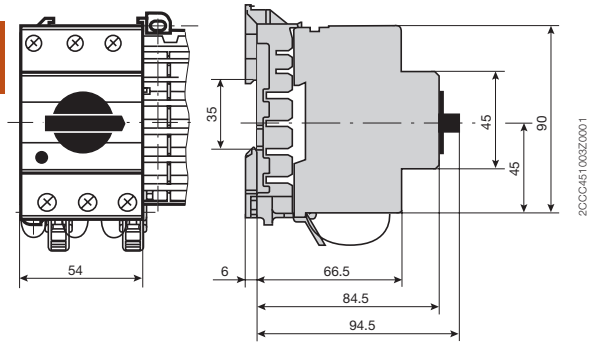

## Auxiliary switch and signal contact



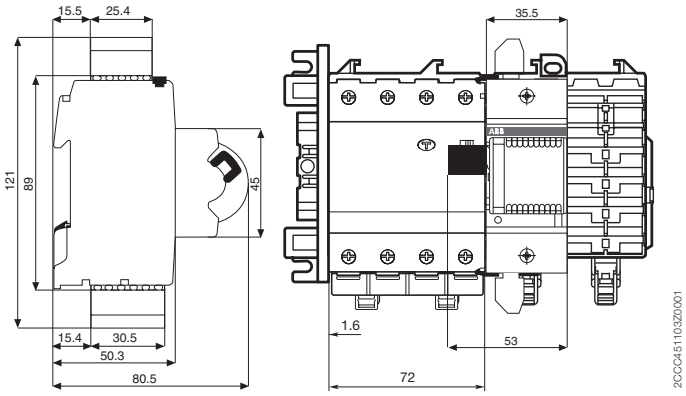

## 4-pole residual current operated circuit breaker



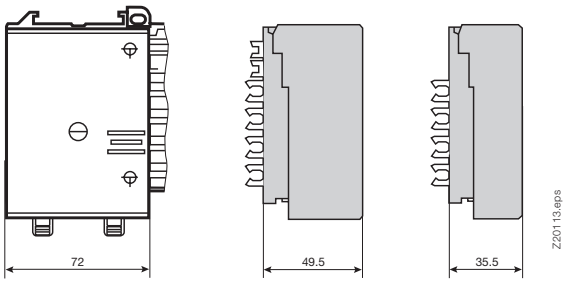

## High performance manual motor starter MS325




## F4C-CM and F4C-ARI

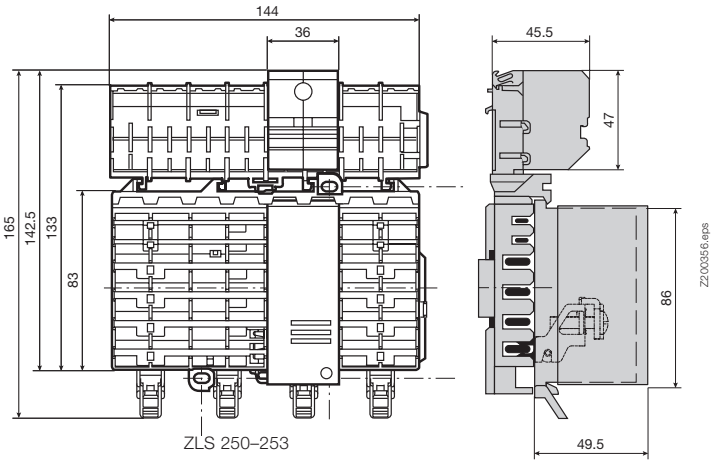


## Incoming terminal blocks 100 A/160 A



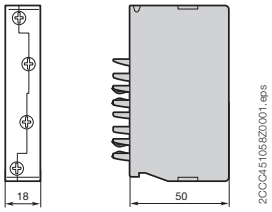

ZLS 224, 225 ZLS 228, 229

## Incoming terminal component 200 A



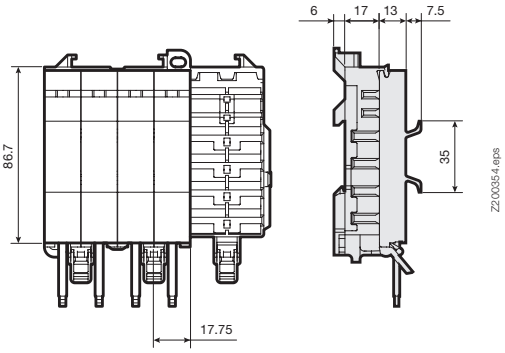

ZLS 250–253

## Incoming terminal blocks 63 A
## Incoming terminal block LA, LB



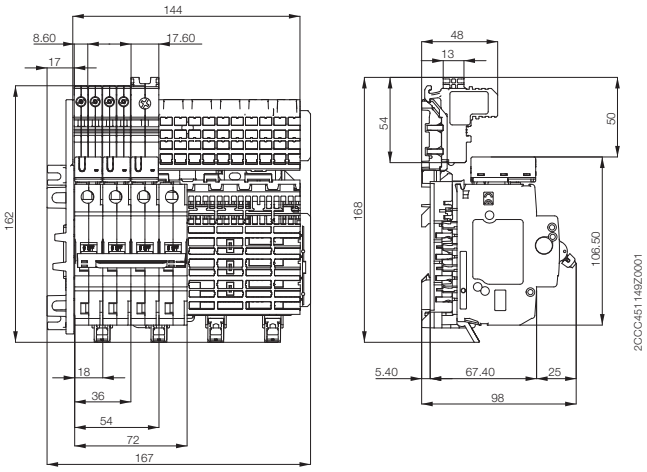

ZLS 260-262

## Universal adapter
## 32 A, 63 A



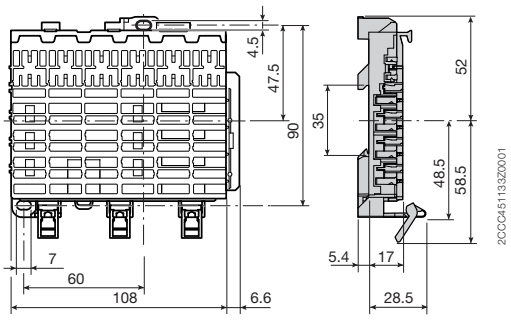

## Socket base ZLS908

Receptacle
– 8 dimensional units




## Socket base ZLS906

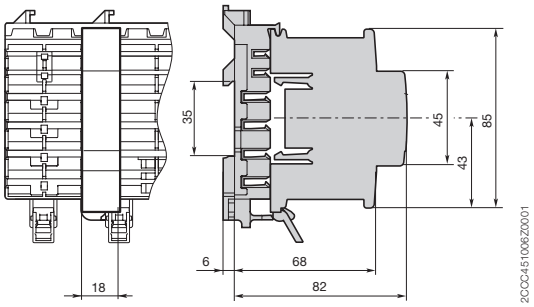
Receptacle
– 6 dimensional units



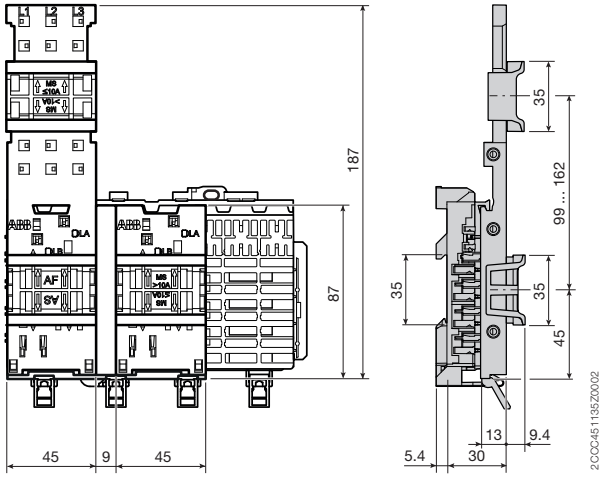

ZLS906

# Quick product references
# Overall dimensions

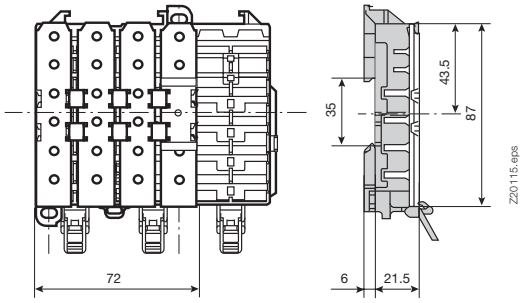
## Intermediate piece ZLS 725



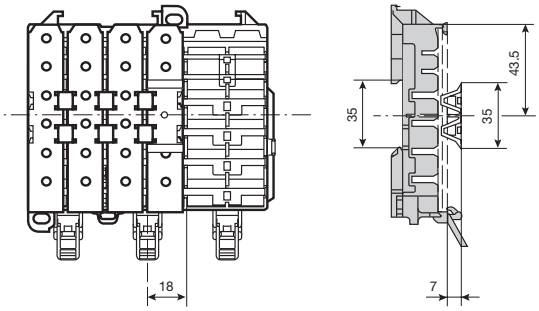

## Combi module ZMS132, Adapter MS116/132



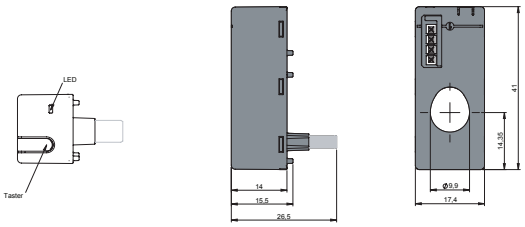

## Busbar cover ZLS100



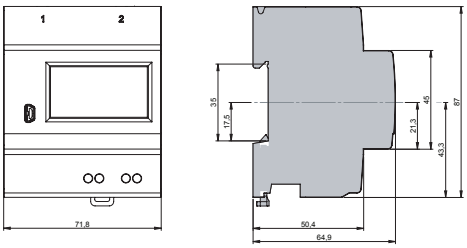

## Extension adapter ZLS101



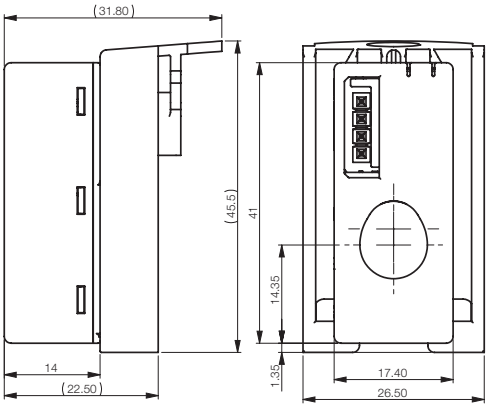

## Sensor (CMS-100PS)



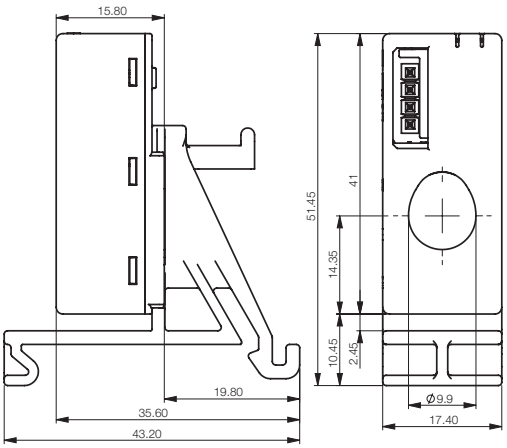

## Control Unit (CMS-600)



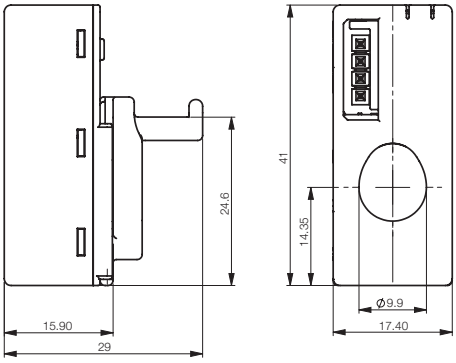
## Sensor (CMS-100S8)



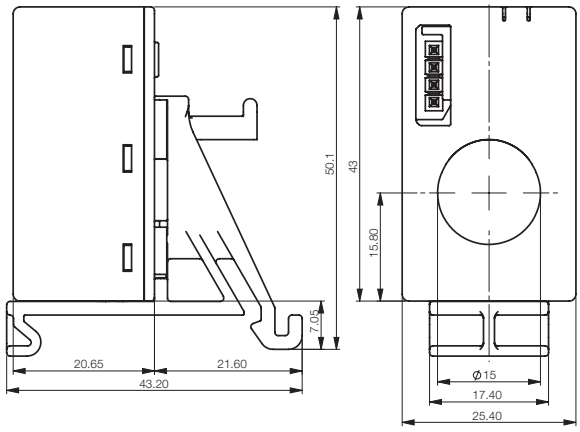

## Sensor (CMS-100DR)



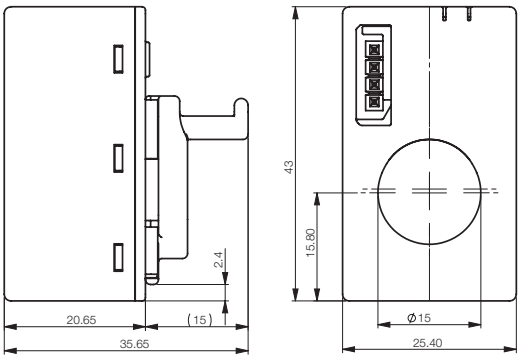

## Sensor (CMS-100CA)



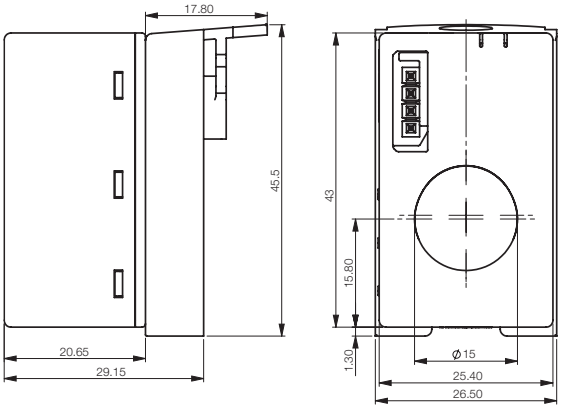

## Sensor (CMS-200DR)




## Sensor (CMS-200CA)

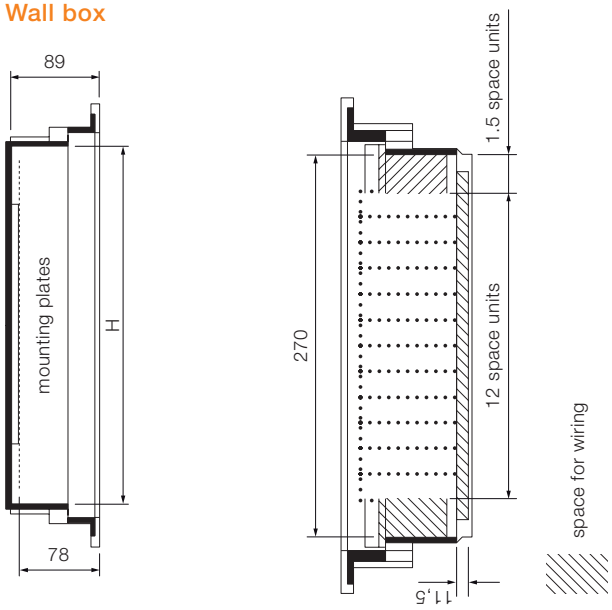



## Sensor (CMS-200CA)



# Quick product references
# Overall dimensions UK500 Series

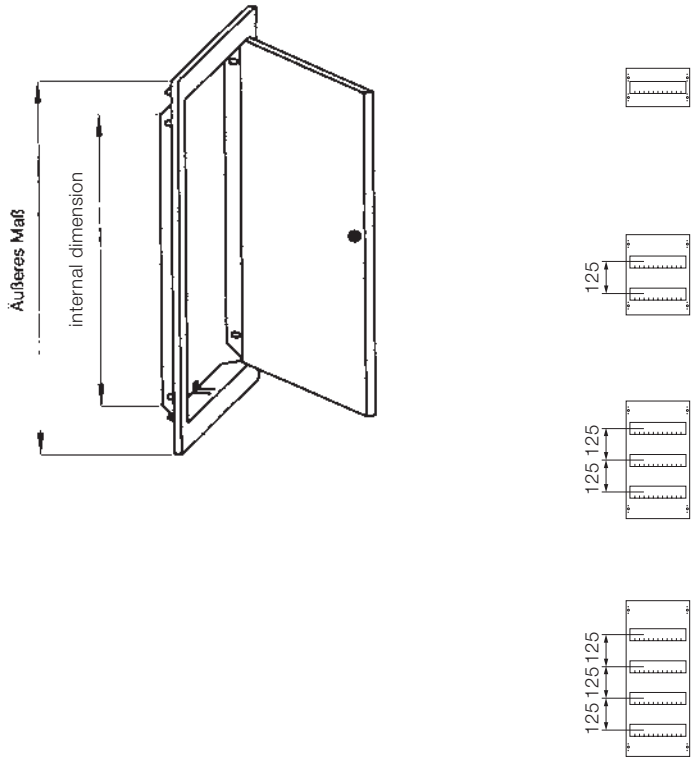
## Wall box




**Power loss and height**
**DIN 43871 with over temperature △T**

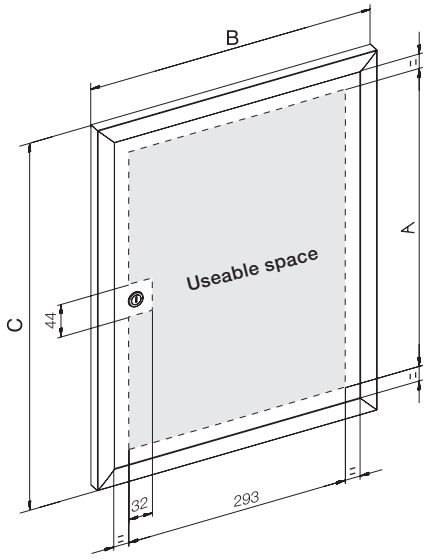
| Type | Power loss (W) | | | Height |
|---|---|---|---|---|
| | △T 20 K | △T 25 K | △T 30 K | in mm |
| UK51... | 10.0 | 13.0 | 16.0 | 250 |
| UK52... | 11.5 | 15.0 | 19.0 | 375 |
| UK53... | 14.5 | 19.0 | 24.0 | 500 |
| UK54... | 16.5 | 21.5 | 27.0 | 625 |

## Trim frame



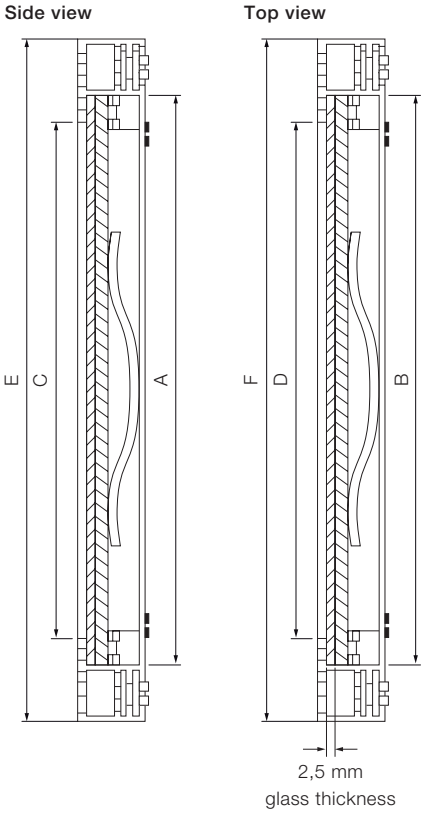

| Type | Int. dimensions (H x W mm) | Ext. dimensions (H x W mm) | Weight in kg |
|---|---|---|---|
| BL510 | 282 x 297 | 352 x 367 | 1.5 |
| BL516C | 282 x 297 | 352 x 367 | 1.5 |
| BL517C | 282 x 297 | 352 x 367 | 1.5 |
| BL517C | 282 x 297 | 352 x 367 | 1.5 |
| BL510K | 282 x 297 | 352 x 367 | 1.5 |
| BL520 | 407 x 297 | 477 x 367 | 1.9 |
| BL526C | 407 x 297 | 477 x 367 | 1.9 |
| BL527C | 407 x 297 | 477 x 367 | 1.9 |
| BL528C | 407 x 297 | 477 x 367 | 1.9 |
| BL520K | 407 x 297 | 477 x 367 | 1.9 |
| BL530 | 532 x 297 | 602 x 367 | 2.3 |
| BL536C | 532 x 297 | 602 x 367 | 2.3 |
| BL537C | 532 x 297 | 602 x 367 | 2.3 |
| BL538C | 532 x 297 | 602 x 367 | 2.3 |
| BL530K | 532 x 297 | 602 x 367 | 2.3 |
| BL530L | 532 x 297 | 602 x 367 | 2.3 |
| BL540 | 657 x 297 | 727 x 367 | 2.7 |
| BL546C | 657 x 297 | 727 x 367 | 2.7 |
| BL547C | 657 x 297 | 727 x 367 | 2.7 |
| BL548C | 657 x 297 | 727 x 367 | 2.7 |
| BL540K | 657 x 297 | 727 x 367 | 2.7 |
| BL540L | 657 x 297 | 727 x 367 | 2.7 |

## Control panel




| Type | A | B | C |
|---|---|---|---|
| FPT510 | 278 | 374 | 362 |
| FPT520 | 403 | 374 | 487 |
| FPT530 | 528 | 374 | 612 |

## Picture frame door

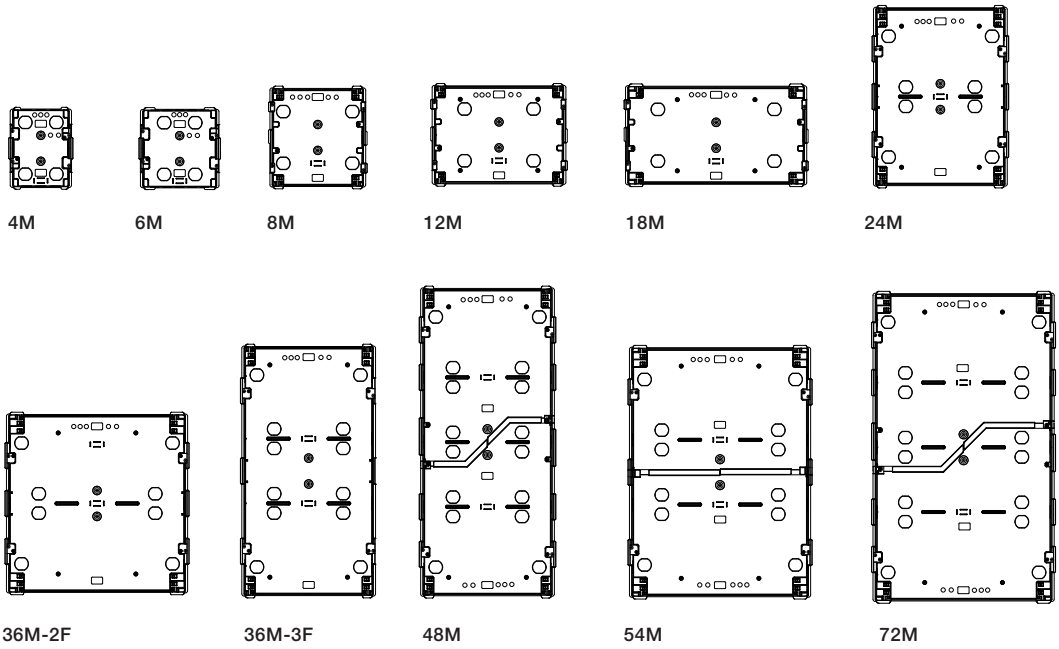



| Type | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| BL521D | 417 | 308 | 402 | 293 | 487 | 378 |
| BL531D | 542 | 308 | 526 | 293 | 612 | 378 |
| BL527D | 456 | 343 | 441 | 328 | 487 | 374 |
| BL537D | 581 | 343 | 566 | 328 | 612 | 374 |

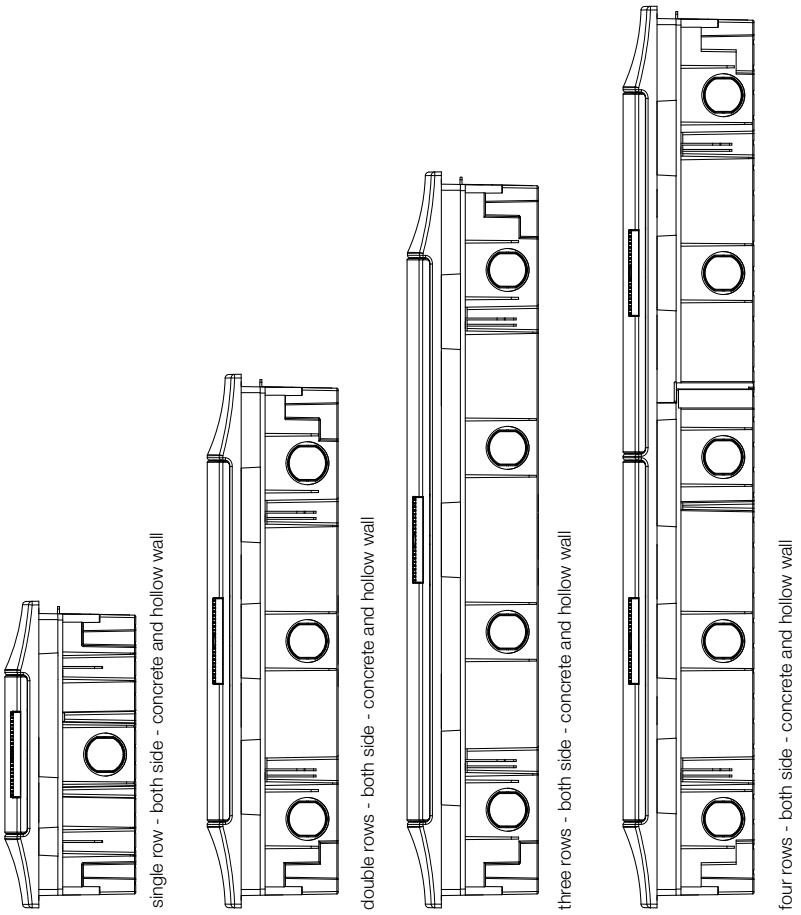
# Quick product references
# Overall dimensions

## System pro *E* comfort MISTRAL41F

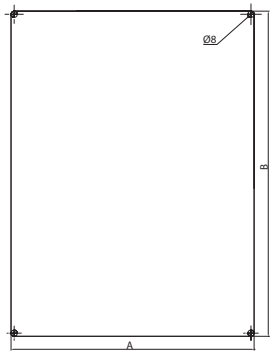
| Box | |
|---|---|
| **Modules** | **diam. 32** |
| 4 M | 4 |
| 6 M | 4 |
| 8 M | 4 |
| 12 M | 4 |
| 18 M | 4 |
| 24 M | 8 |
| 36 M – 2F | 8 |
| 36 M – 3F | 12 |
| 48 M | 16 |
| 54 M | 12 |
| 72 M | 16 |




| Site | |
|---|---|
| **Modules** | **diam. 32** |
| 4 M | 1 |
| 6 M | 1 |
| 8 M | 1 |
| 12 M | 1 |
| 18 M | 1 |
| 24 M | 3 |
| 36 M – 2F | 3 |
| 36 M – 3F | 4 |
| 48 M | 5 |
| 54 M | 4 |
| 72 M | 5 |

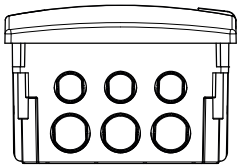


## Hollow wall holes dimensions

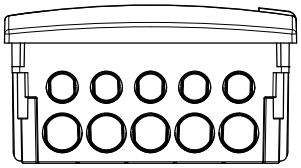



| | A | B |
|---|---|---|
| 4 M | 143 | 183 |
| 6 M | 183 | 183 |
| 8 M | 223 | 231 |
| 12 M | 311 | 231 |
| 18 M | 421 | 231 |
| 24 M | 311 | 416 |
| 36M - 2F | 421 | 416 |
| 36M - 3F | 311 | 581 |
| 48 M | 311 | 716 |
| 54 M | 421 | 581 |
| 72 M | 421 | 716 |

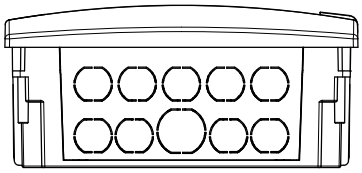
| Cable entry | | | | | |
|---|---|---|---|---|---|
| **Modules** | **diam. 40** | **diam. 32** | **diam. 25** | **diam. 20** | **Flange** |
| 4 | - | - | 3 | 3 | /// |
| 6 | - | - | 5 | 5 | /// |
| 8 | - | 1 | 9 | - | 150x55 |
| 12 | 1 | 8 | 4 | - | 240x55 |
| 18 | 1 | 12 | 2 | - | 330x55 |



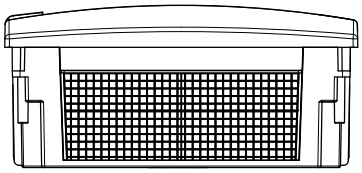
4 modules - top and bottom - concrete and hollow wall



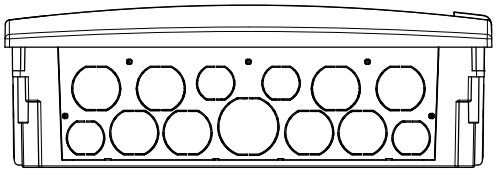
6 modules - top and bottom - concrete and hollow wall



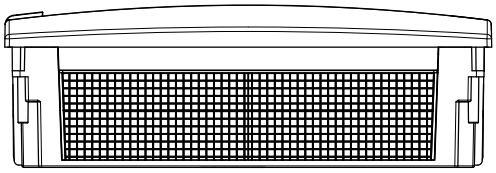
8 modules - top and bottom - hollow wall



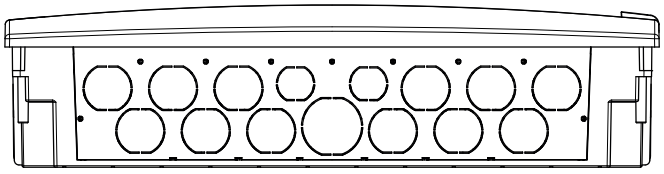
8 modules - top and bottom - concrete wall



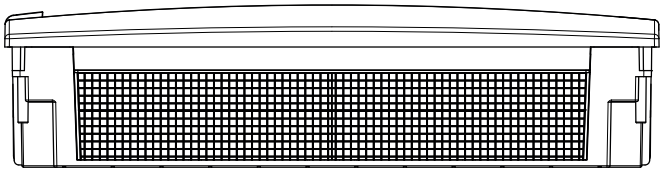
12 modules - top and bottom - hollow wall



12 modules - top and bottom - concrete wall



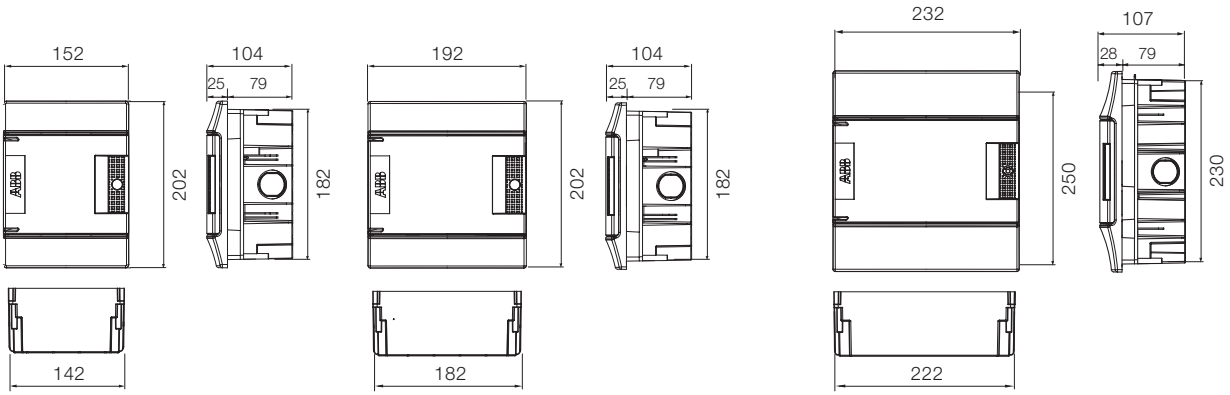
18 modules - top and bottom - hollow wall



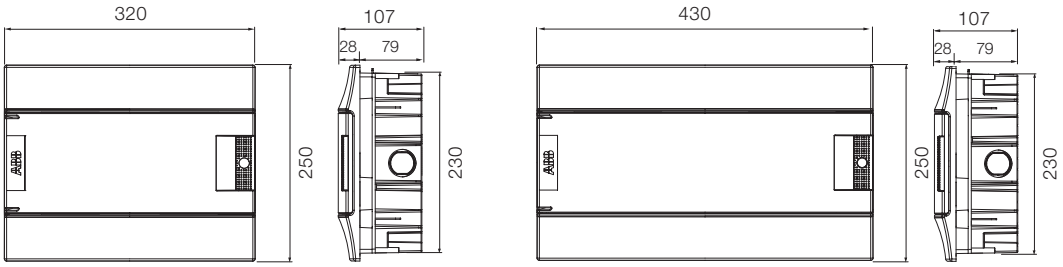
18 modules - top and bottom - concrete wall

# Quick product references
# Overall dimensions

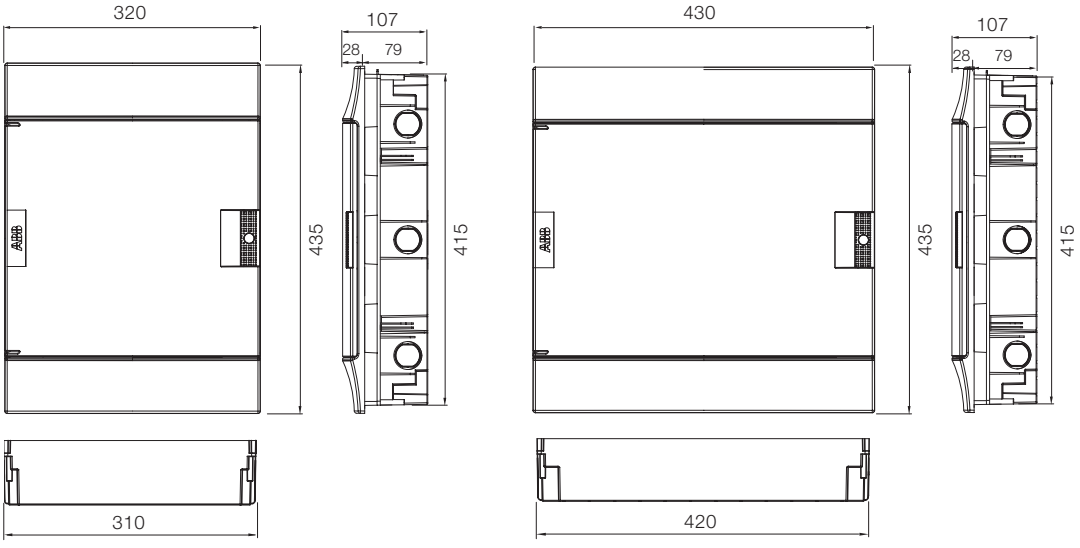
## System pro *E* comfort MISTRAL41F



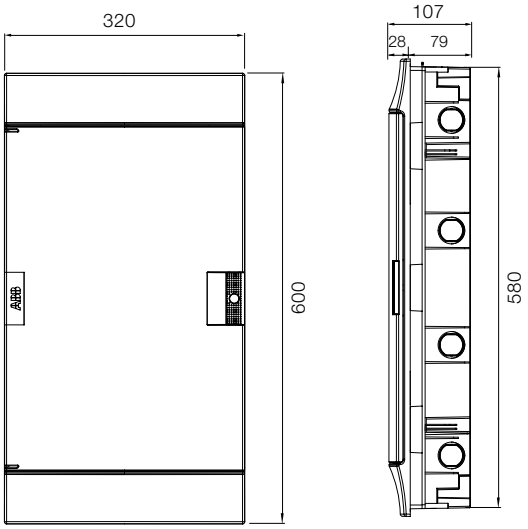

**4 modules** **6 modules** **8 modules**



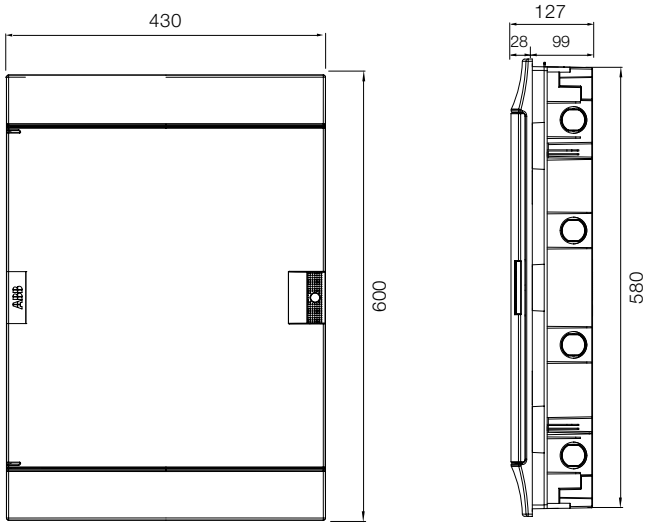

**12 modules** **18 modules**



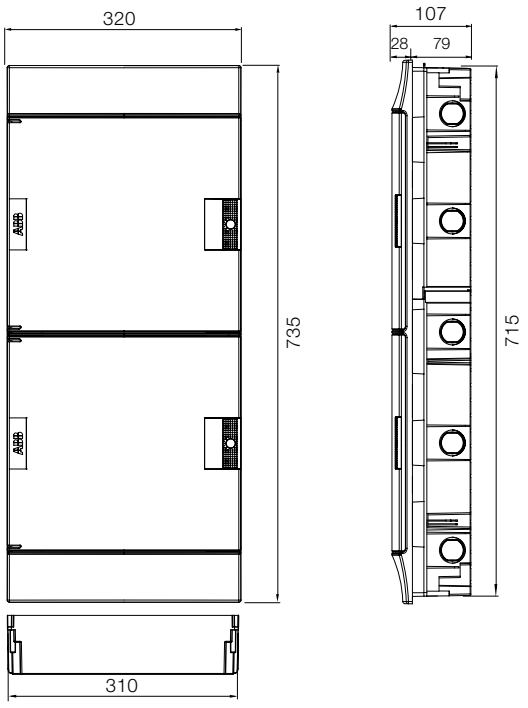

**24 modules** **36 modules**



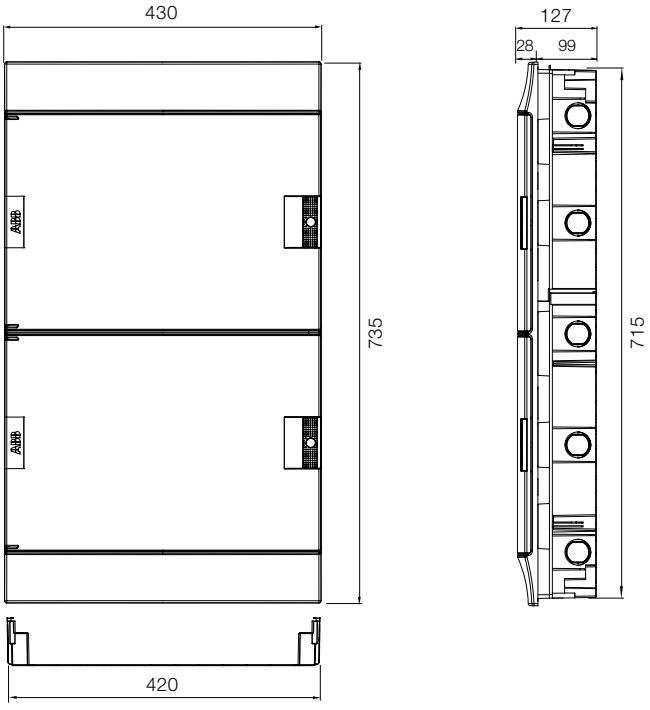

**36 modules**




**54 modules**



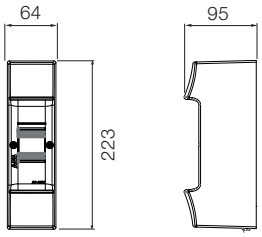

**48 modules**



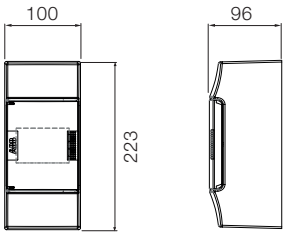

**72 modules**

# Quick product references
# Overall dimensions

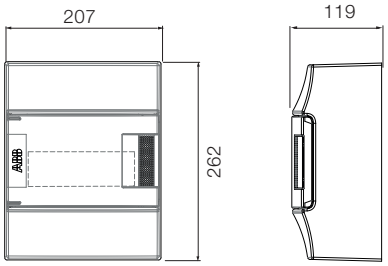
## System pro *E* comfort MISTRAL41W



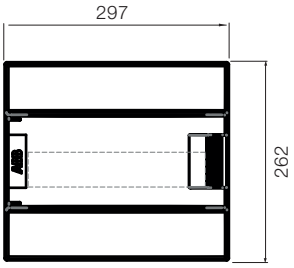

1 module



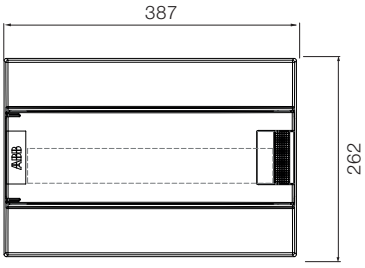

4 modules



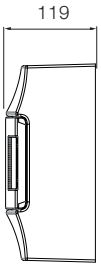

8 modules

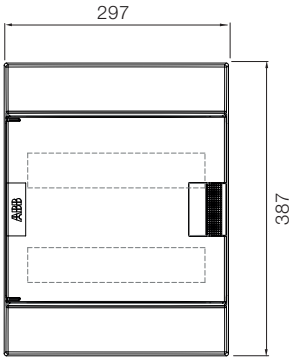



12 modules

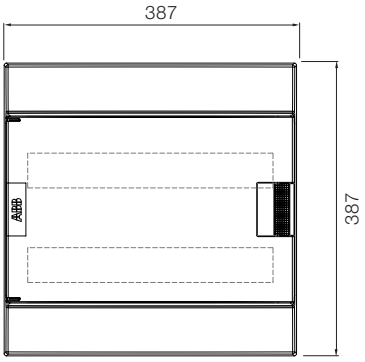



18 modules

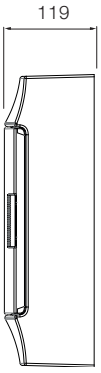


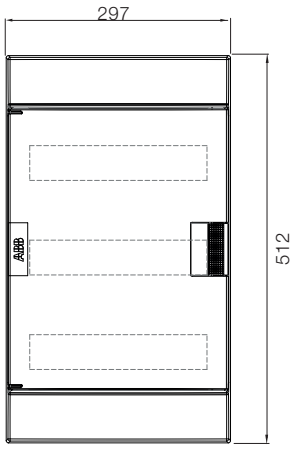




24 modules

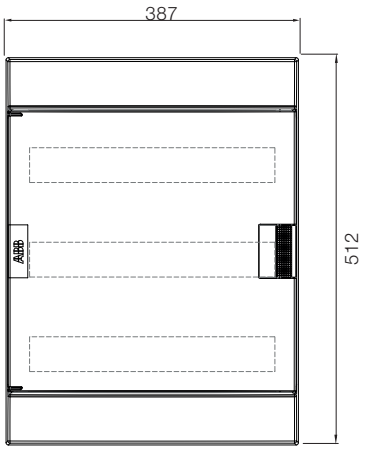



36 modules

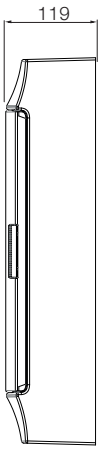


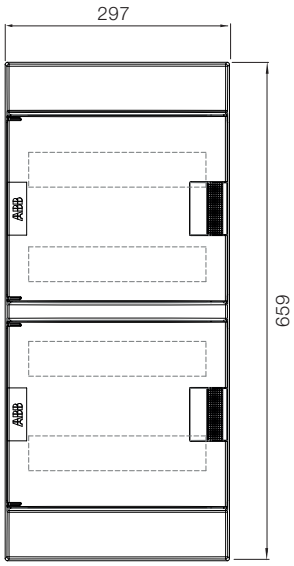



36 modules

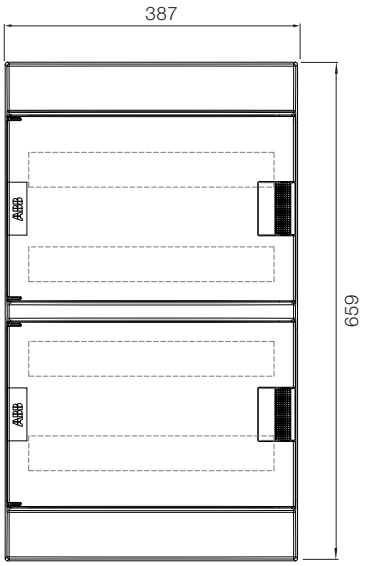



54 modules

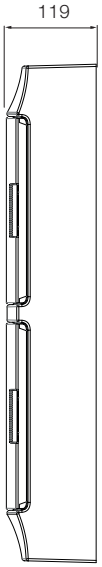



48 modules



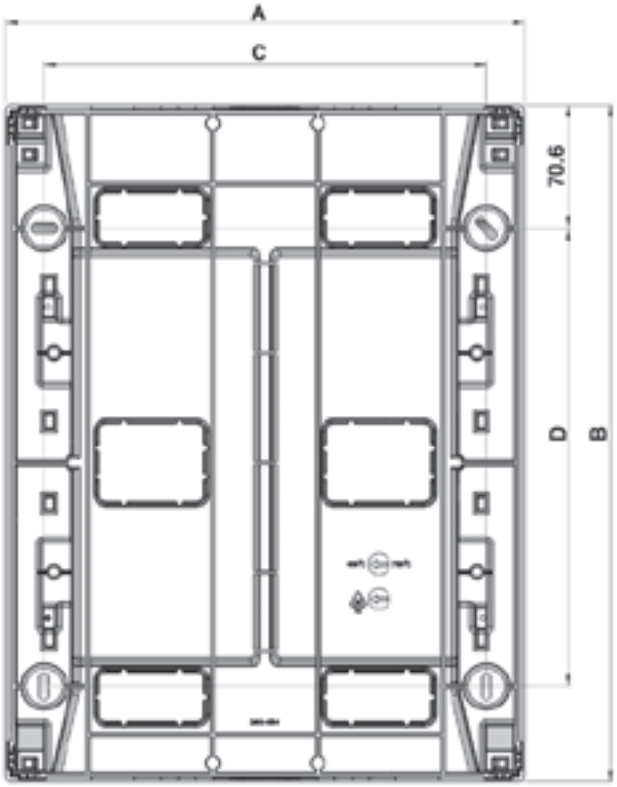

72 modules



# Quick product references
# Overall dimensions

## System pro *E* comfort MISTRAL41W

### Consumer unit fixing template System pro *E* comfort MISTRAL41W



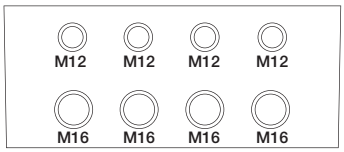

| | A | B | C | D |
|---|---|---|---|---|
| 8 Modules | 206,5 | 262 | 163 | 137 |
| 12 Modules | 297 | 262 | 253 | 137 |
| 18 Modules | 387 | 262 | 343 | 137 |
| 24 Modules | 297 | 387 | 253 | 262 |
| 36 Modules 18x2 | 387 | 387 | 343 | 262 |
| 36 Modules 12x3 | 297 | 512 | 253 | 387 |
| 48 Modules | 297 | 659 | 253 | 518 |
| 54 Modules | 387 | 512 | 343 | 387 |
| 72 Modules | 387 | 659 | 343 | 518 |

## System pro *E* comfort MISTRAL65

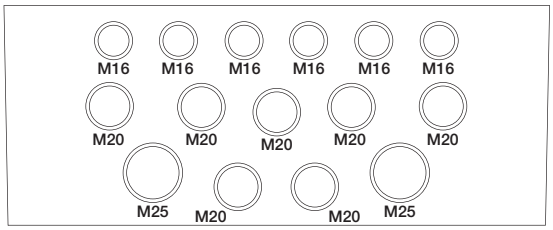
### Cable gland table

| | | Cable Glands | | |
|---|---|---|---|---|
| **Modules** | | **diam. 16** | **diam. 20** | **diam. 25** |
| 4 | 04x1 | 2 | - | - |
| 8 | 08x1 | 3 | 3 | - |
| 12 | 12x1 | 2 | 2 | 2 |
| 24 | 12x2 | 5 | 5 | 2 |
| 36 | 12x3 | 5 | 5 | 2 |
| 48 | 12x4 | 5 | 5 | 2 |
| 18 | 18x1 | 2 | 2 | 2 |
| 36 | 18x2 | 5 | 5 | 2 |
| 54 | 18x3 | 5 | 5 | 2 |
| 72 | 18x4 | 5 | 5 | 2 |

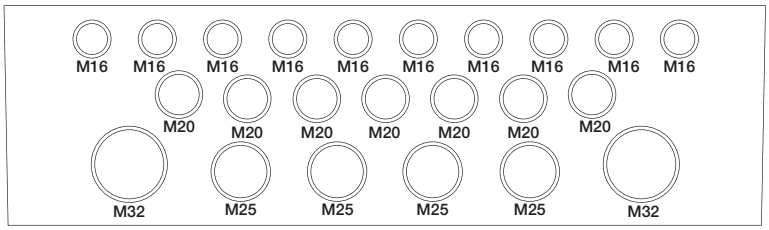
| | | Holes | | | | |
|---|---|---|---|---|---|---|
| **Modules** | | **diam. 12** | **diam. 16** | **diam. 20** | **diam. 25** | **diam. 32** |
| 4 | 04x1 | 4 | 4 | - | - | - |
| 8 | 08x1 | - | 6 | 7 | 2 | - |
| 12 | 12x1 | - | 10 | 7 | 4 | 2 |
| 24 | 12x2 | - | 10 | 7 | 4 | 2 |
| 36 | 12x3 | - | 10 | 7 | 4 | 2 |
| 48 | 12x4 | - | 10 | 7 | 4 | 2 |
| 18 | 18x1 | - | 14 | 9 | 4 | 2 |
| 36 | 18x2 | - | 14 | 9 | 4 | 2 |
| 54 | 18x3 | - | 14 | 9 | 4 | 2 |
| 72 | 18x4 | - | 14 | 9 | 4 | 2 |



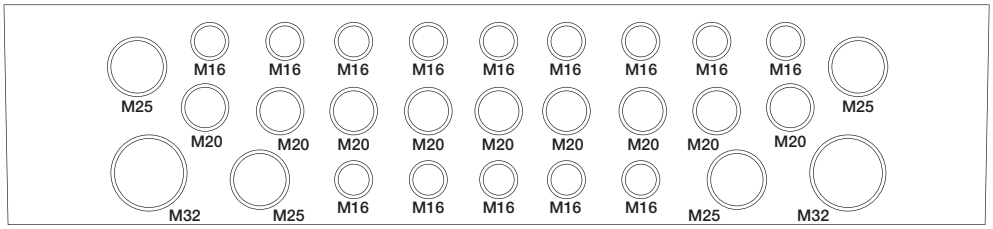

4 modules - top and bottom




8 modules - top and bottom



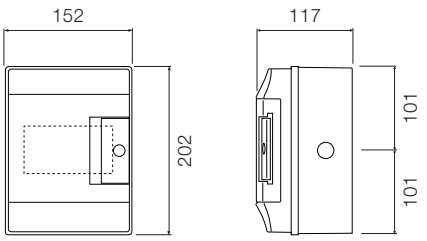

12 modules - top and bottom



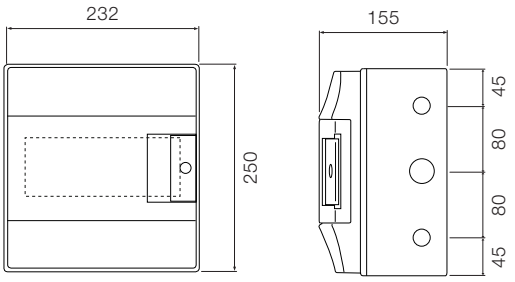

18 modules - top and bottom

# Quick product references
# Overall dimensions

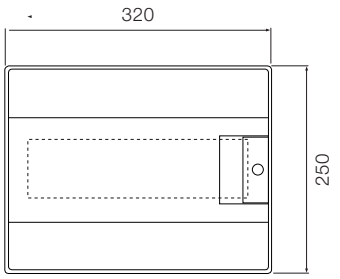
## System pro *E* comfort MISTRAL65



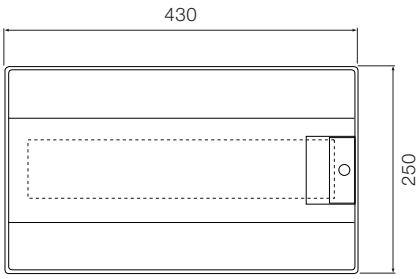

4 modules



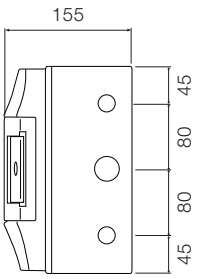

8 modules

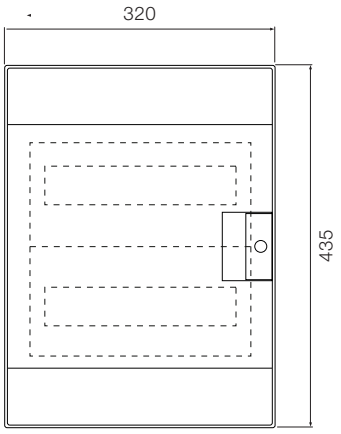



12 modules

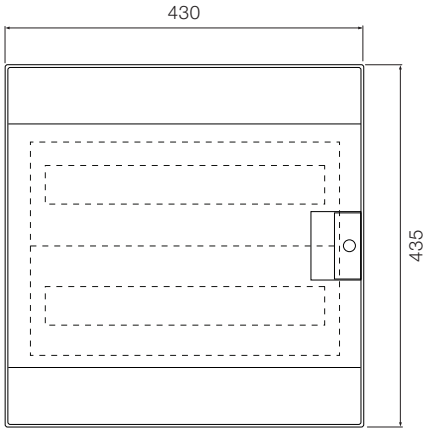



18 modules

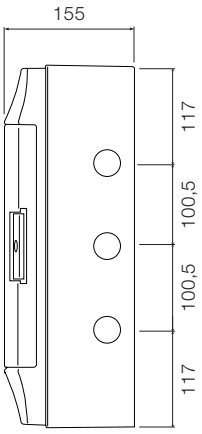


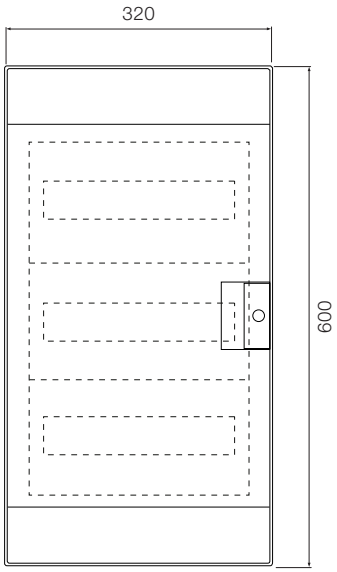




24 modules

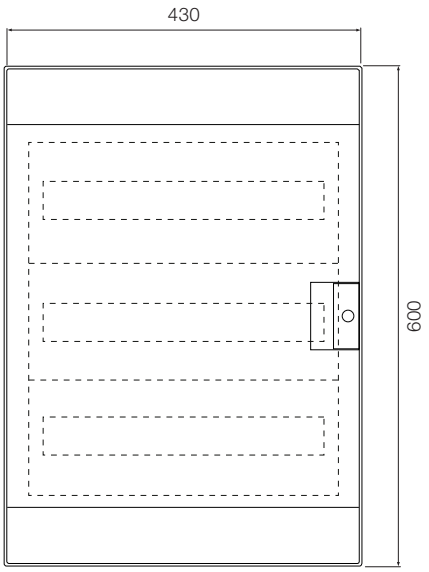



36 modules

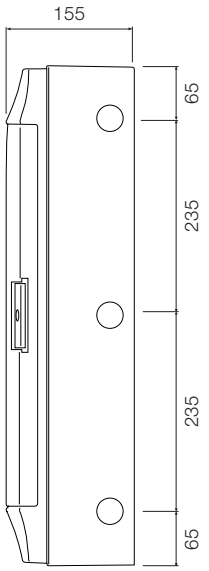


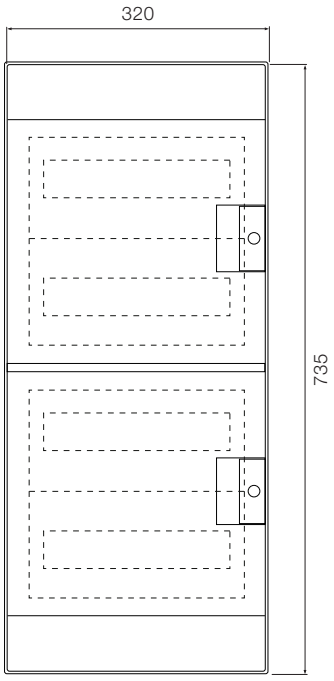



36 modules

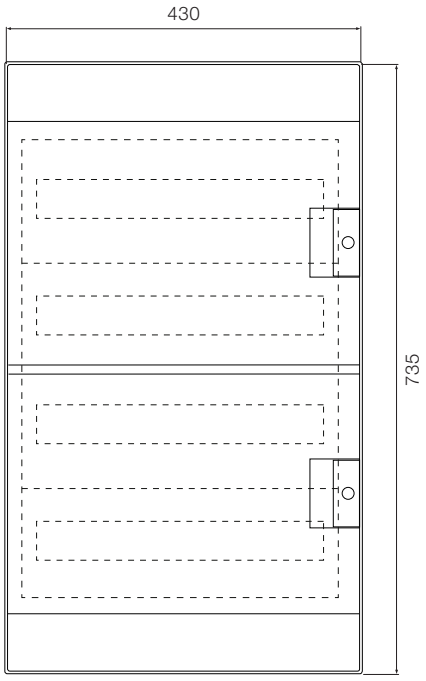



54 modules

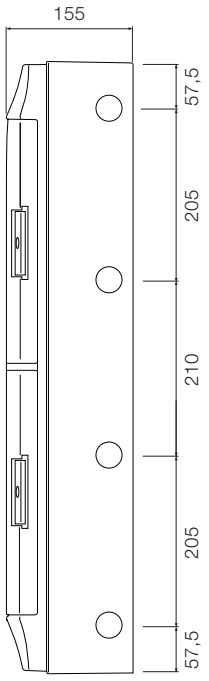



48 modules



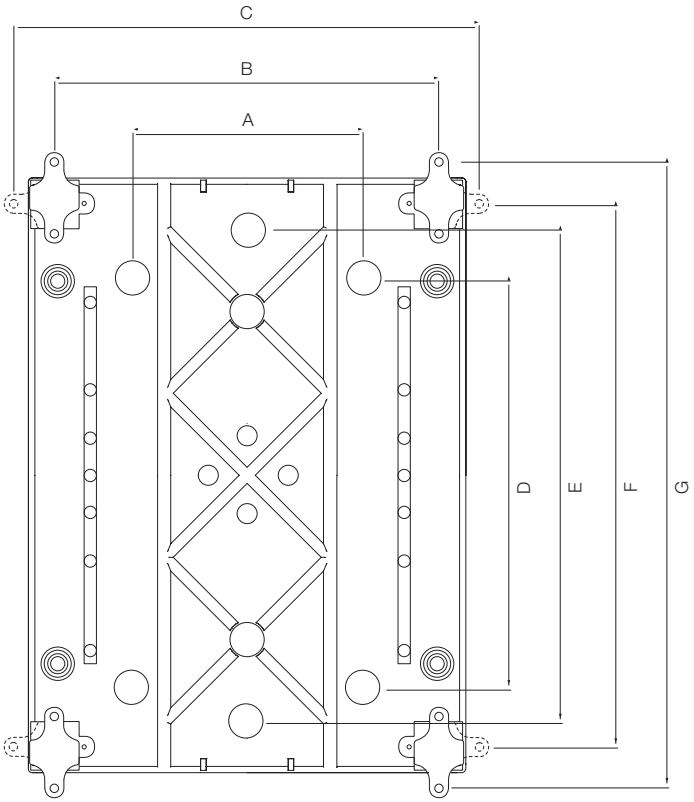

72 modules



# Quick product references
# Overall dimensions

## System pro *E* comfort MISTRAL65

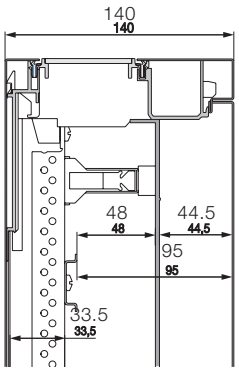
### Consumer unit fixing template



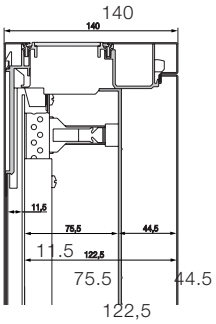

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| **4 Modules** | | 113 | 173 | | 140 | 163 | 223,5 |
| **8 Modules** | 90 | 194 | 254,5 | 180 | | 212 | 272,5 |
| **12 Modules** | 170 | 282,5 | 343 | 180 | | 212 | 272,5 |
| **18 Modules** | 280 | 392 | 452,5 | 125 | 175 | 212 | 272,5 |
| **24 Modules** | 170 | 282,5 | 343 | 310 | 360 | 397 | 457,5 |
| **36 Modules - 2 F** | 280 | 392 | 452,5 | 310 | 360 | 397 | 457,5 |
| **36 Modules - 3 F** | 170 | 282,5 | 343 | 475 | 525 | 562 | 622,5 |
| **48 Modules** | 170 | 282,5 | 343 | 610 | 660 | 697 | 757,5 |
| **54 Modules** | 280 | 392 | 452,5 | 475 | 525 | 562 | 622,5 |
| **72 Modules** | 280 | 392 | 452,5 | 610 | 660 | 697 | 757,5 |

## AT/U Series

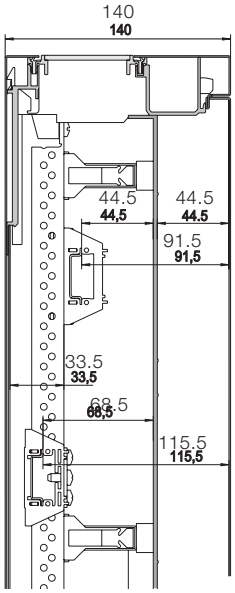
### Wall-mounting with door, AT series




Compact distribution board panel

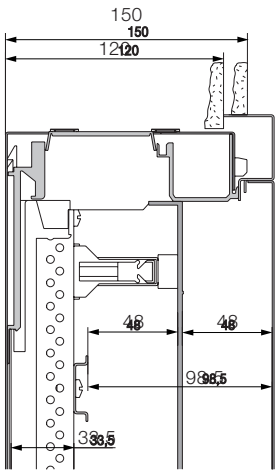



Panel with mounting plate

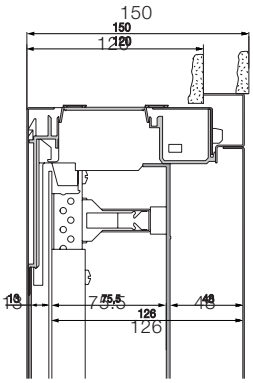



Panel for terminals

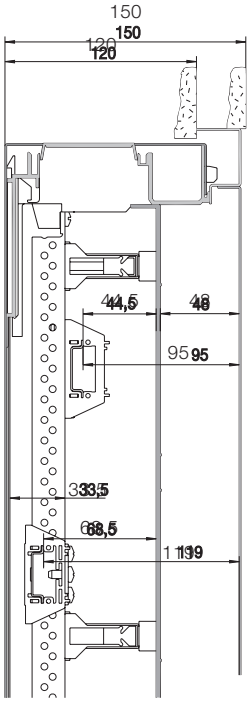
### Flush-mounting with door, U series




Compact distribution board panel




Panel with mounting plate



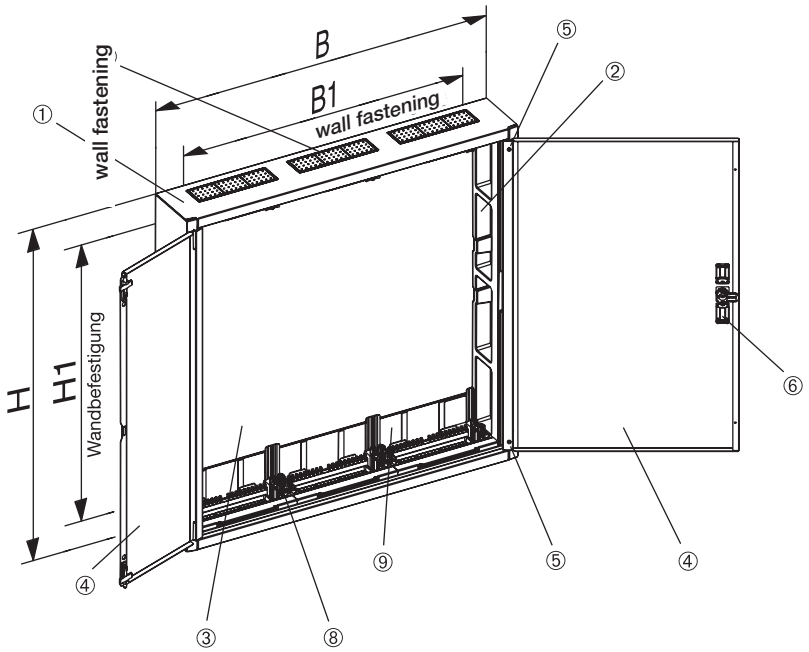

Panel for terminals

# Quick product references
# Overall dimensions

## Compact distribution boards

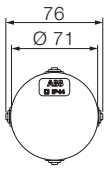
| Type | H | W | H1 | W1 |
|---|---|---|---|---|
| AT22E | 374 | 574 | 235 | 417 |
| AT31 | 524 | 324 | 385 | 167 |
| AT32, AT32TE, AT32R2, AT32TR2 | 524 | 574 | 385 | 417 |
| AT41, AT41TE, AT41R3, AT41TR3 | 674 | 324 | 535 | 167 |
| AT42, AT42TE, AT42M, AT42/2, AT42R3, AT42TR3 | 674 | 574 | 535 | 417 |
| AT43, AT43R3, AT43TR3 | 674 | 824 | 535 | 667 |
| AT51, AT51TE, AT51R4, AT51TR4 | 824 | 324 | 685 | 167 |
| AT52, AT52TE, AT52K, AT52/2, AT52R4, AT52TR4 | 824 | 574 | 685 | 417 |
| AT53, AT53M,AT53K, AT53R4, AT53TR4 | 824 | 824 | 685 | 667 |
| AT54K, AK54E, AT54R4 | 824 | 1074 | 685 | 917 |
| AT61, AT61TE, AT61R5, AT61TR5 | 974 | 324 | 835 | 167 |
| AT62, AT62TE, AT62K, AT62R5, AT62TR5 | 974 | 574 | 835 | 417 |
| AT63E, AT63K, AT63R5, AT63TR5 | 974 | 824 | 835 | 667 |
| AT64K | 974 | 1074 | 835 | 917 |
| AT72, AT72K, AT72R6, AT72TR6 | 1124 | 574 | 985 | 417 |
| AT73K, AT73R6, AT73TR6 | 1124 | 824 | 985 | 667 |

Dimensions in mm

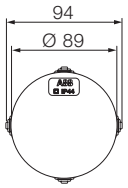


## IP44, IP55 and IP65 junction boxes

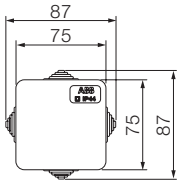
### Front view



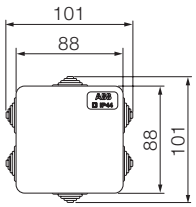

00 800
1SL0900A00



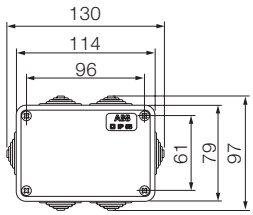

00 802
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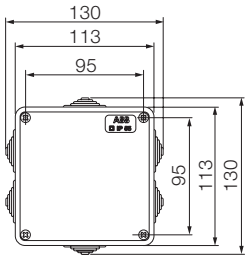

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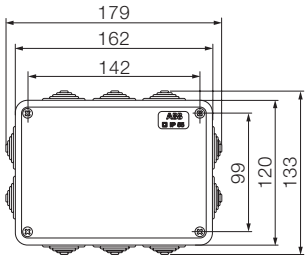

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1SL0903A00



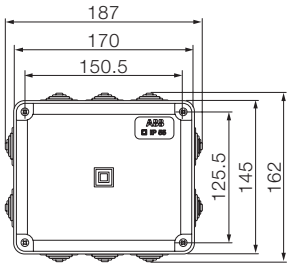

00 820
00 850
1SL0820A00
1SL0850A00
1SL0905A00
1SL0909A00
1SL0920A00
1SL0950A00



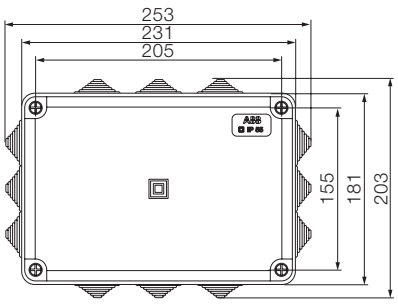

| | |
|---|---|
| 00 816 | 1SL0904A00 |
| 00 821 | 1SL0906A00 |
| 00 846 | 1SL0908A00 |
| 00 851 | 1SL0910A00 |
| 1SL0816A00 | 1SL0916A00 |
| 1SL0821A00 | 1SL0921A00 |
| 1SL0846A00 | 1SL0946A00 |
| 1SL0851A00 | 1SL0951A00 |



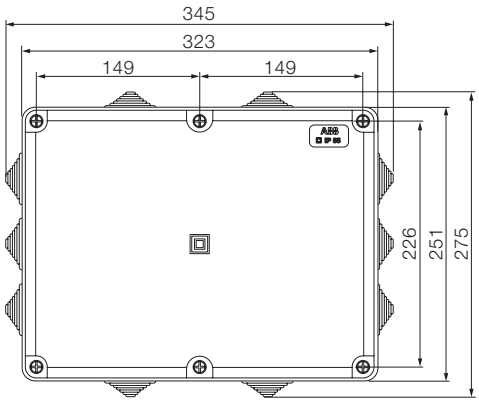

| | |
|---|---|
| 00 822 | 1SL0907A00 |
| 00 852 | 1SL0911A00 |
| 00 872 | 1SL0912A00 |
| 1SL0822A00 | 1SL0922A00 |
| 1SL0852A00 | 1SL0972A00 |
| 1SL0872A00 | 1SL0985A00 |




| | |
|---|---|
| 1SL0824A00 | 1SL0924A00 |
| 1SL0830A00 | 1SL0930A00 |
| 1SL0854A00 | 1SL0954A00 |
| 1SL0860A00 | 1SL0960A00 |
| 1SL0874A00 | 1SL0974A00 |
| 1SL0880A00 | 1SL0980A00 |




| | |
|---|---|
| 1SL0826A00 | 1SL0926A00 |
| 1SL0832A00 | 1SL0932A00 |
| 1SL0856A00 | 1SL0956A00 |
| 1SL0862A00 | 1SL0962A00 |
| 1SL0876A00 | 1SL0976A00 |
| 1SL0884A00 | 1SL0984A00 |



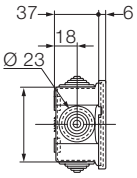

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# Quick product references
# Overall dimensions

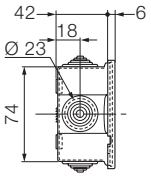
## IP44, IP55 and IP65 junction boxes

### Side view

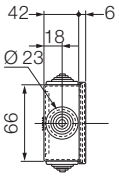




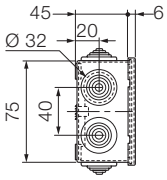

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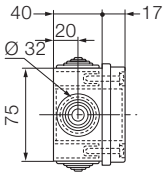

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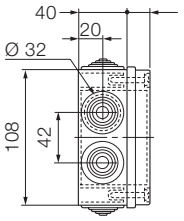

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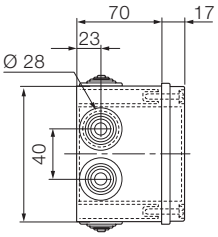

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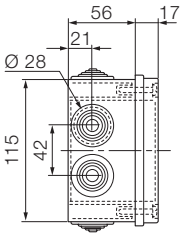

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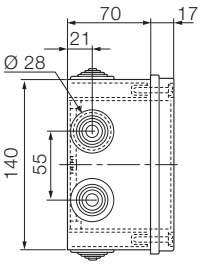

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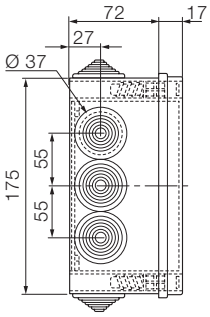

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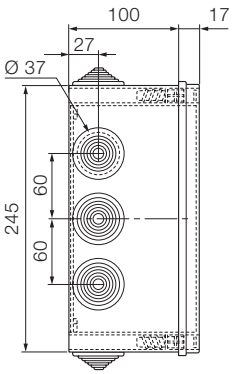

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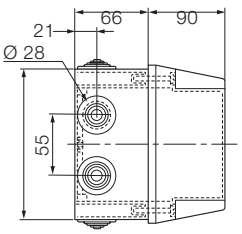

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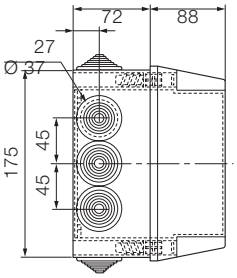

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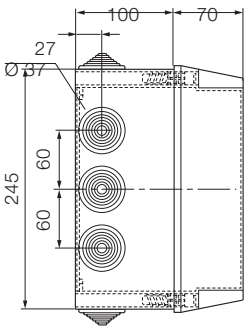

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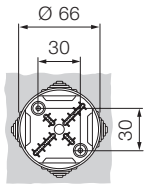



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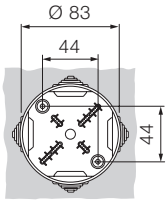



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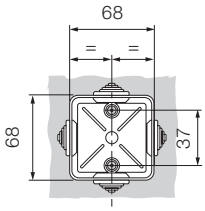
## Drilling sheets and internal dimensions



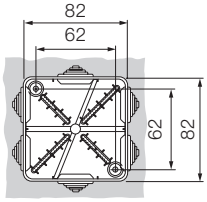

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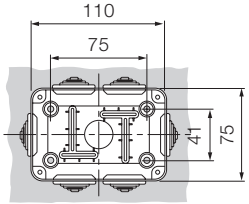

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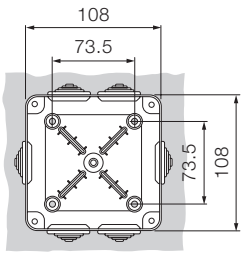

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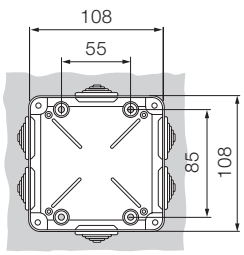

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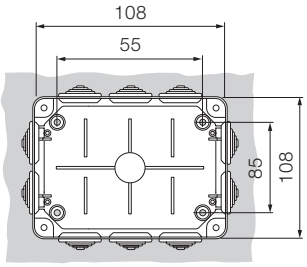

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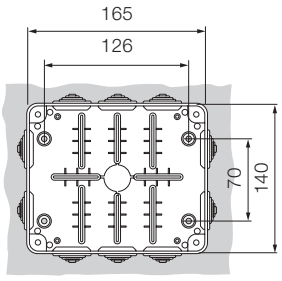

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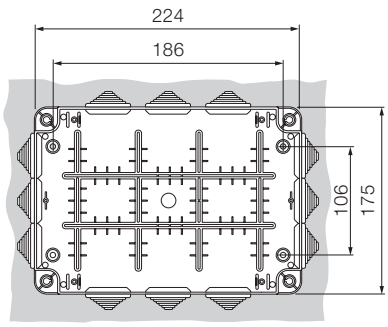

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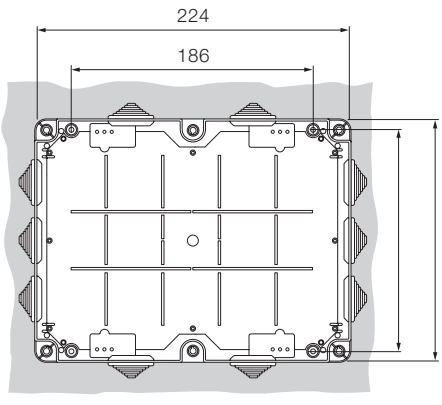

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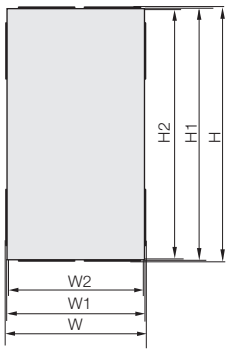



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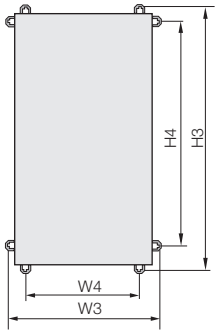
# Quick product references
# Overall dimensions

## TwinLine S 43

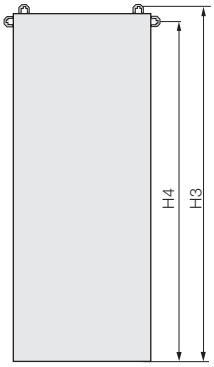
**Front view**
**Wall-mounting and floor-standing cabinet**
**External/internal dimensions**



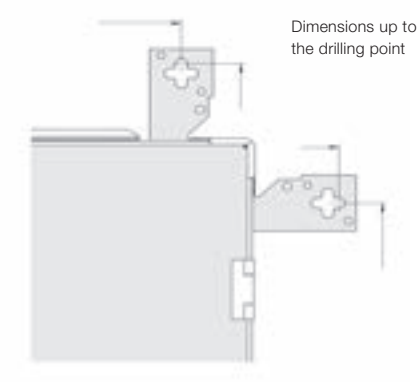

**Front view**
**Wall-mounting cabinet**
**Wall fastening dimensions**




**Front view**
**Floor-standing cabinet**
**Wall fastening dimensions**



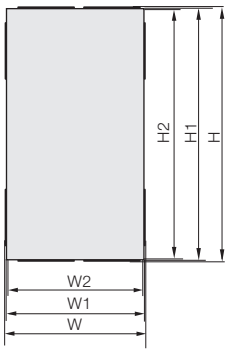

**Front view**
**External fastening**
**Detail**



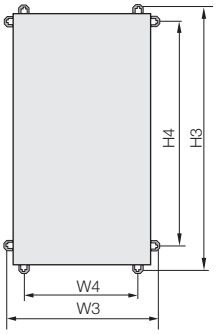

| Cabinet types H x W x D | External dimensions in mm | | | Internal dimensions in mm | | External dimensions with embossing in mm | | Wall fastening dimensions in mm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | H1 | W1 | D1 | H2 | W2 | H | W | H3 | W3 | H4 | W4 |
| 400 x 300 x 225 | 450 | 390 | 225 | 402 | 342 | 454 | 394 | 578.5 | 518.5 | 345 | 285 |
| 600 x 300 x 225 | 650 | 390 | 225 | 602 | 342 | 654 | 394 | 778.5 | 518.5 | 545 | 285 |
| 800 x 300 x 225 | 850 | 390 | 225 | 802 | 342 | 854 | 394 | 978.5 | 518.5 | 745 | 285 |
| 1000 x 300 x 225 | 1050 | 390 | 225 | 1002 | 342 | 1054 | 394 | 1178.5 | 518.5 | 945 | 285 |
| 1200 x 300 x 225 | 1250 | 390 | 225 | 1202 | 342 | 1254 | 394 | 1378.5 | 518.5 | 1145 | 285 |
| 1400 x 300 x 225 | 1450 | 390 | 225 | 1402 | 342 | 1454 | 394 | 1514 | 518.5 | 1292.5 | 285 |
| 1600 x 300 x 225 | 1650 | 390 | 225 | 1602 | 342 | 1654 | 394 | 1714 | 518.5 | 1492.5 | 285 |
| 1800 x 300 x 225 | 1850 | 390 | 225 | 1802 | 342 | 1854 | 394 | 1914 | 518.5 | 1692.5 | 285 |
| 2000 x 300 x 225 | 2050 | 390 | 225 | 2002 | 342 | 2054 | 394 | 2114 | 518.5 | 1892.5 | 285 |
| 400 x 600 x 225 | 450 | 660 | 225 | 402 | 612 | 454 | 664 | 578.5 | 788.5 | 345 | 555 |
| 600 x 600 x 225 | 650 | 660 | 225 | 602 | 612 | 654 | 664 | 778.5 | 788.5 | 545 | 555 |
| 800 x 600 x 225 | 850 | 660 | 225 | 802 | 612 | 854 | 664 | 978.5 | 788.5 | 745 | 555 |
| 1000 x 600 x 225 | 1050 | 660 | 225 | 1002 | 612 | 1054 | 664 | 1178.5 | 788.5 | 945 | 555 |
| 1200 x 600 x 225 | 1250 | 660 | 225 | 1202 | 612 | 1254 | 664 | 1378.5 | 788.5 | 1145 | 555 |
| 1400 x 600 x 225 | 1450 | 660 | 225 | 1402 | 612 | 1454 | 664 | 1514 | 788.5 | 1292.5 | 555 |
| 1600 x 600 x 225 | 1650 | 660 | 225 | 1602 | 612 | 1654 | 664 | 1714 | 788.5 | 1492.5 | 555 |
| 1800 x 600 x 225 | 1850 | 660 | 225 | 1802 | 612 | 1854 | 664 | 1914 | 788.5 | 1692.5 | 555 |
| 2000 x 600 x 225 | 2050 | 660 | 225 | 2002 | 612 | 2054 | 664 | 2114 | 788.5 | 1892.5 | 555 |
| 400 x 800 x 225 | 450 | 875 | 225 | 402 | 827 | 454 | 879 | 578.5 | 1003.5 | 345 | 770 |
| 600 x 800 x 225 | 650 | 875 | 225 | 602 | 827 | 654 | 879 | 778.5 | 1003.5 | 545 | 770 |
| 800 x 800 x 225 | 850 | 875 | 225 | 802 | 827 | 854 | 879 | 978.5 | 1003.5 | 745 | 770 |
| 1000 x 800 x 225 | 1050 | 875 | 225 | 1002 | 827 | 1054 | 879 | 1178.5 | 1003.5 | 945 | 770 |
| 1200 x 800 x 225 | 1250 | 875 | 225 | 1202 | 827 | 1254 | 879 | 1378.5 | 1003.5 | 1145 | 770 |
| 1400 x 800 x 225 | 1450 | 875 | 225 | 1402 | 827 | 1454 | 879 | 1514 | 1003.5 | 1292.5 | 770 |
| 1600 x 800 x 225 | 1650 | 875 | 225 | 1602 | 827 | 1654 | 879 | 1714 | 1003.5 | 1492.5 | 770 |
| 1800 x 800 x 225 | 1850 | 875 | 225 | 1802 | 827 | 1854 | 879 | 1914 | 1003.5 | 1692.5 | 770 |
| 2000 x 800 x 225 | 2050 | 875 | 225 | 2002 | 827 | 2054 | 879 | 2114 | 1003.5 | 1892.5 | 770 |

## TwinLine S 43

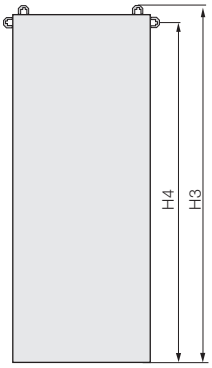
Front view
Wall-mounting and floor-standing cabinet
External/internal dimensions



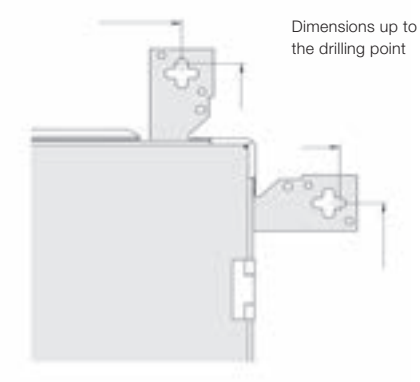

Front view
Wall-mounting cabinet
Wall fastening dimensions




Front view
Floor-standing cabinet
Wall fastening dimensions




Front view
External fastening
Detail

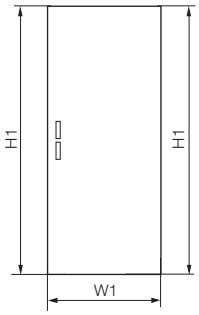



| Cabinet types H x W x D | External dimensions in mm | | | Internal dimensions in mm | | External dimensions with embossing in mm | | Wall fastening dimensions in mm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | H1 | W1 | D1 | H2 | W2 | H | W | H3 | W3 | H4 | W4 |
| 400 x 300 x 275 | 450 | 390 | 275 | 402 | 342 | 454 | 394 | 578.5 | 518.5 | 345 | 285 |
| 600 x 300 x 275 | 650 | 390 | 275 | 602 | 342 | 654 | 394 | 778.5 | 518.5 | 545 | 285 |
| 800 x 300 x 275 | 850 | 390 | 275 | 802 | 342 | 854 | 394 | 978.5 | 518.5 | 745 | 285 |
| 1000 x 300 x 275 | 1050 | 390 | 275 | 1002 | 342 | 1054 | 394 | 1178.5 | 518.5 | 945 | 285 |
| 1200 x 300 x 275 | 1250 | 390 | 275 | 1202 | 342 | 1254 | 394 | 1378.5 | 518.5 | 1145 | 285 |
| 1400 x 300 x 275 | 1450 | 390 | 275 | 1402 | 342 | 1454 | 394 | 1514 | 518.5 | 1292.5 | 285 |
| 1600 x 300 x 275 | 1650 | 390 | 275 | 1602 | 342 | 1654 | 394 | 1714 | 518.5 | 1492.5 | 285 |
| 1800 x 300 x 275 | 1850 | 390 | 275 | 1802 | 342 | 1854 | 394 | 1914 | 518.5 | 1692.5 | 285 |
| 2000 x 300 x 275 | 2050 | 390 | 275 | 2002 | 342 | 2054 | 394 | 2114 | 518.5 | 1892.5 | 285 |
| 400 x 600 x 275 | 450 | 660 | 275 | 402 | 612 | 454 | 664 | 578.5 | 788.5 | 345 | 555 |
| 600 x 600 x 275 | 650 | 660 | 275 | 602 | 612 | 654 | 664 | 778.5 | 788.5 | 545 | 555 |
| 800 x 600 x 275 | 850 | 660 | 275 | 802 | 612 | 854 | 664 | 978.5 | 788.5 | 745 | 555 |
| 1000 x 600 x 275 | 1050 | 660 | 275 | 1002 | 612 | 1054 | 664 | 1178.5 | 788.5 | 945 | 555 |
| 1200 x 600 x 275 | 1250 | 660 | 275 | 1202 | 612 | 1254 | 664 | 1378.5 | 788.5 | 1145 | 555 |
| 1400 x 600 x 275 | 1450 | 660 | 275 | 1402 | 612 | 1454 | 664 | 1514 | 788.5 | 1292.5 | 555 |
| 1600 x 600 x 275 | 1650 | 660 | 275 | 1602 | 612 | 1654 | 664 | 1714 | 788.5 | 1492.5 | 555 |
| 1800 x 600 x 275 | 1850 | 660 | 275 | 1802 | 612 | 1854 | 664 | 1914 | 788.5 | 1692.5 | 555 |
| 2000 x 600 x 275 | 2050 | 660 | 275 | 2002 | 612 | 2054 | 664 | 2114 | 788.5 | 1892.5 | 555 |
| 400 x 800 x 275 | 450 | 875 | 275 | 402 | 827 | 454 | 879 | 578.5 | 1003.5 | 345 | 770 |
| 600 x 800 x 275 | 650 | 875 | 275 | 602 | 827 | 654 | 879 | 778.5 | 1003.5 | 545 | 770 |
| 800 x 800 x 275 | 850 | 875 | 275 | 802 | 827 | 854 | 879 | 978.5 | 1003.5 | 745 | 770 |
| 1000 x 800 x 275 | 1050 | 875 | 275 | 1002 | 827 | 1054 | 879 | 1178.5 | 1003.5 | 945 | 770 |
| 1200 x 800 x 275 | 1250 | 875 | 275 | 1202 | 827 | 1254 | 879 | 1378.5 | 1003.5 | 1145 | 770 |
| 1400 x 800 x 275 | 1450 | 875 | 275 | 1402 | 827 | 1454 | 879 | 1514 | 1003.5 | 1292.5 | 770 |
| 1600 x 800 x 275 | 1650 | 875 | 275 | 1602 | 827 | 1654 | 879 | 1714 | 1003.5 | 1492.5 | 770 |
| 1800 x 800 x 275 | 1850 | 875 | 275 | 1802 | 827 | 1854 | 879 | 1914 | 1003.5 | 1692.5 | 770 |
| 2000 x 800 x 275 | 2050 | 875 | 275 | 2002 | 827 | 2054 | 879 | 2114 | 1003.5 | 1892.5 | 770 |

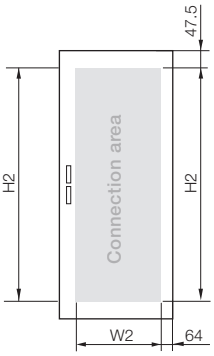
# Quick product references
# Overall dimensions

## TwinLine S 43

External dimensions



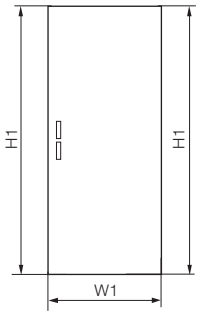

Dimensions of usable connection area



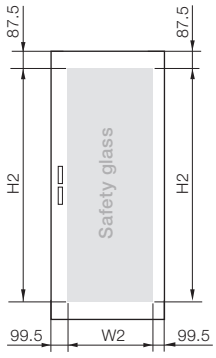

| Sheet steel doors | External dimensions Height x width in mm | | Internal dimensions Height x width in mm | | Weight | max. installation weight |
|---|---|---|---|---|---|---|
| Type | H1 | W1 | H2 | W2 | in kg | in kg |
| ESAS0304 | 443 | 379 | 348 | 213 | 4.75 | 5 |
| ESAS0306 | 643 | 379 | 548 | 213 | 6.62 | 5 |
| ESAS0308 | 843 | 379 | 748 | 213 | 7.81 | 5 |
| ESAS0310 | 1043 | 379 | 948 | 213 | 9.72 | 5 |
| ESAS0312 | 1243 | 379 | 1148 | 213 | 11.49 | 5 |
| ESAS0314 | 1443 | 379 | 1348 | 213 | 13.50 | 5 |
| ESAS0316 | 1643 | 379 | 1548 | 213 | 15.05 | 5 |
| ESAS0318 | 1843 | 379 | 1748 | 213 | 16.58 | 5 |
| ESAS0320 | 2043 | 379 | 1948 | 213 | 18.14 | 5 |
| ESAS0604 | 443 | 649 | 348 | 483 | 6.95 | 5 |
| ESAS0606 | 643 | 649 | 548 | 483 | 9.46 | 5 |
| ESAS0608 | 843 | 649 | 748 | 483 | 11.64 | 5 |
| ESAS0610 | 1043 | 649 | 948 | 483 | 13.83 | 5 |
| ESAS0612 | 1243 | 649 | 1148 | 483 | 16.24 | 5 |
| ESAS0614 | 1443 | 649 | 1348 | 483 | 18.88 | 5 |
| ESAS0616 | 1643 | 649 | 1548 | 483 | 21.07 | 5 |
| ESAS0618 | 1843 | 649 | 1748 | 483 | 23.25 | 5 |
| ESAS0620 | 2043 | 649 | 1948 | 483 | 25.43 | 5 |
| ESAS0804 | 443 | 864 | 348 | 698 | 8.70 | 7.5 |
| ESAS0806 | 643 | 864 | 548 | 698 | 11.72 | 7.5 |
| ESAS0808 | 843 | 864 | 748 | 698 | 14.41 | 7.5 |
| ESAS0810 | 1043 | 864 | 948 | 698 | 17.10 | 7.5 |
| ESAS0810 | 1243 | 864 | 1148 | 698 | 20.02 | 7.5 |
| ESAS0814 | 1443 | 864 | 1348 | 698 | 23.17 | 7.5 |
| ESAS0816 | 1643 | 864 | 1548 | 698 | 25.86 | 7.5 |
| ESAS0818 | 1843 | 864 | 1748 | 698 | 28.54 | 7.5 |
| ESAS0820 | 2043 | 864 | 1948 | 698 | 31.23 | 7.5 |

## TwinLine S 43

External dimensions




Dimensions of viewing area

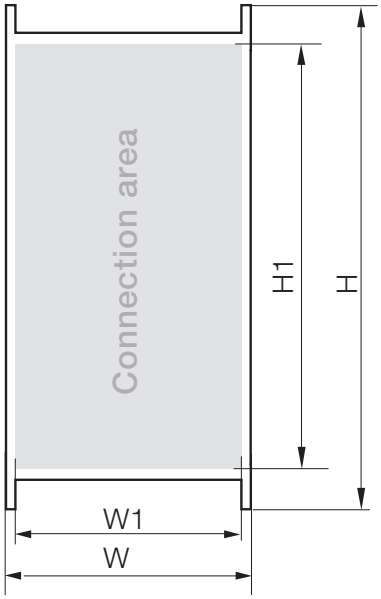



| Transparent doors | External dimensions Height x width in mm | | Viewing area Height x width in mm | | Weight |
|---|---|---|---|---|---|
| Type | H1 | W1 | H2 | W2 | in kg |
| ESAT0606 | 643 | 649 | 468 | 450 | 9.63 |
| ESAT0608 | 843 | 649 | 668 | 450 | 11.67 |
| ESAT0610 | 1043 | 649 | 868 | 450 | 13.7 |
| ESAT0612 | 1243 | 649 | 1068 | 450 | 15.96 |
| ESAT0614 | 1443 | 649 | 1268 | 450 | 18.36 |
| ESAT0616 | 1643 | 649 | 1468 | 450 | 20.4 |
| ESAT0618 | 1843 | 649 | 1668 | 450 | 22.43 |
| ESAT0620 | 2043 | 649 | 1868 | 450 | 24.46 |
| ESAT0806 | 643 | 864 | 468 | 665 | 11.85 |
| ESAT0808 | 843 | 864 | 668 | 665 | 14.3 |
| ESAT0810 | 1043 | 864 | 868 | 665 | 16.74 |
| ESAT0812 | 1243 | 864 | 1068 | 665 | 19.4 |
| ESAT0814 | 1443 | 864 | 1268 | 665 | 22.23 |
| ESAT0816 | 1643 | 864 | 1468 | 665 | 24.67 |
| ESAT0818 | 1843 | 864 | 1668 | 665 | 27.12 |
| ESAT0820 | 2043 | 864 | 1868 | 665 | 29.56 |
| ESAT2606 | 643 | 864 | 468 | 450 | 11.66 |
| ESAT2608 | 843 | 864 | 668 | 450 | 14.2 |
| ESAT2610 | 1043 | 864 | 868 | 450 | 16.47 |
| ESAT2612 | 1243 | 864 | 1068 | 450 | 19.5 |
| ESAT2614 | 1443 | 864 | 1268 | 450 | 22.42 |
| ESAT2616 | 1643 | 864 | 1468 | 450 | 24.96 |
| ESAT2618 | 1843 | 864 | 1668 | 450 | 27.5 |
| ESAT2620 | 2043 | 864 | 1868 | 450 | 30 |

# Quick product references
# Overall dimensions

## TwinLine S 43 mounting plate

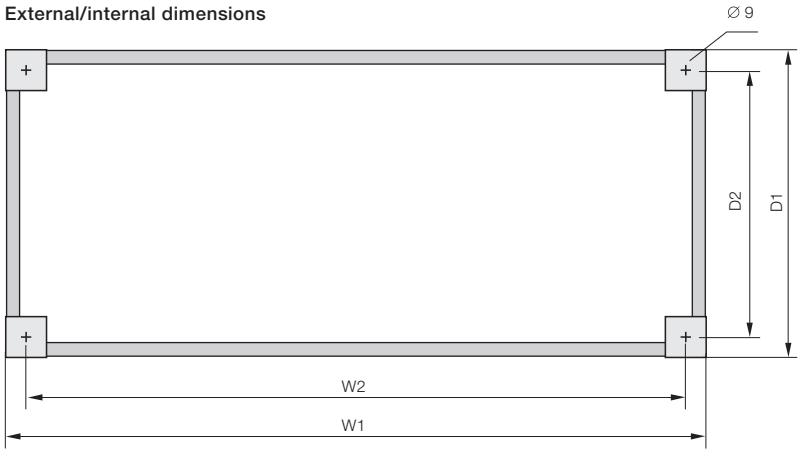
**External dimensions / Usable connection area**
**Mounting plate**



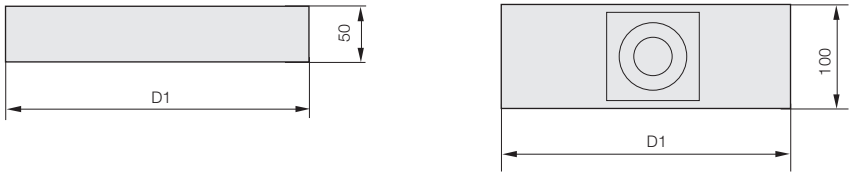

| Type | External dimensions Width x depth in mm H | W | Internal dimensions Width x depth in mm H1 | W1 | Weight in kg |
|---|---|---|---|---|---|
| TZM204 | 600 | 496 | 522 | 410 | 3.51 |
| TZM304 | 600 | 746 | 522 | 660 | 8.07 |
| TZM208 | 1200 | 496 | 1122 | 410 | 11.82 |
| TZM308 | 1200 | 746 | 1122 | 660 | 16.45 |
| RM28 | 1800 | 496 | 1722 | 410 | 17.8 |
| RM38 | 1800 | 746 | 1722 | 660 | 21 |

## TwinLine S 43 plinth

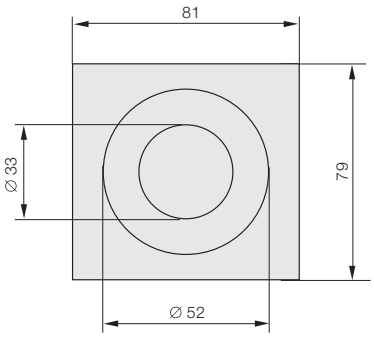
External/internal dimensions




View side knockout
TwinLine-G and -L



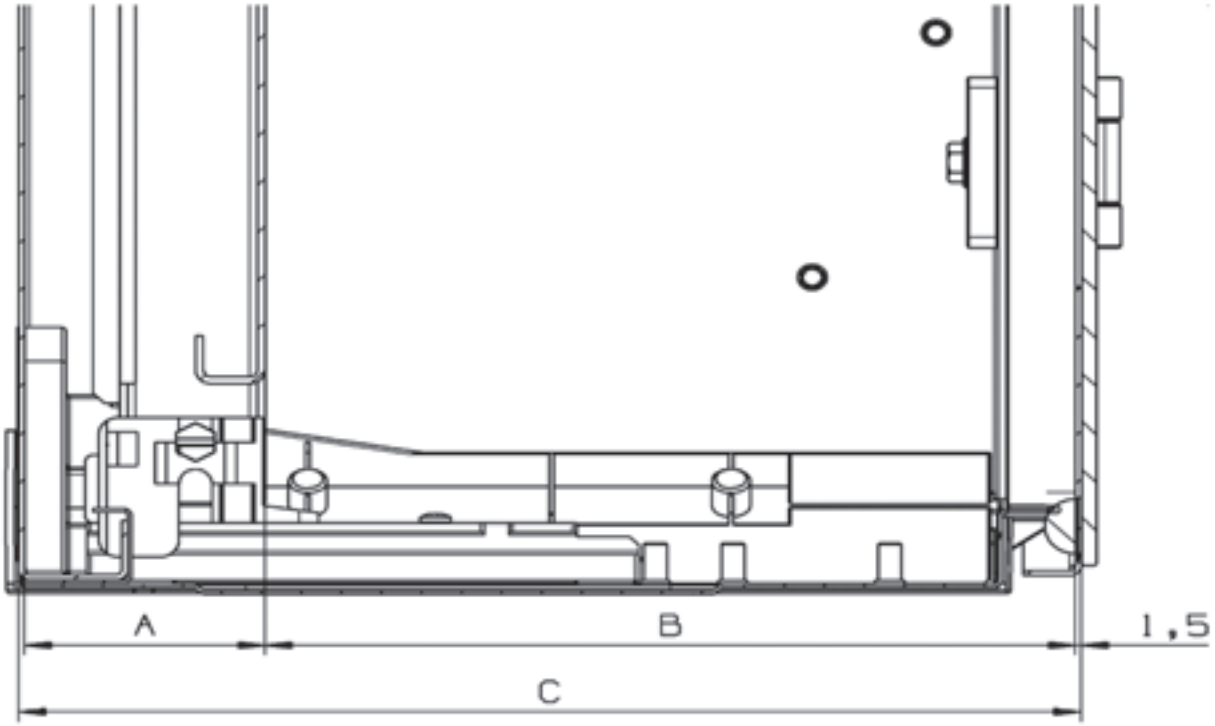

Detail view for
side knockout




| Type | External dimensions Width x depth in mm W1 | D1 | Internal dimensions Width x depth in mm W2 | D2 | Weight in kg |
|---|---|---|---|---|---|
| **Plinth height 50 mm** | | | | | |
| ESAL0305 | 390 | 253.5 | 360 | 223.5 | 1.57 |
| ESAL0605 | 660 | 253.5 | 630 | 223.5 | 2.10 |
| ESAL0805 | 875 | 253.5 | 845 | 223.5 | 2.53 |
| ESAG0305 | 390 | 203.5 | 360 | 173.5 | 1.44 |
| ESAG0605 | 660 | 203.5 | 630 | 173.5 | 1.98 |
| ESAG0805 | 875 | 203.5 | 845 | 173.5 | 2.41 |
| **Plinth height 100 mm** | | | | | |
| ESAL0310 | 390 | 253.5 | 360 | 223.5 | 2.59 |
| ESAL0610 | 660 | 253.5 | 630 | 223.5 | 3.45 |
| ESAL0810 | 875 | 253.5 | 845 | 223.5 | 4.13 |
| ESAG0310 | 390 | 203.5 | 360 | 173.5 | 2.41 |
| ESAG0610 | 660 | 203.5 | 630 | 173.5 | 3.27 |
| ESAG0810 | 875 | 203.5 | 845 | 173.5 | 3.95 |

# Quick product references
# Overall dimensions

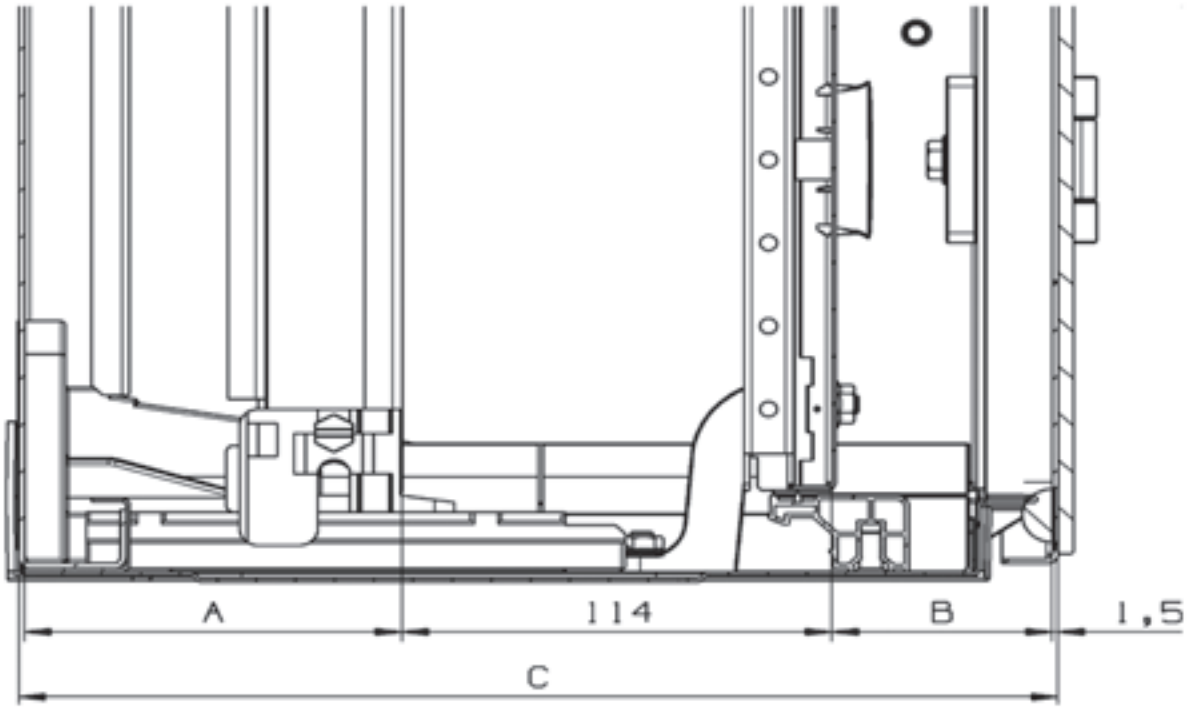
## TwinLine S 43 Side view assembly with mounting plate





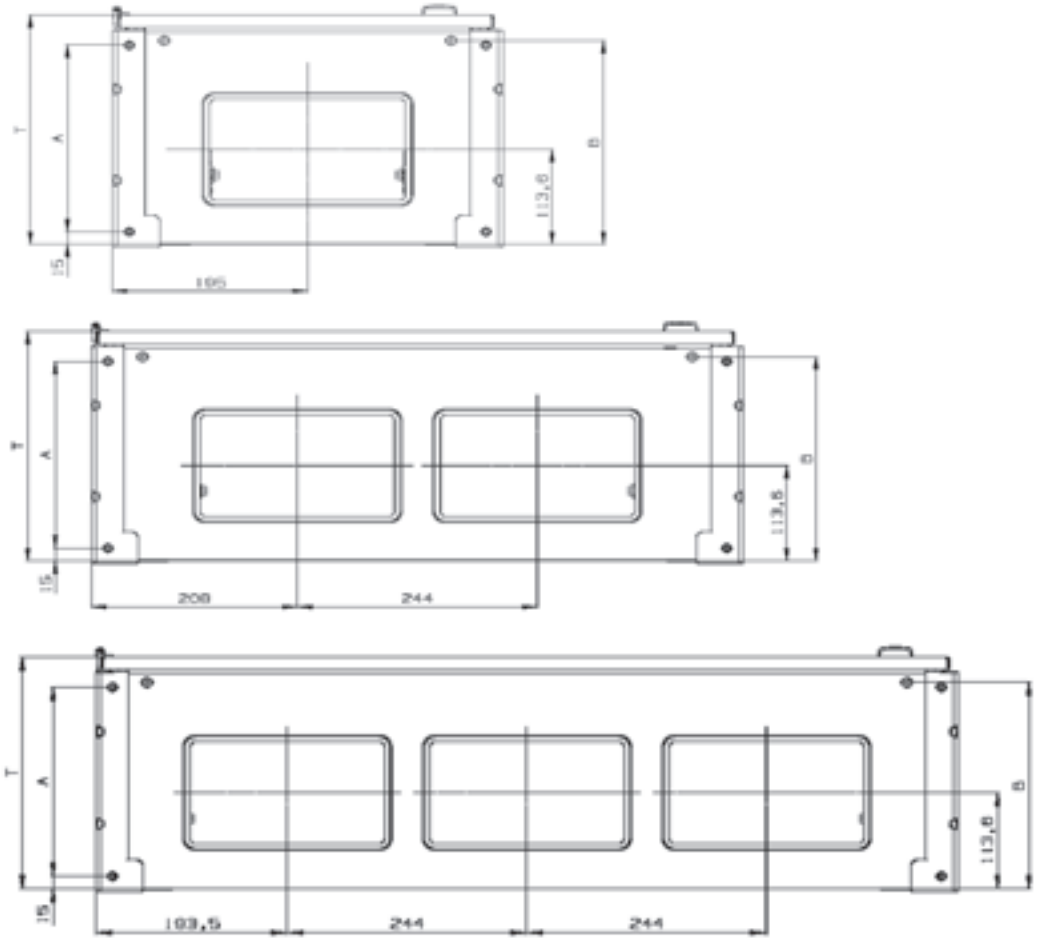

| Cabinet series | Depth (C) in mm | A in mm for installation position | | | | | |
|---|---|---|---|---|---|---|---|
| | | Pos 3 | Pos 2 | Pos 1 | Pos 0 | Pos -1 | Pos -2 |
| TwinLine G | 225 | 63 | 75.5 | 88 | 100.5 | 113 | 125.5 |
| TwinLine L | 275 | 63 | 75.5 | 88 | 100.5 | 113 | 125.5 |
| **Cabinet series** | **Depth (C) in mm** | **B in mm for installation position** | | | | | |
| TwinLine G | 225 | 159 | 146.5 | 134 | 121.5 | 109 | 96.5 |
| TwinLine L | 275 | 209 | 196.5 | 184 | 171.5 | 159 | 146.5 |

## TwinLine S 43 Side view with FlexiLIne for 225 mm und 275 mm depth




| | Depth (C) in mm | A in mm | B in mm |
|---|---|---|---|
| TwinLine G | 225 | 62 | 46 |
| TwinLine L | 275 | 100 | 58 |

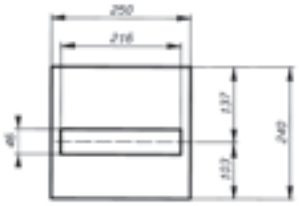
# Quick product references
## Overall dimensions




| Depth in mm | A in mm | B in mm |
|---|---|---|
| 225 | 173.5 | 170 |
| 275 | 223.5 | 244 |

## Modular consumer units AI10N / AI11N

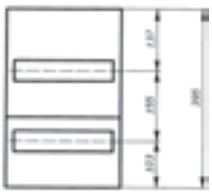
Basic enclosure




Modular enclosure



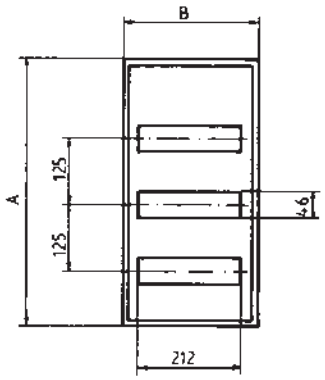

AI10N + AI11N




2-row combination

# Quick product references
# Overall dimensions

## Hood-type consumer units A300




**Allowed power loss hood-type consumer units A300**
**DIN 43871 with over temperature △T***

| Type | Power loss (W) | | |
|---|---|---|---|
| | △T 20 K | △T 25 K | △T 30 K |
| A31... | 12.5 | 16.5 | 21.0 |
| A32... | 15.0 | 20.0 | 25.0 |
| A33... | 17.0 | 22.0 | 28.0 |
| A34... | 20.5 | 27.0 | 34.0 |

*T is the temperature difference between upper temperature rise limit, mounted devices and ambient.

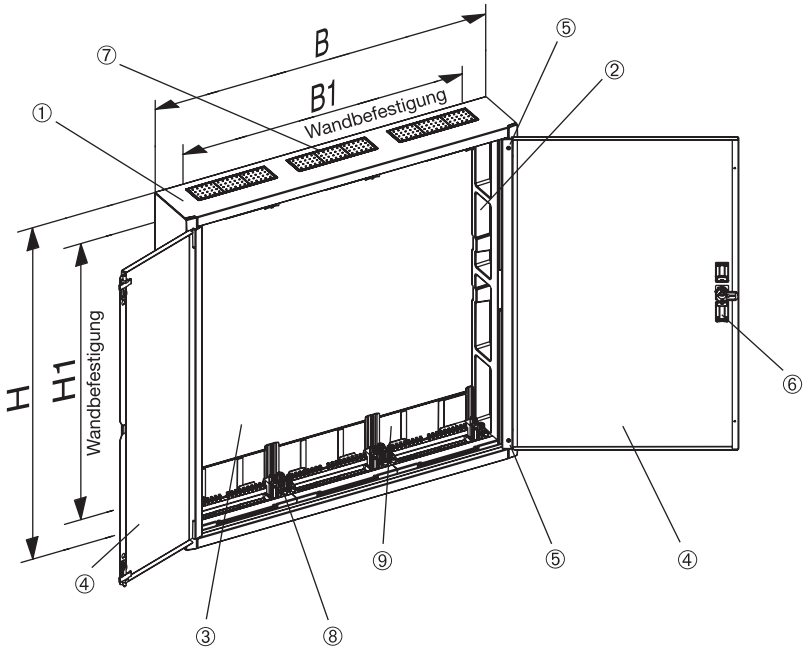



| Type | A | B | C |
|---|---|---|---|
| A31... | 245 | 295 | 110 |
| A32... | 385 | 295 | 110 |
| A33... | 510 | 295 | 110 |
| A34... | 635 | 295 | 110 |

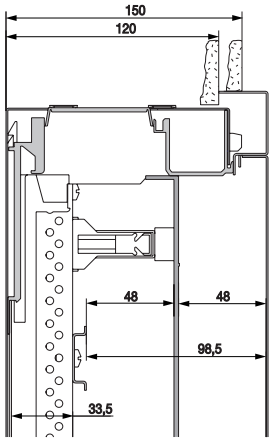
## Compact distribution boards

| Type | H | W | H1 | W1 |
|---|---|---|---|---|
| AT22E, AL22 | 374 | 574 | 235 | 417 |
| AT31, AL31 | 524 | 324 | 385 | 167 |
| AT32, AT32TE, AT32R2, AT32TR2, AL32 | 524 | 574 | 385 | 417 |
| AT41, AT41TE, AT41R3, AT41TR3, AL41 | 674 | 324 | 535 | 167 |
| AT42, AT42TE, AT42M, AT42/2, AT42R3, AT42TR3,AL42 | 674 | 574 | 535 | 417 |
| AT43, AT43R3, AT43TR3, AL43 | 674 | 824 | 535 | 667 |
| AT51, AT51TE, AT51R4, AT51TR4, AL51 | 824 | 324 | 685 | 167 |
| AT52, AT52TE, AT52K, AT52/2, AT52R4, AT52TR4, AL52 | 824 | 574 | 685 | 417 |
| AT53, AT53M,AT53K, AT53R4, AT53TR4, AL53 | 824 | 824 | 685 | 667 |
| AT54K, AK54E, AT54R4, AL54 | 824 | 1074 | 685 | 917 |
| AT61, AT61TE, AT61R5, AT61TR5, AL61 | 974 | 324 | 835 | 167 |
| AT62, AT62TE, AT62K, AT62R5, AT62TR5, AL62 | 974 | 574 | 835 | 417 |
| AT63E, AT63K, AT63R5, AT63TR5, AL63 | 974 | 824 | 835 | 667 |
| AT64K, AL64 | 974 | 1074 | 835 | 917 |
| AT72, AT72K, AT72R6, AT72TR6, AL72 | 1124 | 574 | 985 | 417 |
| AT73K, AT73R6, AT73TR6, AL73 | 1124 | 824 | 985 | 667 |

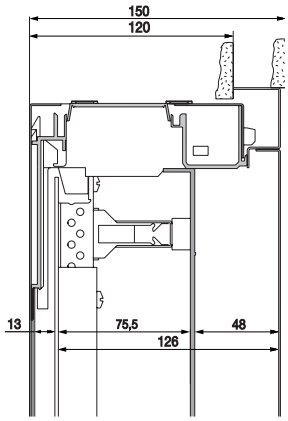
Dimensions in mm



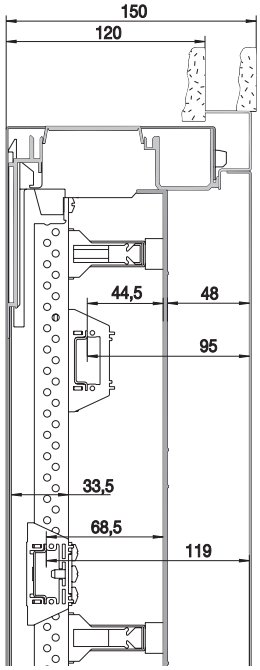
# Quick product references
## Overall dimensions



Distribution board panel



Mounting plate

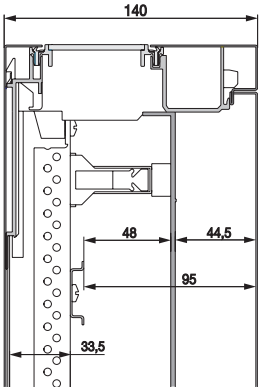


Panel for terminals

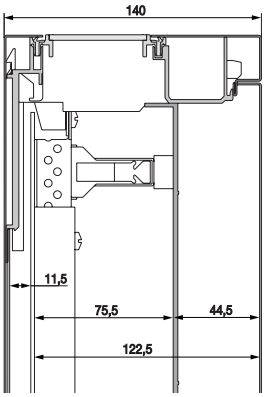
**Flush-mounting with door. U**

| Type | Weight in kg | Power loss in Watts $\Delta t_{1.0}$ 20K |
|---|---|---|
| U32 | 13.50 | 33.10 |
| U32R2 | 13.00 | 33.10 |
| U32TE | 12.50 | 33.10 |
| U32TR2 | 11.00 | 33.10 |
| U41 | 10.50 | 24.30 |
| U41R3 | 10.50 | 24.30 |
| U41TE | 9.00 | 24.30 |
| U41TR3 | 9.50 | 24.30 |
| U42 | 15.50 | 40.10 |
| U42/2 | 16.50 | 40.10 |
| U42D | 16.50 | 40.10 |
| U42FPT | 17.00 | 40.10 |
| U42M | 18.50 | 40.10 |
| U42R3 | 16.00 | 40.10 |
| U42TE | 14.00 | 40.10 |
| U42TR3 | 14.00 | 40.10 |
| U43 | 22.50 | 57.40 |
| U43R3 | 23.00 | 57.40 |
| U43TR3 | 19.50 | 57.40 |
| U51 | 12.50 | 28.40 |
| U51R4 | 12.00 | 28.40 |
| U51TE | 12.00 | 28.40 |
| U51TR4 | 10.50 | 28.40 |
| U52 | 18.50 | 46.30 |
| U52/2 | 19.00 | 46.30 |
| U52K | 18.50 | 46.30 |
| U52R4 | 18.00 | 46.30 |
| U52TE | 16.00 | 46.30 |
| U52TR4 | 16.00 | 46.30 |
| U53 | 26.50 | 65.60 |
| U53K | 26.00 | 65.60 |
| U53M | 29.00 | 65.60 |
| U53R4 | 26.50 | 65.60 |
| U53TR4 | 22.00 | 65.60 |
| U54E | 33.00 | 61.80 |
| U54K | 32.50 | 61.80 |
| U54R4 | 33.50 | 61.80 |
| U61 | 14.50 | 32.90 |
| U61R5 | 14.50 | 32.90 |
| U61TE | 12.50 | 32.90 |
| U61TR5 | 12.50 | 32.90 |
| U62 | 22.00 | 53.10 |
| U62K | 22.00 | 53.10 |
| U62R5 | 22.00 | 53.10 |
| U62TE | 19.00 | 53.10 |
| U62TR5 | 19.00 | 53.10 |
| U63E | 31.00 | 53.30 |
| U63K | 30.50 | 53.30 |
| U63R5 | 31.50 | 53.30 |
| U63TR5 | 26.00 | 53.30 |
| U64K | 38.00 | 68.30 |
| U72 | 25.00 | 59.80 |
| U72K | 25.00 | 59.80 |
| U72R6 | 26.00 | 59.80 |
| U72TR6 | 21.50 | 59.80 |
| U73K | 35.00 | 62.30 |
| U73R6 | 35.50 | 62.30 |
| U73TR6 | 28.50 | 62.30 |

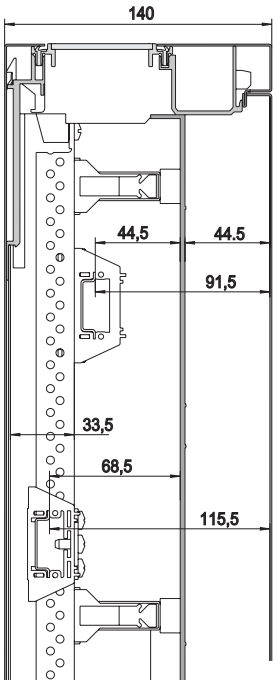
> Dimensions in mm




Distribution board panel




Mounting plate




Panel for terminals

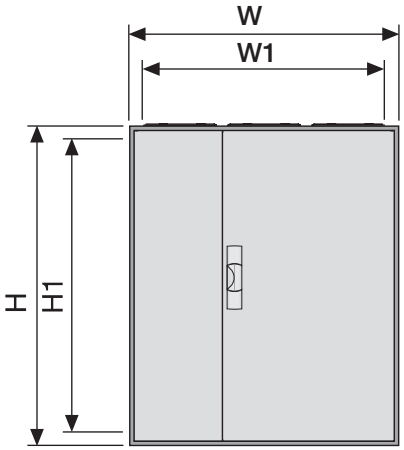
**Wall-mounting with door. AT**

| Type | Weight in kg | Power loss in Watts $\triangle t_{1.0}$ 20K |
|---|---|---|
| AT22E | 9.70 | 36.30 |
| AT31 | 7.50 | 27.30 |
| AT32 | 12.50 | 45.30 |
| AT32R2 | 12.00 | 45.30 |
| AT32TE | 12.00 | 45.30 |
| AT32TR2 | 11.50 | 45.30 |
| AT41 | 9.50 | 33.30 |
| AT41R3 | 10.00 | 33.30 |
| AT41TE | 9.00 | 33.30 |
| AT41TR3 | 9.00 | 33.30 |
| AT42 | 15.00 | 53.90 |
| AT42/2 | 15.50 | 53.90 |
| AT42M | 17.50 | 53.90 |
| AT42R3 | 15.00 | 53.90 |
| AT42TE | 13.00 | 53.90 |
| AT42TR3 | 13.50 | 53.90 |
| AT43 | 21.50 | 76.30 |
| AT43R3 | 21.50 | 76.30 |
| AT43TR3 | 18.00 | 76.30 |
| AT51 | 11.50 | 39.20 |
| AT51R4 | 11.50 | 39.20 |
| AT51TE | 11.50 | 39.20 |
| AT51TR4 | 11.00 | 39.20 |
| AT52 | 17.00 | 62.60 |
| AT52/2 | 18.00 | 62.60 |
| AT52K | 17.50 | 62.60 |
| AT52R4 | 18.00 | 62.60 |
| AT52TE | 18.00 | 62.60 |
| AT52TR4 | 16.00 | 62.60 |
| AT53 | 25.00 | 59.50 |
| AT53K | 25.00 | 59.50 |
| AT53M | 28.00 | 59.50 |
| AT53R4 | 25.50 | 59.50 |
| AT53TR4 | 21.50 | 59.50 |
| AT54E | 32.00 | 85.10 |
| AT54K | 31.00 | 85.10 |
| AT54R4 | 32.50 | 85.10 |
| AT54TR4 | 26.50 | 85.10 |
| AT61 | 13.50 | 45.40 |
| AT61R5 | 13.50 | 45.40 |
| AT61TE | 11.50 | 45.40 |
| AT61TR5 | 12.00 | 45.40 |
| AT62 | 21.00 | 49.60 |
| AT62K | 20.50 | 49.60 |
| AT62R5 | 20.00 | 49.60 |
| AT62TE | 20.00 | 49.60 |
| AT62TR5 | 20.00 | 49.60 |
| AT63E | 29.50 | 70.00 |
| AT63K | 29.00 | 70.00 |
| AT63R5 | 29.00 | 70.00 |
| AT63TR5 | 24.00 | 70.00 |
| AT64K | 36.00 | 100.10 |
| AT72 | 23.50 | 57.30 |
| AT72K | 23.50 | 57.30 |
| AT72R6 | 23.50 | 57.30 |
| AT72TR6 | 20.00 | 57.30 |
| AT73K | 33.50 | 83.60 |
| AT73R6 | 34.00 | 83.60 |
| AT73TR6 | 30.50 | 83.60 |

> Dimensions in mm

# Quick product references
# Overall dimensions

## A wall-mounting cabinets IP43




Door on the right-hand side*

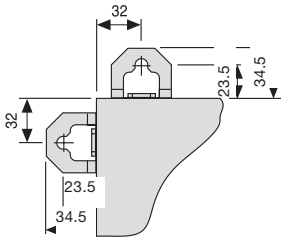
**Depth 215**

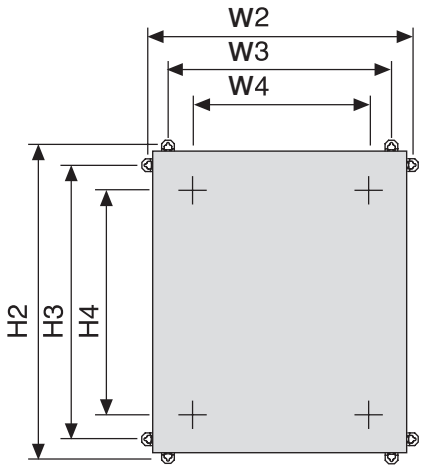
| | | | | | Ext. dimensions | | Int. dimensions | | Door on the left-hand side* | Door on the right-hand side* | Weight | Power loss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | OH | PW | SU | GU | H | W | H1 | W1 | H x W | H x W | in kg | in watts $\triangle t_{i,a}$ 20K |
| 1/00A | 00 | 1 | 36 | 3 | 500 | 300 | 452 | 252 | | 471.4 x 272 | 6.20 | 28.80 |
| 2/00A | | 2 | 72 | | 500 | 550 | 452 | 502 | | 471.4 x 522 | 8.40 | 47.40 |
| 3/00A | | 3 | 108 | | 500 | 800 | 452 | 752 | 471.4 x 260 | 471.4 x 510 | 12.20 | 67.10 |
| 4/00A | | 4 | 144 | | 500 | 1050 | 452 | 1002 | 471.4 x 510 | 471.4 x 510 | 15.80 | 66.20 |
| 5/00A | | 5 | 180 | | 500 | 1300 | 452 | 1252 | 471.4 x 510 | 471.4 x 760 | 19.60 | 83.60 |
| 1/0A | 0 | 1 | 48 | 4 | 650 | 300 | 602 | 252 | | 621.4 x 272 | 7.80 | 35.20 |
| 2/0A | | 2 | 96 | | 650 | 550 | 602 | 502 | | 621.4 x 522 | 11.40 | 56.20 |
| 3/0A | | 3 | 144 | | 650 | 800 | 602 | 752 | 621.4 x 260 | 621.4 x 510 | 15.60 | 59.80 |
| 4/0A | | 4 | 192 | | 650 | 1050 | 602 | 1002 | 621.4 x 510 | 621.4 x 510 | 16.80 | 80.90 |
| 5/0A | | 5 | 240 | | 650 | 1300 | 602 | 1252 | 621.4 x 510 | 621.4 x 760 | 24.00 | 105.60 |
| 1/1A | 1 | 1 | 60 | 5 | 800 | 300 | 752 | 252 | | 771.4 x 272 | 9.80 | 41.60 |
| 2/1A | | 2 | 120 | | 800 | 550 | 752 | 502 | | 771.4 x 522 | 13.40 | 65.30 |
| 3/1A | | 3 | 180 | | 800 | 800 | 752 | 752 | 771.4 x 260 | 771.4 x 510 | 18.00 | 69.70 |
| 4/1A | | 4 | 240 | | 800 | 1050 | 752 | 1002 | 771.4 x 510 | 771.4 x 510 | 23.80 | 96.80 |
| 5/1A | | 5 | 300 | | 800 | 1300 | 752 | 1252 | 771.4 x 510 | 771.4 x 760 | 28.00 | 128.40 |
| 1/2A | 2 | 1 | 72 | 6 | 950 | 300 | 902 | 252 | | 921.4 x 272 | 10.80 | 48.10 |
| 2/2A | | 2 | 144 | | 950 | 550 | 902 | 502 | | 921.4 x 522 | 15.60 | 51.90 |
| 3/2A | | 3 | 216 | | 950 | 800 | 902 | 752 | 921.4 x 260 | 921.4 x 510 | 21.00 | 79.20 |
| 4/2A | | 4 | 288 | | 950 | 1050 | 902 | 1002 | 921.4 x 510 | 921.4 x 510 | 26.80 | 112.60 |
| 5/2A | | 5 | 360 | | 950 | 1300 | 902 | 1252 | 921.4 x 510 | 921.4 x 760 | 31.20 | 150.90 |
| 1/3A | 3 | 1 | 84 | 7 | 1100 | 300 | 1052 | 252 | | 1071.4 x 272 | 12.00 | 54.50 |
| 2/3A | | 2 | 168 | | 1100 | 550 | 1052 | 502 | | 1071.4 x 522 | 17.60 | 60.70 |
| 3/3A | | 3 | 252 | | 1100 | 800 | 1052 | 752 | 1071.4 x 260 | 1071.4 x 510 | 23.60 | 87.50 |
| 4/3A | | 4 | 336 | | 1100 | 1050 | 1052 | 1002 | 1071.4 x 510 | 1071.4 x 510 | 30.00 | 131.30 |
| 5/3A | | 5 | 420 | | 1100 | 1300 | 1052 | 1252 | 1071.4 x 510 | 1071.4 x 760 | 35.20 | 171.20 |
| 1/4A | 4 | 1 | 96 | 8 | 1250 | 300 | 1202 | 252 | | 1221.4 x 272 | 14.00 | 60.80 |
| 2/4A | | 2 | 192 | | 1250 | 550 | 1202 | 502 | | 1221.4 x 522 | 19.20 | 68.30 |
| 3/4A | | 3 | 288 | | 1250 | 800 | 1202 | 752 | 1221.4 x 260 | 1221.4 x 510 | 26.00 | 101.50 |
| 4/4A | | 4 | 384 | | 1250 | 1050 | 1202 | 1002 | 1221.4 x 510 | 1221.4 x 510 | 32.40 | 147.40 |
| 5/4A | | 5 | 480 | | 1250 | 1300 | 1202 | 1252 | 1221.4 x 510 | 1221.4 x 760 | 40.20 | 190.50 |
| 1/5A | 5 | 1 | 108 | 9 | 1400 | 300 | 1352 | 252 | | 1371.4 x 272 | 15.00 | 67.20 |
| 2/5A | | 2 | 216 | | 1400 | 550 | 1352 | 502 | | 1371.4 x 522 | 22.40 | 77.80 |
| 3/5A | | 3 | 324 | | 1400 | 800 | 1352 | 752 | 1371.4 x 260 | 1371.4 x 510 | 29.20 | 118.10 |
| 4/5A | | 4 | 432 | | 1400 | 1050 | 1352 | 1002 | 1371.4 x 510 | 1371.4 x 510 | 35.20 | 156.00 |
| 5/5A | | 5 | 540 | | 1400 | 1300 | 1352 | 1252 | 1371.4 x 510 | 1371.4 x 760 | 44.00 | 205.60 |

> Dimensions in mm

* Double-wing doors on cabinets with three or more panel widths

## A wall-mounting cabinets IP43



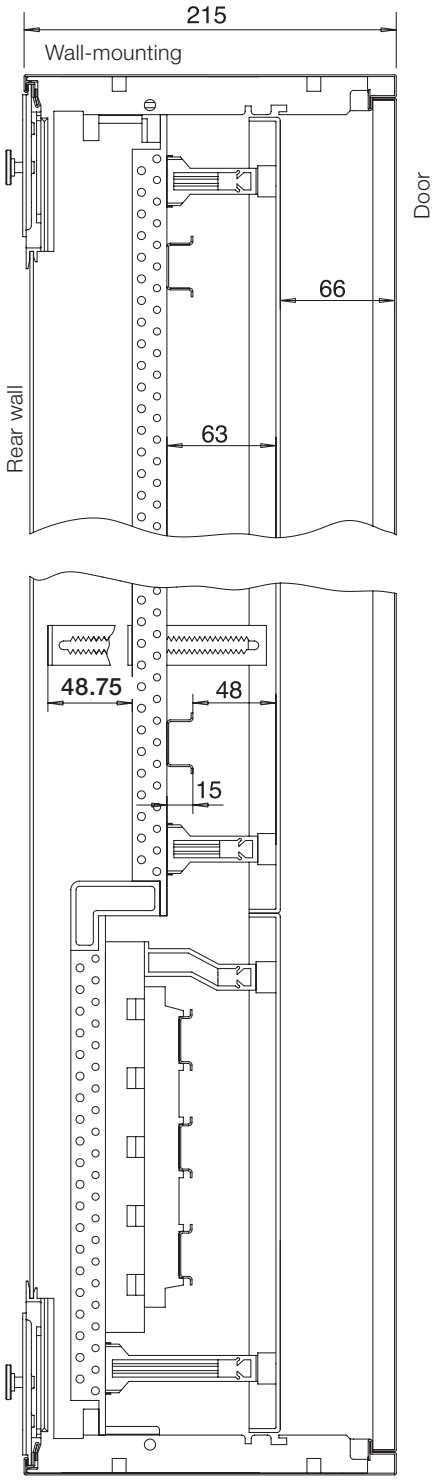

| Type | OH | PW | SU | GU | Ext. fastening | | | | Int. fastenning | | Weight | Power loss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | H2 | H3 | W2 | W3 | H4 | W4 | in kg | in watts $\triangle t_{1.0}$ 20K |
| 1/00A | 00 | 1 | 36 | 3 | 547 | 436 | 347 | 236 | 402 | 170 | 6.20 | 28.80 |
| 2/00A | | 2 | 72 | | 547 | 436 | 597 | 486 | 402 | 420 | 8.40 | 47.40 |
| 3/00A | | 3 | 108 | | 547 | 436 | 847 | 736 | 402 | 670 | 12.20 | 67.10 |
| 4/00A | | 4 | 144 | | 547 | 436 | 1097 | 986 | 402 | 920 | 15.80 | 66.20 |
| 5/00A | | 5 | 180 | | 547 | 436 | 1347 | 1236 | 402 | 1170 | 19.60 | 83.60 |
| 1/0A | 0 | 1 | 48 | 4 | 697 | 586 | 347 | 236 | 552 | 170 | 7.80 | 35.20 |
| 2/0A | | 2 | 96 | | 697 | 586 | 597 | 486 | 552 | 420 | 11.40 | 56.20 |
| 3/0A | | 3 | 144 | | 697 | 586 | 847 | 736 | 552 | 670 | 15.60 | 59.80 |
| 4/0A | | 4 | 192 | | 697 | 586 | 1097 | 986 | 552 | 920 | 16.80 | 80.90 |
| 5/0A | | 5 | 240 | | 697 | 586 | 1347 | 1236 | 552 | 1170 | 24.00 | 105.60 |
| 1/1A | 1 | 1 | 60 | 5 | 847 | 736 | 347 | 236 | 702 | 170 | 9.80 | 41.60 |
| 2/1A | | 2 | 120 | | 847 | 736 | 597 | 486 | 702 | 420 | 13.40 | 65.30 |
| 3/1A | | 3 | 180 | | 847 | 736 | 847 | 736 | 702 | 670 | 18.00 | 69.70 |
| 4/1A | | 4 | 240 | | 847 | 736 | 1097 | 986 | 702 | 920 | 23.80 | 96.80 |
| 5/1A | | 5 | 300 | | 847 | 736 | 1347 | 1236 | 702 | 1170 | 28.00 | 128.40 |
| 1/2A | 2 | 1 | 72 | 6 | 997 | 886 | 347 | 236 | 852 | 170 | 10.80 | 48.10 |
| 2/2A | | 2 | 144 | | 997 | 886 | 597 | 486 | 852 | 420 | 15.60 | 51.90 |
| 3/2A | | 3 | 216 | | 997 | 886 | 847 | 736 | 852 | 670 | 21.00 | 79.20 |
| 4/2A | | 4 | 288 | | 997 | 886 | 1097 | 986 | 852 | 920 | 26.80 | 112.60 |
| 5/2A | | 5 | 360 | | 997 | 886 | 1347 | 1236 | 852 | 1170 | 31.20 | 150.90 |
| 1/3A | 3 | 1 | 84 | 7 | 1147 | 1036 | 347 | 236 | 1002 | 170 | 12.00 | 54.50 |
| 2/3A | | 2 | 168 | | 1147 | 1036 | 597 | 486 | 1002 | 420 | 17.60 | 60.70 |
| 3/3A | | 3 | 252 | | 1147 | 1036 | 847 | 736 | 1002 | 670 | 23.60 | 87.50 |
| 4/3A | | 4 | 336 | | 1147 | 1036 | 1097 | 986 | 1002 | 920 | 30.00 | 131.30 |
| 5/3A | | 5 | 420 | | 1147 | 1036 | 1347 | 1236 | 1002 | 1170 | 35.20 | 171.20 |
| 1/4A | 4 | 1 | 96 | 8 | 1297 | 1186 | 347 | 236 | 1152 | 170 | 14.00 | 60.80 |
| 2/4A | | 2 | 192 | | 1297 | 1186 | 597 | 486 | 1152 | 420 | 19.20 | 68.30 |
| 3/4A | | 3 | 288 | | 1297 | 1186 | 847 | 736 | 1152 | 670 | 26.00 | 101.50 |
| 4/4A | | 4 | 384 | | 1297 | 1186 | 1097 | 986 | 1152 | 920 | 32.40 | 147.40 |
| 5/4A | | 5 | 480 | | 1297 | 1186 | 1347 | 1236 | 1152 | 1170 | 40.20 | 190.50 |
| 1/5A | 5 | 1 | 108 | 9 | 1447 | 1336 | 347 | 236 | 1302 | 170 | 15.00 | 67.20 |
| 2/5A | | 2 | 216 | | 1447 | 1336 | 597 | 486 | 1302 | 420 | 22.40 | 77.80 |
| 3/5A | | 3 | 324 | | 1447 | 1336 | 847 | 736 | 1302 | 670 | 29.20 | 118.10 |
| 4/5A | | 4 | 432 | | 1447 | 1336 | 1097 | 986 | 1302 | 920 | 35.20 | 156.00 |
| 5/5A | | 5 | 540 | | 1447 | 1336 | 1347 | 1236 | 1302 | 1170 | 44.00 | 205.60 |

> Dimensions in mm

# Quick product references
# Overall dimensions

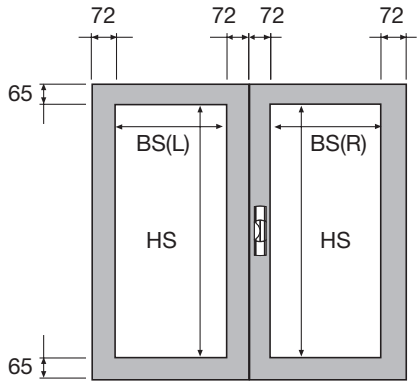
## A wall-mounting cabinets IP43 Interior configuration

### Cross section with distribution boards panels and combination sets




> Dimensions in mm

## A wall-mounting cabinets IP43 transparent doors



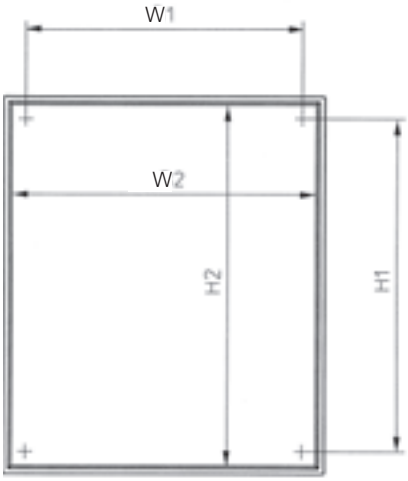

| | Cabinet | | | | Door on the left | Door on the right | Window on the left | Window on the right |
|---|---|---|---|---|---|---|---|---|
| Type | A Cabinet | OH | PW | GU | H x W | H x W | HW x WW(L) | HW x WW(R) |
| TTS100 | 1/00A | 00 | 1 | 3 | - | 471.4 x 272 | - | 341.4 x 128 |
| TTS200 | 2/00A | | 2 | | - | 471.4 x 522 | - | 341.4 x 378 |
| TTS300 | 3/00A | | 3 | | 471.4 x 260 | 471.4 x 510 | 341.4 x 116 | 341.4 x 366 |
| TTS400 | 4/00A | | 4 | | 471.4 x 510 | 471.4 x 510 | 341.4 x 366 | 341.4 x 366 |
| TTS500 | 5/00A | | 5 | | 471.4 x 510 | 471.4 x 760 | 341.4 x 366 | 341.4 x 616 |
| TTS10 | 1/0A | 0 | 1 | 4 | - | 621.4 x 272 | - | 491.4 x 128 |
| TTS20 | 2/0A | | 2 | | - | 621.4 x 522 | - | 491.4 x 378 |
| TTS30 | 3/0A | | 3 | | 621.4 x 260 | 621.4 x 510 | 491.4 x 116 | 491.4 x 366 |
| TTS40 | 4/0A | | 4 | | 621.4 x 510 | 621.4 x 510 | 491.4 x 366 | 491.4 x 366 |
| TTS50 | 5/0A | | 5 | | 621.4 x 510 | 621.4 x 760 | 491.4 x 366 | 491.4 x 616 |
| TTS11 | 1/1A | 1 | 1 | 5 | - | 771.4 x 272 | - | 641.4 x 128 |
| TTS21 | 2/1A | | 2 | | - | 771.4 x 522 | - | 641.4 x 378 |
| TTS31 | 3/1A | | 3 | | 771.4 x 260 | 771.4 x 510 | 641.4 x 116 | 641.4 x 366 |
| TTS41 | 4/1A | | 4 | | 771.4 x 510 | 771.4 x 510 | 641.4 x 366 | 641.4 x 366 |
| TTS51 | 5/1A | | 5 | | 771.4 x 510 | 771.4 x 760 | 641.4 x 366 | 641.4 x 616 |
| TTS12 | 1/2A | 2 | 1 | 6 | - | 921.4 x 272 | - | 791.4 x 128 |
| TTS22 | 2/2A | | 2 | | - | 921.4 x 522 | - | 791.4 x 378 |
| TTS32 | 3/2A | | 3 | | 921.4 x 260 | 921.4 x 510 | 791.4 x 116 | 791.4 x 366 |
| TTS42 | 4/2A | | 4 | | 921.4 x 510 | 921.4 x 510 | 791.4 x 366 | 791.4 x 366 |
| TTS52 | 5/2A | | 5 | | 921.4 x 510 | 921.4 x 760 | 791.4 x 366 | 791.4 x 616 |
| TTS13 | 1/3A | 3 | 1 | 7 | - | 1071.4 x 272 | - | 941.4 x 128 |
| TTS23 | 2/3A | | 2 | | - | 1071.4 x 522 | - | 941.4 x 378 |
| TTS33 | 3/3A | | 3 | | 1071.4 x 260 | 1071.4 x 510 | 941.4 x 116 | 941.4 x 366 |
| TTS43 | 4/3A | | 4 | | 1071.4 x 510 | 1071.4 x 510 | 941.4 x 366 | 941.4 x 366 |
| TTS53 | 5/3A | | 5 | | 1071.4 x 510 | 1071.4 x 760 | 941.4 x 366 | 941.4 x 616 |
| TTS14 | 1/4A | 4 | 1 | 8 | - | 1221.4 x 272 | - | 1091.4 x 128 |
| TTS24 | 2/4A | | 2 | | - | 1221.4 x 522 | - | 1091.4 x 378 |
| TTS34 | 3/4A | | 3 | | 1221.4 x 260 | 1221.4 x 510 | 1091.4 x 116 | 1091.4 x 366 |
| TTS44 | 4/4A | | 4 | | 1221.4 x 510 | 1221.4 x 510 | 1091.4 x 366 | 1091.4 x 366 |
| TTS54 | 5/4A | | 5 | | 1221.4 x 510 | 1221.4 x 760 | 1091.4 x 366 | 1091.4 x 616 |
| TTS15 | 1/5A | 5 | 1 | 9 | - | 1371.4 x 272 | - | 1241.4 x 128 |
| TTS25 | 2/5A | | 2 | | - | 1371.4 x 522 | - | 1241.4 x 378 |
| TTS35 | 3/5A | | 3 | | 1371.4 x 260 | 1371.4 x 510 | 1241.4 x 116 | 1241.4 x 366 |
| TTS45 | 4/5A | | 4 | | 1371.4 x 510 | 1371.4 x 510 | 1241.4 x 366 | 1241.4 x 366 |
| TTS55 | 5/5A | | 5 | | 1371.4 x 510 | 1371.4 x 760 | 1241.4 x 366 | 1241.4 x 616 |

> Dimensions in mm

*Double-wing doors on cabinets with three or more panel widths

# Quick product references
# Overall dimensions

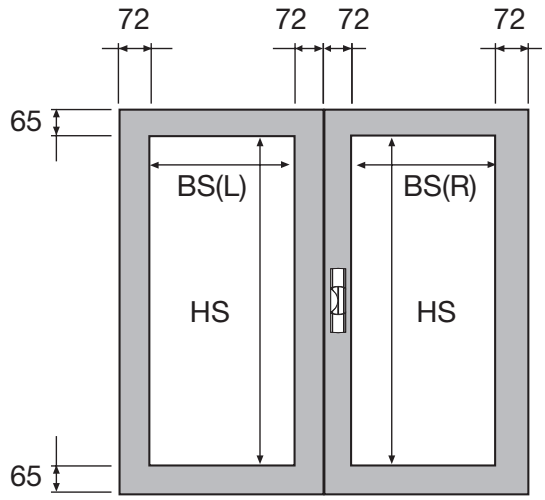
## B wall-mounting cabinets IP43




| | | | | | Ext. dimensions | | | Int. dimensions | | Int. fastening dimensions | | Weight | Power loss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | OH | PW | SU | GU | H | W | D | H2 | W2 | H1 | W1 | in kg | in watts $\Delta t_{i,0}$ 20K |
| 1/00B | 00 | 1 | 36 | 3 | 500 | 300 | 215 | 452 | 252 | 388 | 188 | 7,40 | 28,80 |
| 2/00B | | 2 | 72 | | 500 | 550 | 215 | 452 | 502 | 388 | 438 | 9,60 | 47,40 |
| 3/00B | | 3 | 108 | | 500 | 800 | 215 | 452 | 752 | 388 | 688 | 13,40 | 67,10 |
| 1/0B | 0 | 1 | 48 | 4 | 650 | 300 | 215 | 602 | 252 | 538 | 188 | 9,00 | 35,20 |
| 2/0B | | 2 | 96 | | 650 | 550 | 215 | 602 | 502 | 538 | 438 | 12,60 | 56,20 |
| 3/0B | | 3 | 144 | | 650 | 800 | 215 | 602 | 752 | 538 | 688 | 16,80 | 59,80 |
| 4/0B | | 4 | 192 | | 650 | 1050 | 215 | 602 | 1002 | 538 | 938 | 18,00 | 80,90 |
| 5/0B | | 5 | 240 | | 650 | 1300 | 215 | 602 | 1252 | 538 | 1188 | 25,20 | 105,60 |
| 1/1B | 1 | 1 | 60 | 5 | 800 | 300 | 215 | 752 | 252 | 688 | 188 | 10,80 | 41,60 |
| 2/1B | | 2 | 120 | | 800 | 550 | 215 | 752 | 502 | 688 | 438 | 14,60 | 65,30 |
| 3/1B | | 3 | 180 | | 800 | 800 | 215 | 752 | 752 | 688 | 688 | 19,20 | 69,70 |
| 4/1B | | 4 | 240 | | 800 | 1050 | 215 | 752 | 1002 | 688 | 938 | 24,80 | 96,80 |
| 5/1B | | 5 | 300 | | 800 | 1300 | 215 | 752 | 1252 | 688 | 1188 | 29,20 | 128,40 |
| 1/2B | 2 | 1 | 72 | 6 | 950 | 300 | 215 | 902 | 252 | 838 | 188 | 12,00 | 48,10 |
| 2/2B | | 2 | 144 | | 950 | 550 | 215 | 902 | 502 | 838 | 438 | 16,80 | 51,90 |
| 3/2B | | 3 | 216 | | 950 | 800 | 215 | 902 | 752 | 838 | 688 | 22,20 | 79,20 |
| 4/2B | | 4 | 288 | | 950 | 1050 | 215 | 902 | 1002 | 838 | 938 | 28,00 | 112,60 |
| 5/2B | | 5 | 360 | | 950 | 1300 | 215 | 902 | 1252 | 838 | 1188 | 32,40 | 150,90 |
| 1/3B | 3 | 1 | 84 | 7 | 1100 | 300 | 215 | 1052 | 252 | 988 | 188 | 13,20 | 54,50 |
| 2/3B | | 2 | 168 | | 1100 | 550 | 215 | 1052 | 502 | 988 | 438 | 18,80 | 60,70 |
| 3/3B | | 3 | 252 | | 1100 | 800 | 215 | 1052 | 752 | 988 | 688 | 24,80 | 87,50 |
| 4/3B | | 4 | 336 | | 1100 | 1050 | 215 | 1052 | 1002 | 988 | 938 | 31,20 | 131,30 |
| 5/3B | | 5 | 420 | | 1100 | 1300 | 215 | 1052 | 1252 | 988 | 1188 | 36,40 | 171,20 |
| 1/4B | 4 | 1 | 96 | 8 | 1250 | 300 | 215 | 1202 | 252 | 1138 | 188 | 15,00 | 60,80 |
| 2/4B | | 2 | 192 | | 1250 | 550 | 215 | 1202 | 502 | 1138 | 438 | 20,40 | 68,30 |
| 3/4B | | 3 | 288 | | 1250 | 800 | 215 | 1202 | 752 | 1138 | 688 | 27,20 | 101,50 |
| 4/4B | | 4 | 384 | | 1250 | 1050 | 215 | 1202 | 1002 | 1138 | 938 | 33,60 | 147,40 |
| 5/4B | | 5 | 480 | | 1250 | 1300 | 215 | 1202 | 1252 | 1138 | 1188 | 41,40 | 190,50 |
| 1/5B | 5 | 1 | 108 | 9 | 1400 | 300 | 215 | 1352 | 252 | 1288 | 188 | 16,20 | 67,20 |
| 2/5B | | 2 | 216 | | 1400 | 550 | 215 | 1352 | 502 | 1288 | 438 | 23,60 | 77,80 |
| 3/5B | | 3 | 324 | | 1400 | 800 | 215 | 1352 | 752 | 1288 | 688 | 30,40 | 118,10 |
| 4/5B | | 4 | 432 | | 1400 | 1050 | 215 | 1352 | 1002 | 1288 | 938 | 36,40 | 156,00 |
| 5/5B | | 5 | 540 | | 1400 | 1300 | 215 | 1352 | 1252 | 1288 | 1188 | 45,20 | 205,60 |

> Dimensions in mm

## B wall-mounting cabinets IP43




| Type | B wall-mounting cabinet | OH | PW | GU | Door on the left-hand side* H x W | Door on the right-hand side* H x W | Window on the left-hand side HW x WW(L) | Window on the right-hand side HW x WW(R) |
|---|---|---|---|---|---|---|---|---|
| TTS100 | 1/00B | 00 | 1 | 3 | - | 471.4 x 272 | - | 341.4 x 128 |
| TTS200 | 2/00B | | 2 | | - | 471.4 x 522 | - | 341.4 x 378 |
| TTS300 | 3/00B | | 3 | | 471.4 x 260 | 471.4 x 510 | 341.4 x 116 | 341.4 x 366 |
| TTS400 | - | | 4 | | 471.4 x 510 | 471.4 x 510 | 341.4 x 366 | 341.4 x 366 |
| TTS500 | - | | 5 | | 471.4 x 510 | 471.4 x 760 | 341.4 x 366 | 341.4 x 616 |
| TTS10 | 1/0B | 0 | 1 | 4 | - | 621.4 x 272 | - | 491.4 x 128 |
| TTS20 | 2/0B | | 2 | | - | 621.4 x 522 | - | 491.4 x 378 |
| TTS30 | 3/0B | | 3 | | 621.4 x 260 | 621.4 x 510 | 491.4 x 116 | 491.4 x 366 |
| TTS40 | 4/0B | | 4 | | 621.4 x 510 | 621.4 x 510 | 491.4 x 366 | 491.4 x 366 |
| TTS50 | 5/0B | | 5 | | 621.4 x 510 | 621.4 x 760 | 491.4 x 366 | 491.4 x 616 |
| TTS11 | 1/1B | 1 | 1 | 5 | - | 771.4 x 272 | - | 641.4 x 128 |
| TTS21 | 2/1B | | 2 | | - | 771.4 x 522 | - | 641.4 x 378 |
| TTS31 | 3/1B | | 3 | | 771.4 x 260 | 771.4 x 510 | 641.4 x 116 | 641.4 x 366 |
| TTS41 | 4/1B | | 4 | | 771.4 x 510 | 771.4 x 510 | 641.4 x 366 | 641.4 x 366 |
| TTS51 | 5/1B | | 5 | | 771.4 x 510 | 771.4 x 760 | 641.4 x 366 | 641.4 x 616 |
| TTS12 | 1/2B | 2 | 1 | 6 | - | 921.4 x 272 | - | 791.4 x 128 |
| TTS22 | 2/2B | | 2 | | - | 921.4 x 522 | - | 791.4 x 378 |
| TTS32 | 3/2B | | 3 | | 921.4 x 260 | 921.4 x 510 | 791.4 x 116 | 791.4 x 366 |
| TTS42 | 4/2B | | 4 | | 921.4 x 510 | 921.4 x 510 | 791.4 x 366 | 791.4 x 366 |
| TTS52 | 5/2B | | 5 | | 921.4 x 510 | 921.4 x 760 | 791.4 x 366 | 791.4 x 616 |
| TTS13 | 1/3B | 3 | 1 | 7 | - | 1071.4 x 272 | - | 941.4 x 128 |
| TTS23 | 2/3B | | 2 | | - | 1071.4 x 522 | - | 941.4 x 378 |
| TTS33 | 3/3B | | 3 | | 1071.4 x 260 | 1071.4 x 510 | 941.4 x 116 | 941.4 x 366 |
| TTS43 | 4/3B | | 4 | | 1071.4 x 510 | 1071.4 x 510 | 941.4 x 366 | 941.4 x 366 |
| TTS53 | 5/3B | | 5 | | 1071.4 x 510 | 1071.4 x 760 | 941.4 x 366 | 941.4 x 616 |
| TTS14 | 1/4B | 4 | 1 | 8 | - | 1221.4 x 272 | - | 1091.4 x 128 |
| TTS24 | 2/4B | | 2 | | - | 1221.4 x 522 | - | 1091.4 x 378 |
| TTS34 | 3/4B | | 3 | | 1221.4 x 260 | 1221.4 x 510 | 1091.4 x 116 | 1091.4 x 366 |
| TTS44 | 4/4B | | 4 | | 1221.4 x 510 | 1221.4 x 510 | 1091.4 x 366 | 1091.4 x 366 |
| TTS54 | 5/4B | | 5 | | 1221.4 x 510 | 1221.4 x 760 | 1091.4 x 366 | 1091.4 x 616 |
| TTS15 | 1/5B | 5 | 1 | 9 | - | 1371.4 x 272 | - | 1241.4 x 128 |
| TTS25 | 2/5B | | 2 | | - | 1371.4 x 522 | - | 1241.4 x 378 |
| TTS35 | 3/5B | | 3 | | 1371.4 x 260 | 1371.4 x 510 | 1241.4 x 116 | 1241.4 x 366 |
| TTS45 | 4/5B | | 4 | | 1371.4 x 510 | 1371.4 x 510 | 1241.4 x 366 | 1241.4 x 366 |
| TTS55 | 5/5B | | 5 | | 1371.4 x 510 | 1371.4 x 760 | 1241.4 x 366 | 1241.4 x 616 |

> Dimensions in mm

*Double-wing doors on cabinets with three or more panel widths

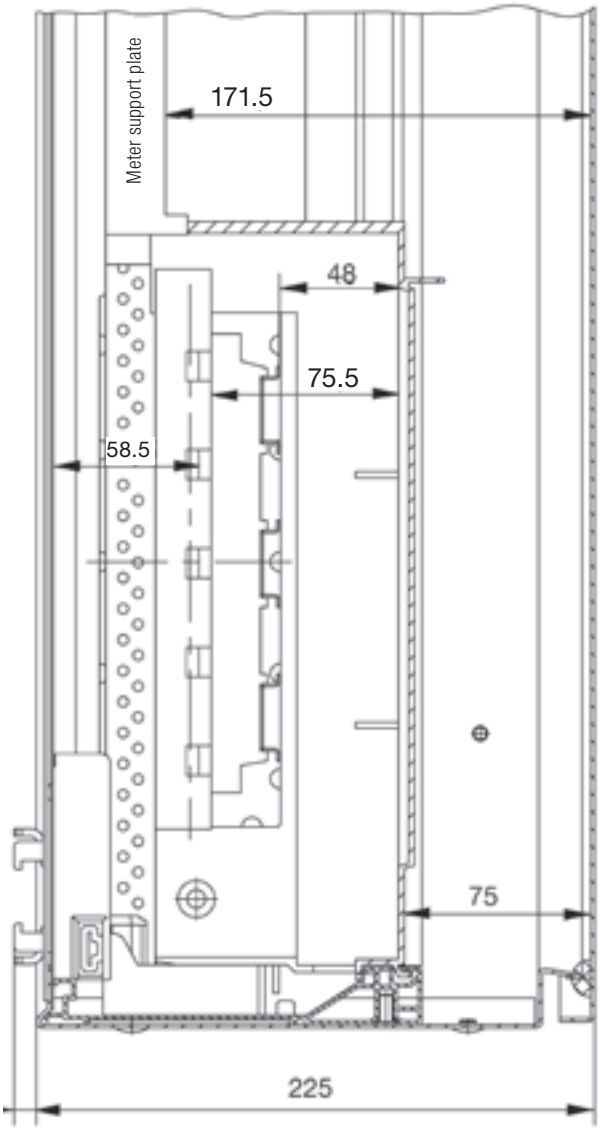
# Quick product references
# Overall dimensions

## H and HS floor-standing cabinets IP43

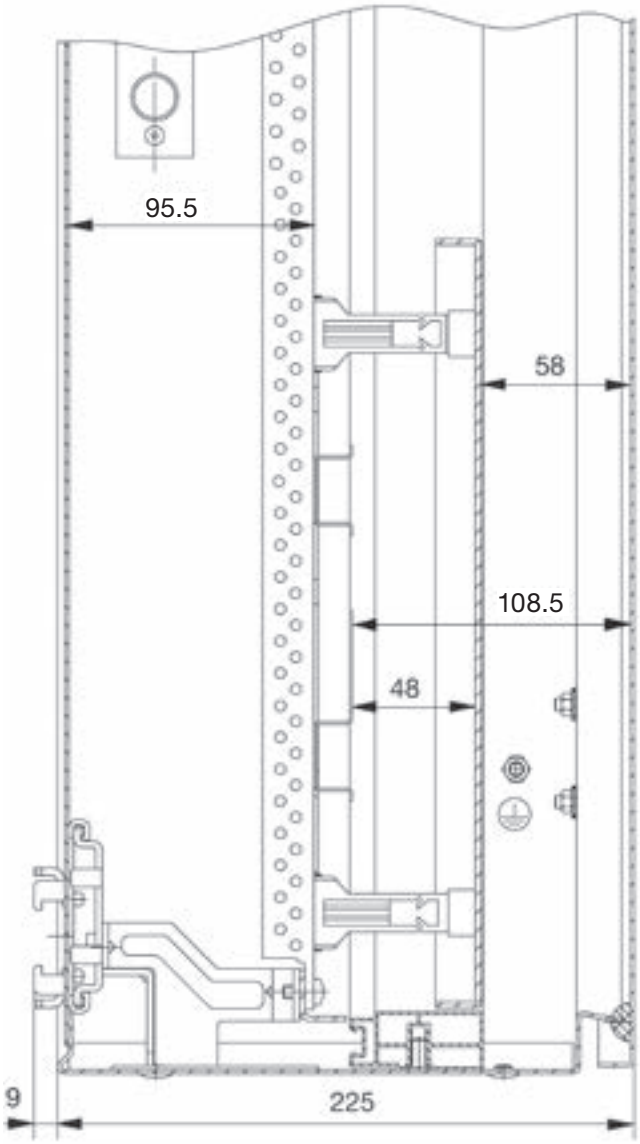
| | Type | Weight (kg) | Power loss | Ext. dimensions with plinth | Int. dimensi- |
|---|---|---|---|---|---|
| ons | | | | | |
| **HS floor-standing cabinets** | | with plinth | (W) $\triangle t_{1,0}$ 20K | H x W x D | H1 x W1 |
| With mounted EDF installation set for installing distribution board panels, combination sets and modules on the EDF mounting frame, using the ZB15 assembly set, it is also possible to incorporate meter panels. | 1/8HS | 30.33 | 67,40 | 1900 x 300 x 225 | 1802 x 252 |
| | 2/8HS | 44.62 | 119,20 | 1900 x 550 x 225 | 1802 x 502 |
| | 3/8HS | 57.20 | 170,90 | 1900 x 800 x 225 | 1802 x 752 |
| | 4/8HS | 73.41 | 206,80 | 1900 x 1050 x 225 | 1802 x 1002 |
| **H floor-standing cabinets** | | | | | |
| With mounted EDF installation set for installing distribution board panels, combination sets and modules on the EDF mounting frame. | 1/8H | 29.63 | 67,40 | 1900 x 300 x 225 | 1802 x 252 |
| | 2/8H | 43.88 | 119,20 | 1900 x 550 x 225 | 1802 x 502 |
| | 3/8H | 56.06 | 170,90 | 1900 x 800 x 225 | 1802 x 752 |
| | 4/8H | 70.83 | 206,80 | 1900 x 1050 x 225 | 1802 x 1002 |

> Dimensions in mm

**Cross section, HS cabinet with meter panel**

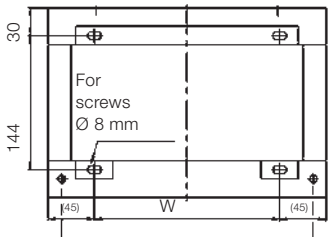



**Cross section H-cabinet with distribution board panels/modules on the EDF mounting frame**

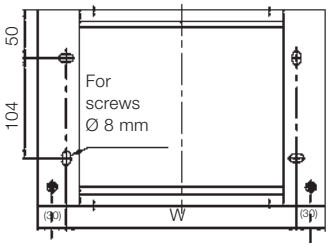


## H and HS floor-standing cabinets IP43 Plinth dimensions

**50 mm plinth**




**150 mm plinth**

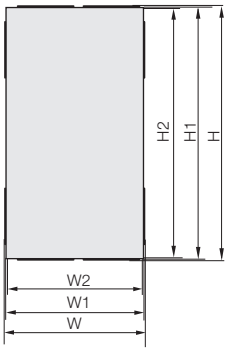



| | Type | Fixing the plinth on the cabinet A in mm | Fixing the plinth on the floor B in mm |
|---|---|---|---|
| Hole spacing for fixing the plinth on the floor<br>Plinth, height 50 mm | GSR1 | 270 mm | 210 mm |
| | GSR2 | 520 mm | 460 mm |
| | GSR3 | 770 mm | 710 mm |
| | GSR4 | 1020 mm | 960 mm |
| Hole spacing for fixing the plinth on the floor<br>Plinth, height 150 mm | GRG1 | 270 mm | 240 mm |
| | GRG2 | 520 mm | 490 mm |
| | GRG3 | 770 mm | 740 mm |
| | GRG4 | 1020 mm | 990 mm |

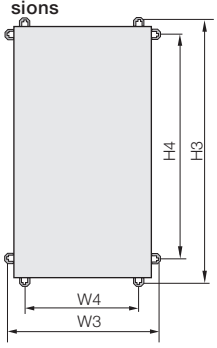
# Quick product references
# Overall dimensions

## TwinLine-G, cabinet depth 225 mm ⏚ ⧈

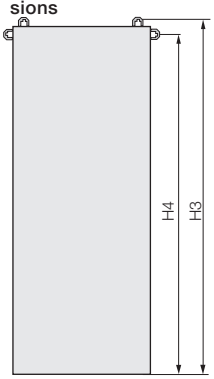
Front view
Wall-mounting and floor-standing cabinet
External/internal dimensions



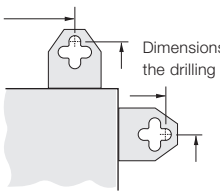

Front view
Wall-mounting cabinet
Wall fastening dimensions



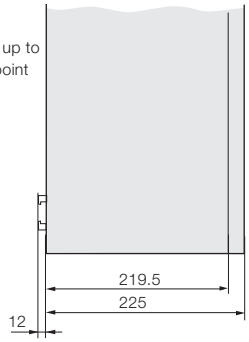

Front view
Floor-standing cabinet
Wall fastening dimensions




Front view
External fastening
Detail




Side view
With/without door

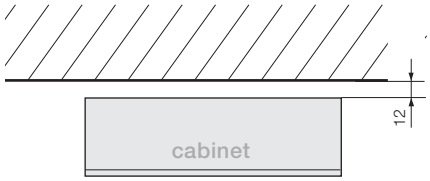



| Height | | Width | | External dimensions in mm | | Internal dimensions in mm | | External dimensions with flange knockout in mm | | Wall fastening dimensions in mm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | H1 | W1 | H2 | W2 | H | W | H3 | W3 | H4 | W4 |
| **TwinLine-G wall-mounting cabinets ⏚ ⧈** | | | | | | | | | | | | | |
| 4 | 0 | 1 | TG104 | 650 | 300 | 602 | 252 | 654 | 304 | 693.5 | 328 | 542 | 192 |
| | | 2 | TG204 | 650 | 550 | 602 | 502 | 654 | 554 | 693.5 | 578 | 542 | 442 |
| | | 3 | TG304 | 650 | 800 | 602 | 752 | 654 | 804 | 693.5 | 828 | 542 | 692 |
| | | 4 | TG404 | 650 | 1050 | 602 | 1002 | 654 | 1054 | 693.5 | 1078 | 542 | 942 |
| | | 5 | TG504 | 650 | 1300 | 602 | 1252 | 654 | 1304 | 693.5 | 1328 | 542 | 1192 |
| 5 | 1 | 1 | TG105 | 800 | 300 | 752 | 252 | 804 | 304 | 843.5 | 328 | 692 | 192 |
| | | 2 | TG205 | 800 | 550 | 752 | 502 | 804 | 554 | 843.5 | 578 | 692 | 442 |
| | | 3 | TG305 | 800 | 800 | 752 | 752 | 804 | 804 | 843.5 | 828 | 692 | 692 |
| | | 4 | TG405 | 800 | 1050 | 752 | 1002 | 804 | 1054 | 843.5 | 1078 | 692 | 942 |
| | | 5 | TG505 | 800 | 1300 | 752 | 1252 | 804 | 1304 | 843.5 | 1328 | 692 | 1192 |
| 6 | 2 | 1 | TG106 | 950 | 300 | 902 | 252 | 954 | 304 | 993.5 | 328 | 842 | 192 |
| | | 2 | TG206 | 950 | 550 | 902 | 502 | 954 | 554 | 993.5 | 578 | 842 | 442 |
| | | 3 | TG306 | 950 | 800 | 902 | 752 | 954 | 804 | 993.5 | 828 | 842 | 692 |
| | | 4 | TG406 | 950 | 1050 | 902 | 1002 | 954 | 1054 | 993.5 | 1078 | 842 | 942 |
| | | 5 | TG506 | 950 | 1300 | 902 | 1252 | 954 | 1304 | 993.5 | 1328 | 842 | 1192 |
| 7 | 3 | 1 | TG107 | 1100 | 300 | 1052 | 252 | 1104 | 304 | 1143.5 | 328 | 992 | 192 |
| | | 2 | TG207 | 1100 | 550 | 1052 | 502 | 1104 | 554 | 1143.5 | 578 | 992 | 442 |
| | | 3 | TG307 | 1100 | 800 | 1052 | 752 | 1104 | 804 | 1143.5 | 828 | 992 | 692 |
| | | 4 | TG407 | 1100 | 1050 | 1052 | 1002 | 1104 | 1054 | 1143.5 | 1078 | 992 | 942 |
| | | 5 | TG507 | 1100 | 1300 | 1052 | 1252 | 1104 | 1304 | 1143.5 | 1328 | 992 | 1192 |
| 8 | 4 | 1 | TG108 | 1250 | 300 | 1202 | 252 | 1254 | 304 | 1293.5 | 328 | 1142 | 192 |
| | | 2 | TG208 | 1250 | 550 | 1202 | 502 | 1254 | 554 | 1293.5 | 578 | 1142 | 442 |
| | | 3 | TG308 | 1250 | 800 | 1202 | 752 | 1254 | 804 | 1293.5 | 828 | 1142 | 692 |
| | | 4 | TG408 | 1250 | 1050 | 1202 | 1002 | 1254 | 1054 | 1293.5 | 1078 | 1142 | 942 |
| | | 5 | TG508 | 1250 | 1300 | 1202 | 1252 | 1254 | 1304 | 1293.5 | 1328 | 1142 | 1192 |
| 9 | 5 | 1 | TG109 | 1400 | 300 | 1352 | 252 | 1404 | 304 | 1443.5 | 328 | 1292 | 192 |
| | | 2 | TG209 | 1400 | 550 | 1352 | 502 | 1404 | 554 | 1443.5 | 578 | 1292 | 442 |
| | | 3 | TG309 | 1400 | 800 | 1352 | 752 | 1404 | 804 | 1443.5 | 828 | 1292 | 692 |
| | | 4 | TG409 | 1400 | 1050 | 1352 | 1002 | 1404 | 1054 | 1443.5 | 1078 | 1292 | 942 |
| | | 5 | TG509 | 1400 | 1300 | 1352 | 1252 | 1404 | 1304 | 1443.5 | 1328 | 1292 | 1192 |
| **TwinLine-G floor-standing cabinets ⏚ ⧈** | | | | | | | | | | | | | |
| 12 | 8 | 1 | TG112 | 1850 | 300 | 1802 | 252 | 1854 | 304 | 1872 | 328 | 1796 | 192 |
| | | 2 | TG212 | 1850 | 550 | 1802 | 502 | 1854 | 554 | 1872 | 578 | 1796 | 442 |
| | | 3 | TG312 | 1850 | 800 | 1802 | 752 | 1854 | 804 | 1872 | 828 | 1796 | 692 |
| | | 4 | TG412 | 1850 | 1050 | 1802 | 1002 | 1854 | 1054 | 1872 | 1078 | 1796 | 942 |
| | | 5 | TG512 | 1850 | 1300 | 1802 | 1252 | 1854 | 1304 | 1872 | 1328 | 1796 | 1192 |

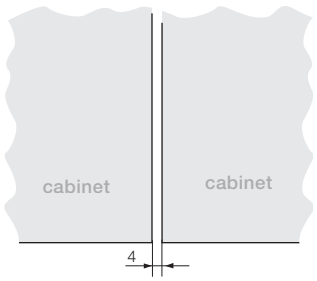
> Dimensions in mm

## TwinLine-G, cabinet depth 225 mm, ⏚ ⧈

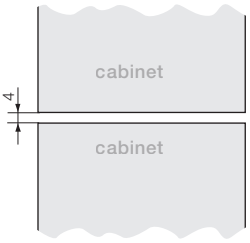
Type of installation
Cabinet to the wall




Type of installation
Cabinet combination
in series




Type of installation
Cabinet combination
on top of each other



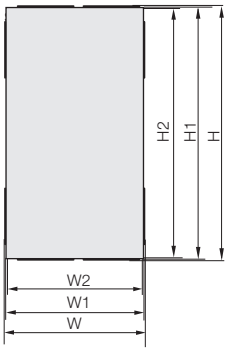

| Height | | Width | | ⏚/⧈ Power loss in Watt* $\Delta t_{1.0}$ 20K | ⏚ Cabinet weight in kg | | ⧈ Cabinet weight in kg | | max. installation weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | | With door | Without door | With door | Without door | in kg |
| **TwinLine-G wall-mounting cabinets ⏚⧈** | | | | | | | | | |
| 4 | 0 | 1 | TG104 | 35.80 | 11.40 | 7.43 | 12.89 | 8.92 | 15.00 |
| | | 2 | TG204 | 57.00 | 16.17 | 9.95 | 17.80 | 11.59 | 30.00 |
| | | 3 | TG304 | 61.00 | 21.02 | 12.47 | 22.80 | 14.25 | 45.00 |
| | | 4 | TG404 | 82.30 | 28.03 | 15.54 | 29.95 | 17.46 | 60.00 |
| | | 5 | TG504 | 107.80 | 32.86 | 18.07 | 34.92 | 20.13 | 75.00 |
| 5 | 1 | 1 | TG105 | 42.30 | 13.17 | 8.40 | 14.86 | 10.10 | 20.50 |
| | | 2 | TG205 | 66.10 | 18.72 | 11.22 | 20.60 | 13.11 | 41.00 |
| | | 3 | TG305 | 71.00 | 24.29 | 14.03 | 26.37 | 16.11 | 61.50 |
| | | 4 | TG405 | 99.00 | 32.45 | 17.40 | 34.71 | 19.67 | 82.50 |
| | | 5 | TG505 | 131.20 | 38.03 | 20.22 | 40.49 | 22.68 | 103.00 |
| 6 | 2 | 1 | TG106 | 48.80 | 14.89 | 9.37 | 16.78 | 11.26 | 26.00 |
| | | 2 | TG206 | 52.60 | 21.23 | 12.43 | 23.36 | 14.61 | 52.50 |
| | | 3 | TG306 | 80.90 | 27.55 | 15.59 | 29.92 | 17.37 | 78.50 |
| | | 4 | TG406 | 115.10 | 36.84 | 19.25 | 39.46 | 21.86 | 105.00 |
| | | 5 | TG506 | 153.70 | 43.18 | 22.36 | 46.03 | 25.09 | 131.00 |
| 7 | 3 | 1 | TG107 | 55.40 | 17.14 | 10.72 | 19.23 | 12.81 | 31.50 |
| | | 2 | TG207 | 61.40 | 24.36 | 14.25 | 26.74 | 16.64 | 63.50 |
| | | 3 | TG307 | 93.50 | 31.56 | 17.79 | 34.23 | 20.46 | 95.50 |
| | | 4 | TG407 | 133.70 | 42.23 | 21.87 | 45.19 | 24.83 | 127.50 |
| | | 5 | TG507 | 174.30 | 49.44 | 25.41 | 52.69 | 28.66 | 159.00 |
| 8 | 4 | 1 | TG108 | 61.80 | 18.90 | 11.68 | 21.20 | 13.98 | 37.50 |
| | | 2 | TG208 | 69.30 | 26.87 | 15.51 | 29.50 | 18.15 | 75.00 |
| | | 3 | TG308 | 102.90 | 34.82 | 19.34 | 37.80 | 22.31 | 112.50 |
| | | 4 | TG408 | 150.30 | 46.64 | 23.72 | 50.01 | 27.10 | 150.00 |
| | | 5 | TG508 | 193.30 | 54.59 | 27.55 | 58.31 | 31.27 | 187.50 |
| 9 | 5 | 1 | TG109 | 68.20 | 20.66 | 12.65 | 23.15 | 15.14 | 43.00 |
| | | 2 | TG209 | 79.10 | 29.38 | 16.77 | 32.23 | 19.65 | 86.00 |
| | | 3 | TG309 | 119.30 | 38.08 | 20.89 | 41.35 | 24.16 | 129.00 |
| | | 4 | TG409 | 157.50 | 51.04 | 25.57 | 54.77 | 29.31 | 172.50 |
| | | 5 | TG509 | 208.80 | 59.74 | 29.69 | 63.87 | 33.82 | 215.50 |
| **TwinLine-G floor-standing cabinets ⏚⧈** | | | | | | | | | |
| 12 | 8 | 1 | TG112 | 64.00 | 26.17 | 15.78 | 28.89 | 18.50 | 60.00 |
| | | 2 | TG212 | 113.00 | 40.22 | 23.81 | 43.73 | 27.31 | 120.00 |
| | | 3 | TG312 | 162.60 | 51.87 | 29.54 | 56.17 | 33.84 | 180.00 |
| | | 4 | TG412 | 202.10 | 69.40 | 36.27 | 74.59 | 41.46 | 240.00 |
| | | 5 | TG512 | 230.80 | 80.19 | 41.11 | 86.17 | 47.09 | 300.00 |

* General remarks on the determination of the power loss: Values according to DIN EN 61439-1 section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation ≤ 2000 m altitude; internal form of separation = 1; side walls not covered

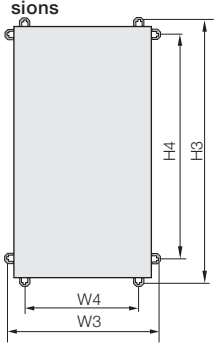
# Quick product references
# Overall dimensions

## TwinLine-L, cabinet depth 275 mm

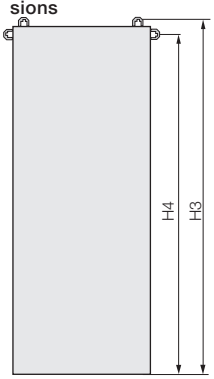
Front view
Wall-mounting and floor-standing cabinet
External/internal dimen-



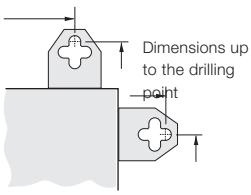

Front view
Wall-mounting cabinet
Wall fastening dimen-sions



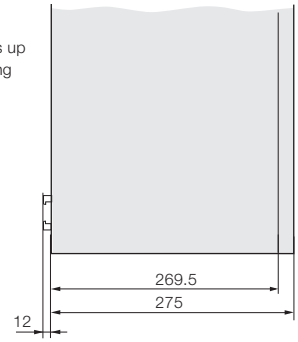

Front view
Floor-standing cabinet
Wall fastening dimen-sions




Front view
External fastening
Detail




Side view
With/without door

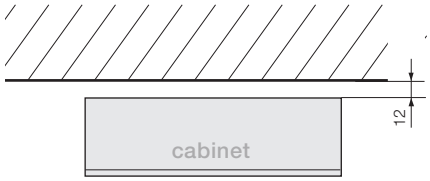



| Height | | Width | | External dimensions in mm | | Internal dimensions in mm | | External dimensions with flange knockout in mm | | Wall fastening dimensions in mm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | H1 | W1 | H2 | W2 | H | W | H3 | W3 | H4 | W4 |
| **TwinLine-L wall-mounting cabinets** | | | | | | | | | | | | | |
| 4 | 0 | 1 | TL104 | 650 | 300 | 602 | 252 | 654 | 304 | 693.5 | 328 | 542 | 192 |
| | | 2 | TL204 | 650 | 550 | 602 | 502 | 654 | 554 | 693.5 | 578 | 542 | 442 |
| | | 3 | TL304 | 650 | 800 | 602 | 752 | 654 | 804 | 693.5 | 828 | 542 | 692 |
| | | 4 | TL404 | 650 | 1050 | 602 | 1002 | 654 | 1054 | 693.5 | 1078 | 542 | 942 |
| | | 5 | TL504 | 650 | 1300 | 602 | 1252 | 654 | 1304 | 693.5 | 1328 | 542 | 1192 |
| 5 | 1 | 1 | TL105 | 800 | 300 | 752 | 252 | 804 | 304 | 843.5 | 328 | 692 | 192 |
| | | 2 | TL205 | 800 | 550 | 752 | 502 | 804 | 554 | 843.5 | 578 | 692 | 442 |
| | | 3 | TL305 | 800 | 800 | 752 | 752 | 804 | 804 | 843.5 | 828 | 692 | 692 |
| | | 4 | TL405 | 800 | 1050 | 752 | 1002 | 804 | 1054 | 843.5 | 1078 | 692 | 942 |
| | | 5 | TL505 | 800 | 1300 | 752 | 1252 | 804 | 1304 | 843.5 | 1328 | 692 | 1192 |
| 6 | 2 | 1 | TL106 | 950 | 300 | 902 | 252 | 954 | 304 | 993.5 | 328 | 842 | 192 |
| | | 2 | TL206 | 950 | 550 | 902 | 502 | 954 | 554 | 993.5 | 578 | 842 | 442 |
| | | 3 | TL306 | 950 | 800 | 902 | 752 | 954 | 804 | 993.5 | 828 | 842 | 692 |
| | | 4 | TL406 | 950 | 1050 | 902 | 1002 | 954 | 1054 | 993.5 | 1078 | 842 | 942 |
| | | 5 | TL506 | 950 | 1300 | 902 | 1252 | 954 | 1304 | 993.5 | 1328 | 842 | 1192 |
| 7 | 3 | 1 | TL107 | 1100 | 300 | 1052 | 252 | 1104 | 304 | 1143.5 | 328 | 992 | 192 |
| | | 2 | TL207 | 1100 | 550 | 1052 | 502 | 1104 | 554 | 1143.5 | 578 | 992 | 442 |
| | | 3 | TL307 | 1100 | 800 | 1052 | 752 | 1104 | 804 | 1143.5 | 828 | 992 | 692 |
| | | 4 | TL407 | 1100 | 1050 | 1052 | 1002 | 1104 | 1054 | 1143.5 | 1078 | 992 | 942 |
| | | 5 | TL507 | 1100 | 1300 | 1052 | 1252 | 1104 | 1304 | 1143.5 | 1328 | 992 | 1192 |
| 8 | 4 | 1 | TL108 | 1250 | 300 | 1202 | 252 | 1254 | 304 | 1293.5 | 328 | 1142 | 192 |
| | | 2 | TL208 | 1250 | 550 | 1202 | 502 | 1254 | 554 | 1293.5 | 578 | 1142 | 442 |
| | | 3 | TL308 | 1250 | 800 | 1202 | 752 | 1254 | 804 | 1293.5 | 828 | 1142 | 692 |
| | | 4 | TL408 | 1250 | 1050 | 1202 | 1002 | 1254 | 1054 | 1293.5 | 1078 | 1142 | 942 |
| | | 5 | TL508 | 1250 | 1300 | 1202 | 1252 | 1254 | 1304 | 1293.5 | 1328 | 1142 | 1192 |
| 9 | 5 | 1 | TL109 | 1400 | 300 | 1352 | 252 | 1404 | 304 | 1443.5 | 328 | 1292 | 192 |
| | | 2 | TL209 | 1400 | 550 | 1352 | 502 | 1404 | 554 | 1443.5 | 578 | 1292 | 442 |
| | | 3 | TL309 | 1400 | 800 | 1352 | 752 | 1404 | 804 | 1443.5 | 828 | 1292 | 692 |
| | | 4 | TL409 | 1400 | 1050 | 1352 | 1002 | 1404 | 1054 | 1443.5 | 1078 | 1292 | 942 |
| | | 5 | TL509 | 1400 | 1300 | 1352 | 1252 | 1404 | 1304 | 1443.5 | 1328 | 1292 | 1192 |
| **TwinLine-L floor-standing cabinets** | | | | | | | | | | | | | |
| 12 | 8 | 1 | TL112 | 1850 | 300 | 1802 | 252 | 1854 | 304 | 1872 | 328 | 1796 | 192 |
| | | 2 | TL212 | 1850 | 550 | 1802 | 502 | 1854 | 554 | 1872 | 578 | 1796 | 442 |
| | | 3 | TL312 | 1850 | 800 | 1802 | 752 | 1854 | 804 | 1872 | 828 | 1796 | 692 |
| | | 4 | TL412 | 1850 | 1050 | 1802 | 1002 | 1854 | 1054 | 1872 | 1078 | 1796 | 942 |
| | | 5 | TL512 | 1850 | 1300 | 1802 | 1252 | 1854 | 1304 | 1872 | 1328 | 1796 | 1192 |

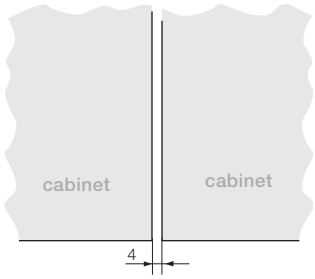
> Dimensions in mm

## TwinLine-L, cabinet depth 275 mm ⏚ ⧈

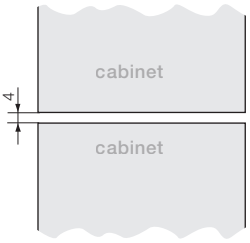
Type of installation
Cabinet to the wall




Type of installation
Cabinet combination
in series




Type of installation
Cabinet combination
on top of each other



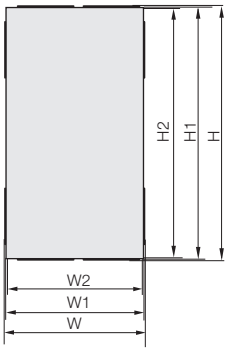

| Height | | Width | | ⏚/⧈ Power loss in Watt* $\Delta t_{1.0}$ 20K | ⏚ Cabinet weight in kg | | ⧈ Cabinet weight in kg | | max. installation weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | | With door | Without door | With door | Without door | in kg |
| **TwinLine-L wall-mounting cabinets ⏚ ⧈** | | | | | | | | | |
| 4 | 0 | 1 | TL104 | 38.80 | 12.25 | 8.28 | 13.80 | 9.83 | 15.00 |
| | | 2 | TL204 | 60.80 | 17.23 | 10.97 | 18.94 | 12.72 | 30.00 |
| | | 3 | TL304 | 67.10 | 22.30 | 13.75 | 24.16 | 15.61 | 45.00 |
| | | 4 | TL404 | 89.70 | 29.54 | 17.06 | 31.54 | 19.08 | 60.00 |
| | | 5 | TL504 | 116.80 | 34.59 | 19.79 | 36.76 | 21.97 | 75.00 |
| 5 | 1 | 1 | TL105 | 45.80 | 14.13 | 9.37 | 15.89 | 11.13 | 20.50 |
| | | 2 | TL205 | 70.20 | 19.90 | 12.40 | 21.86 | 14.36 | 41.00 |
| | | 3 | TL305 | 78.00 | 25.68 | 15.43 | 27.86 | 17.60 | 61.50 |
| | | 4 | TL405 | 108.90 | 34.08 | 19.03 | 36.45 | 21.38 | 82.50 |
| | | 5 | TL505 | 145.10 | 39.87 | 22.06 | 42.46 | 24.64 | 103.00 |
| 6 | 2 | 1 | TL106 | 52.80 | 15.97 | 10.45 | 17.94 | 12.35 | 26.00 |
| | | 2 | TL206 | 59.90 | 22.53 | 13.78 | 24.75 | 16.00 | 52.50 |
| | | 3 | TL306 | 89.80 | 29.06 | 17.10 | 31.54 | 19.58 | 78.50 |
| | | 4 | TL406 | 128.10 | 38.59 | 21.00 | 41.32 | 23.73 | 105.00 |
| | | 5 | TL506 | 168.00 | 45.14 | 24.32 | 48.09 | 27.28 | 131.00 |
| 7 | 3 | 1 | TL107 | 59.80 | 18.34 | 11.89 | 20.51 | 14.09 | 31.50 |
| | | 2 | TL207 | 65.20 | 25.77 | 15.67 | 28.25 | 18.15 | 63.50 |
| | | 3 | TL307 | 102.80 | 33.19 | 19.41 | 35.97 | 22.20 | 95.50 |
| | | 4 | TL407 | 145.70 | 44.10 | 23.74 | 47.19 | 27.14 | 127.50 |
| | | 5 | TL507 | 189.20 | 51.51 | 27.48 | 54.91 | 30.88 | 159.00 |
| 8 | 4 | 1 | TL108 | 66.70 | 20.22 | 13.00 | 22.61 | 15.39 | 37.50 |
| | | 2 | TL208 | 74.40 | 28.40 | 17.04 | 31.14 | 19.78 | 75.00 |
| | | 3 | TL308 | 117.80 | 36.57 | 21.09 | 39.66 | 24.18 | 112.50 |
| | | 4 | TL408 | 163.70 | 48.62 | 25.70 | 52.14 | 29.22 | 150.00 |
| | | 5 | TL508 | 207.70 | 56.79 | 29.75 | 60.65 | 33.61 | 187.50 |
| 9 | 5 | 1 | TL109 | 52.20 | 22.39 | 14.09 | 24.69 | 16.68 | 43.00 |
| | | 2 | TL209 | 86.00 | 31.03 | 18.42 | 34.03 | 21.42 | 86.00 |
| | | 3 | TL309 | 126.00 | 39.95 | 22.76 | 43.35 | 26.16 | 129.00 |
| | | 4 | TL409 | 179.10 | 53.14 | 27.68 | 57.02 | 31.55 | 172.50 |
| | | 5 | TL509 | 222.10 | 62.05 | 32.01 | 66.34 | 36.29 | 215.50 |
| **TwinLine-L floor-standing cabinets ⏚ ⧈** | | | | | | | | | |
| 12 | 8 | 1 | TL112 | 69.60 | 27.96 | 17.57 | 30.84 | 20.45 | 60.00 |
| | | 2 | TL212 | 120.90 | 42.23 | 25.81 | 45.91 | 29.49 | 120.00 |
| | | 3 | TL312 | 171.90 | 54.09 | 31.76 | 58.58 | 36.24 | 180.00 |
| | | 4 | TL412 | 207.00 | 71.86 | 38.72 | 77.25 | 44.12 | 240.00 |
| | | 5 | TL512 | 250.30 | 83.46 | 44.37 | 89.66 | 50.57 | 300.00 |

* General remarks on the determination of the power loss: Values according to DIN EN 61439-1, section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation ≤ 2000 m altitude; internal form of separation = 1; side walls not covered

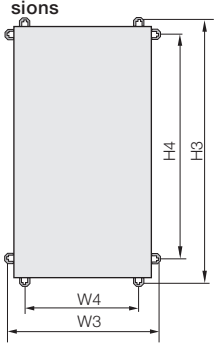
# Quick product references
# Overall dimensions

## TwinLine-W, cabinet depth 350 mm ⏚ ⧈

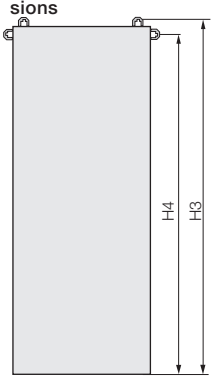
Front view
Wall-mounting and floor-standing cabinet
External/internal dimensions



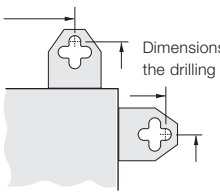

Front view
Wall-mounting cabinet
Wall fastening dimensions



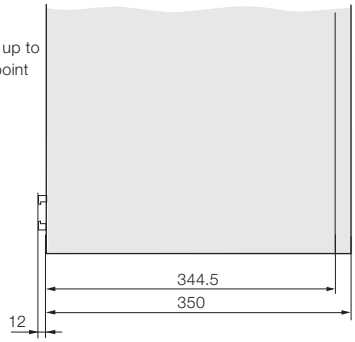

Front view
Floor-standing cabinet
Wall fastening dimensions




Front view
External fastening
Detail



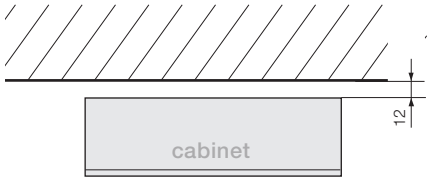

Side view
With/without door



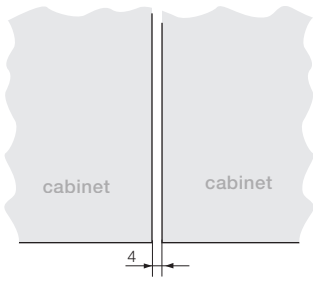

| Height | | Width | | External dimensions in mm | | Internal dimensions in mm | | External dimensions with flange knockout in mm | | Wall fastening dimensions in mm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | H1 | W1 | H2 | W2 | H | W | H3 | W3 | H4 | W4 |
| **TwinLine-W wall-mounting cabinets ⏚ ⧈** | | | | | | | | | | | | | |
| 4 | 0 | 1 | TW104 | 650 | 300 | 602 | 252 | 654 | 304 | 693.5 | 328 | 542 | 192 |
| | | 2 | TW204 | 650 | 550 | 602 | 502 | 654 | 554 | 693.5 | 578 | 542 | 442 |
| | | 3 | TW304 | 650 | 800 | 602 | 752 | 654 | 804 | 693.5 | 828 | 542 | 692 |
| | | 4 | TW404 | 650 | 1050 | 602 | 1002 | 654 | 1054 | 693.5 | 1078 | 542 | 942 |
| | | 5 | TW504 | 650 | 1300 | 602 | 1252 | 654 | 1304 | 693.5 | 1328 | 542 | 1192 |
| 5 | 1 | 1 | TW105 | 800 | 300 | 752 | 252 | 804 | 304 | 843.5 | 328 | 692 | 192 |
| | | 2 | TW205 | 800 | 550 | 752 | 502 | 804 | 554 | 843.5 | 578 | 692 | 442 |
| | | 3 | TW305 | 800 | 800 | 752 | 752 | 804 | 804 | 843.5 | 828 | 692 | 692 |
| | | 4 | TW405 | 800 | 1050 | 752 | 1002 | 804 | 1054 | 843.5 | 1078 | 692 | 942 |
| | | 5 | TW505 | 800 | 1300 | 752 | 1252 | 804 | 1304 | 843.5 | 1328 | 692 | 1192 |
| 6 | 2 | 1 | TW106 | 950 | 300 | 902 | 252 | 954 | 304 | 993.5 | 328 | 842 | 192 |
| | | 2 | TW206 | 950 | 550 | 902 | 502 | 954 | 554 | 993.5 | 578 | 842 | 442 |
| | | 3 | TW306 | 950 | 800 | 902 | 752 | 954 | 804 | 993.5 | 828 | 842 | 692 |
| | | 4 | TW406 | 950 | 1050 | 902 | 1002 | 954 | 1054 | 993.5 | 1078 | 842 | 942 |
| | | 5 | TW506 | 950 | 1300 | 902 | 1252 | 954 | 1304 | 993.5 | 1328 | 842 | 1192 |
| 7 | 3 | 1 | TW107 | 1100 | 300 | 1052 | 252 | 1104 | 304 | 1143.5 | 328 | 992 | 192 |
| | | 2 | TW207 | 1100 | 550 | 1052 | 502 | 1104 | 554 | 1143.5 | 578 | 992 | 442 |
| | | 3 | TW307 | 1100 | 800 | 1052 | 752 | 1104 | 804 | 1143.5 | 828 | 992 | 692 |
| | | 4 | TW407 | 1100 | 1050 | 1052 | 1002 | 1104 | 1054 | 1143.5 | 1078 | 992 | 942 |
| | | 5 | TW507 | 1100 | 1300 | 1052 | 1252 | 1104 | 1304 | 1143.5 | 1328 | 992 | 1192 |
| 8 | 4 | 1 | TW108 | 1250 | 300 | 1202 | 252 | 1254 | 304 | 1293.5 | 328 | 1142 | 192 |
| | | 2 | TW208 | 1250 | 550 | 1202 | 502 | 1254 | 554 | 1293.5 | 578 | 1142 | 442 |
| | | 3 | TW308 | 1250 | 800 | 1202 | 752 | 1254 | 804 | 1293.5 | 828 | 1142 | 692 |
| | | 4 | TW408 | 1250 | 1050 | 1202 | 1002 | 1254 | 1054 | 1293.5 | 1078 | 1142 | 942 |
| | | 5 | TW508 | 1250 | 1300 | 1202 | 1252 | 1254 | 1304 | 1293.5 | 1328 | 1142 | 1192 |
| 9 | 5 | 1 | TW109 | 1400 | 300 | 1352 | 252 | 1404 | 304 | 1443.5 | 328 | 1292 | 192 |
| | | 2 | TW209 | 1400 | 550 | 1352 | 502 | 1404 | 554 | 1443.5 | 578 | 1292 | 442 |
| | | 3 | TW309 | 1400 | 800 | 1352 | 752 | 1404 | 804 | 1443.5 | 828 | 1292 | 692 |
| | | 4 | TW409 | 1400 | 1050 | 1352 | 1002 | 1404 | 1054 | 1443.5 | 1078 | 1292 | 942 |
| | | 5 | TW509 | 1400 | 1300 | 1352 | 1252 | 1404 | 1304 | 1443.5 | 1328 | 1292 | 1192 |
| **TwinLine-W floor-standing cabinets ⏚ ⧈** | | | | | | | | | | | | | |
| 12 | 8 | 1 | TW112 | 1850 | 300 | 1802 | 252 | 1854 | 304 | 1872 | 328 | 1796 | 192 |
| | | 2 | TW212 | 1850 | 550 | 1802 | 502 | 1854 | 554 | 1872 | 578 | 1796 | 442 |
| | | 3 | TW312 | 1850 | 800 | 1802 | 752 | 1854 | 804 | 1872 | 828 | 1796 | 692 |
| | | 4 | TW412 | 1850 | 1050 | 1802 | 1002 | 1854 | 1054 | 1872 | 1078 | 1796 | 942 |
| | | 5 | TW512 | 1850 | 1300 | 1802 | 1252 | 1854 | 1304 | 1872 | 1328 | 1796 | 1192 |
| | | 6 | TW612 | 1850 | 1550 | 1802 | 1502 | 1854 | 1554 | 1872 | 1578 | 1796 | 1442 |

## TwinLine-W, cabinet depth 350 mm ⏚ ⧈

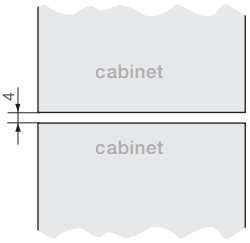
Type of installation
Cabinet to the wall




Type of installation
Cabinet combination
in series




Type of installation
Cabinet combination
on top of each other



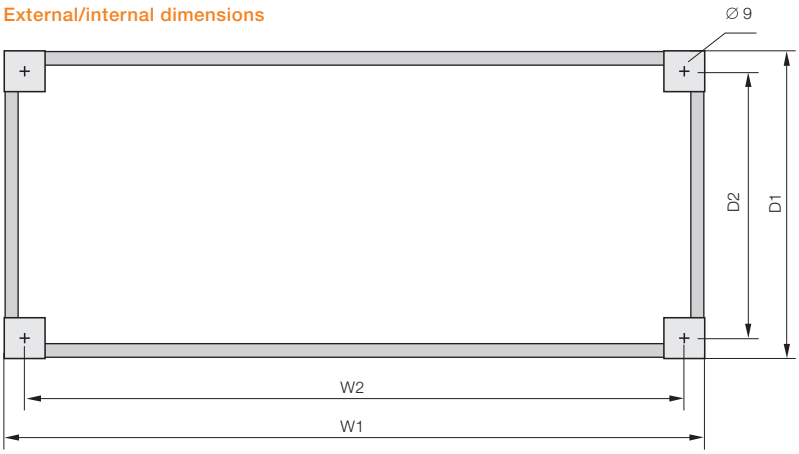

| Height | | Width | | ⏚/⧈ Power loss in Watt* $\triangle t_{1.0}$ 20K | ⏚ Cabinet weight in kg | | ⧈ Cabinet weight in kg | | max. installation weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | | With door | Without door | With door | Without door | in kg |
| **TwinLine-W wall-mounting cabinets ⏚ ⧈** | | | | | | | | | |
| 4 | 0 | 1 | TW104 | 43.00 | 13.50 | 9.47 | 15.13 | 11.16 | 15.00 |
| | | 2 | TW204 | 65.90 | 18.79 | 12.58 | 20.60 | 14.38 | 30.00 |
| | | 3 | TW304 | 75.90 | 24.17 | 15.62 | 26.16 | 17.61 | 45.00 |
| | | 4 | TW404 | 100.10 | 31.76 | 19.27 | 33.92 | 21.44 | 60.00 |
| | | 5 | TW504 | 129.30 | 37.12 | 22.32 | 39.46 | 24.66 | 75.00 |
| 5 | 1 | 1 | TW105 | 50.50 | 15.56 | 10.80 | 17.41 | 12.65 | 20.50 |
| | | 2 | TW205 | 59.80 | 21.64 | 14.14 | 23.72 | 16.21 | 41.00 |
| | | 3 | TW305 | 87.70 | 27.74 | 17.48 | 30.04 | 19.78 | 61.50 |
| | | 4 | TW405 | 121.30 | 36.47 | 21.42 | 39.00 | 23.95 | 82.50 |
| | | 5 | TW505 | 158.90 | 42.58 | 24.77 | 45.33 | 27.52 | 103.00 |
| 6 | 2 | 1 | TW106 | 58.20 | 17.58 | 12.06 | 19.65 | 14.13 | 26.00 |
| | | 2 | TW206 | 68.20 | 24.44 | 15.69 | 26.79 | 18.04 | 52.50 |
| | | 3 | TW306 | 102.80 | 31.29 | 19.33 | 33.91 | 21.95 | 78.50 |
| | | 4 | TW406 | 144.80 | 41.16 | 23.57 | 44.06 | 26.46 | 105.00 |
| | | 5 | TW506 | 185.80 | 48.02 | 27.20 | 51.19 | 30.07 | 131.00 |
| 7 | 3 | 1 | TW107 | 65.80 | 20.12 | 13.70 | 22.41 | 15.99 | 31.50 |
| | | 2 | TW207 | 75.70 | 27.87 | 17.76 | 30.48 | 20.38 | 63.50 |
| | | 3 | TW307 | 116.50 | 35.59 | 21.82 | 38.53 | 24.76 | 95.50 |
| | | 4 | TW407 | 163.60 | 46.84 | 26.48 | 50.11 | 29.75 | 127.50 |
| | | 5 | TW507 | 209.30 | 54.58 | 30.55 | 58.16 | 34.13 | 159.00 |
| 8 | 4 | 1 | TW108 | 52.00 | 22.18 | 14.96 | 24.81 | 17.48 | 37.50 |
| | | 2 | TW208 | 82.70 | 30.67 | 19.32 | 33.56 | 22.20 | 75.00 |
| | | 3 | TW308 | 132.60 | 39.15 | 23.67 | 42.42 | 26.93 | 112.50 |
| | | 4 | TW408 | 180.80 | 51.55 | 28.63 | 55.25 | 32.33 | 150.00 |
| | | 5 | TW508 | 227.50 | 60.03 | 32.98 | 64.10 | 37.06 | 187.50 |
| 9 | 5 | 1 | TW109 | 58.60 | 24.23 | 16.22 | 26.96 | 18.95 | 43.00 |
| | | 2 | TW209 | 93.90 | 33.48 | 20.87 | 36.63 | 24.03 | 86.00 |
| | | 3 | TW309 | 146.40 | 42.71 | 25.52 | 46.29 | 29.10 | 129.00 |
| | | 4 | TW409 | 197.10 | 56.24 | 30.77 | 60.32 | 34.85 | 172.50 |
| | | 5 | TW509 | 238.20 | 65.47 | 35.42 | 69.97 | 39.93 | 215.50 |
| **TwinLine-W floor-standing cabinets ⏚ ⧈** | | | | | | | | | |
| 12 | 8 | 1 | TW112 | 78.90 | 30.62 | 20.24 | 33.72 | 23.33 | 60.00 |
| | | 2 | TW212 | 131.70 | 45.10 | 28.69 | 49.02 | 32.60 | 120.00 |
| | | 3 | TW312 | 181.50 | 57.38 | 35.05 | 62.12 | 39.79 | 180.00 |
| | | 4 | TW412 | 226.00 | 75.29 | 42.15 | 80.95 | 47.82 | 240.00 |
| | | 5 | TW512 | 269.40 | 87.20 | 48.12 | 93.70 | 54.61 | 300.00 |
| | | 6 | TW612 | 354.50 | 99.02 | 53.98 | 106.34 | 61.30 | 360.00 |

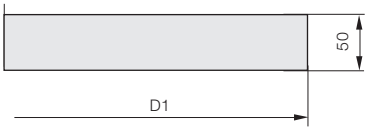
* General remarks on the determination of the power loss: Values according to DIN EN 61439-1, section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation ≤ 2000 m altitude; internal form of separation = 1; side walls not covered

# Quick product references
# Overall dimensions

## TwinLine plinth, height 50 mm

External/internal dimensions

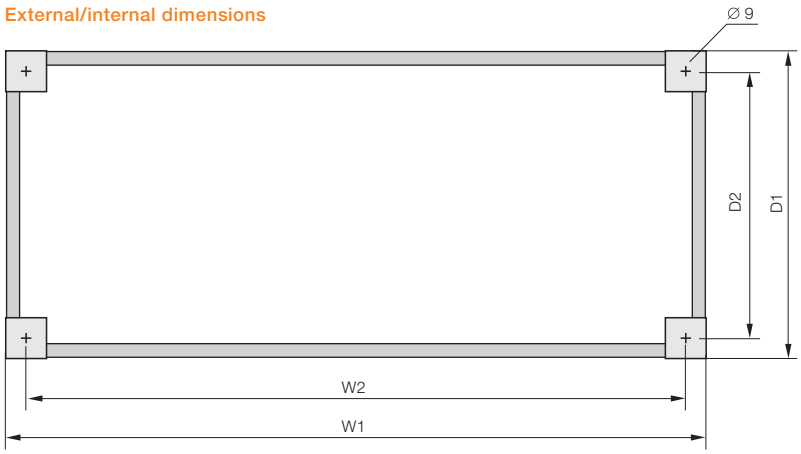


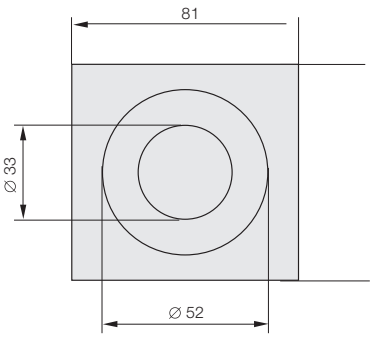

| Height | Depth | Width | | External dimensions Width x depth in mm | | Internal dimensions Width x depth in mm | | Weight |
|---|---|---|---|---|---|---|---|---|
| mm | mm | PW | Type | W1 | D1 | W2 | D2 | in kg |
| **TwinLine-G, plinth 50 mm** | | | | | | | | |
| 50 | 225 | 1 | TZG105 | 300 | 203.5 | 270 | 173.5 | 1.37 |
| | | 2 | TZG205 | 550 | 203.5 | 520 | 173.5 | 1.91 |
| | | 3 | TZG305 | 800 | 203.5 | 770 | 173.5 | 3.14 |
| | | 4 | TZG405 | 1050 | 203.5 | 1020 | 173.5 | 2.93 |
| | | 5 | TZG505 | 1300 | 203.5 | 1270 | 173.5 | 3.44 |
| **TwinLine-L, plinth 50 mm** | | | | | | | | |
| 50 | 275 | 1 | TZL105 | 300 | 253.5 | 270 | 223.5 | 1.49 |
| | | 2 | TZL205 | 550 | 253.5 | 520 | 223.5 | 2.03 |
| | | 3 | TZL305 | 800 | 253.5 | 770 | 223.5 | 2.54 |
| | | 4 | TZL405 | 1050 | 253.5 | 1020 | 223.5 | 3.34 |
| | | 5 | TZL505 | 1300 | 253.5 | 1270 | 223.5 | 5.78 |
| **TwinLine-W, plinth 50 mm** | | | | | | | | |
| 50 | 350 | 1 | TZW105 | 300 | 328.5 | 270 | 298.5 | 1.67 |
| | | 2 | TZW205 | 550 | 328.5 | 520 | 298.5 | 2.21 |
| | | 3 | TZW305 | 800 | 328.5 | 770 | 298.5 | 2.72 |
| | | 4 | TZW405 | 1050 | 328.5 | 1020 | 298.5 | 5.03 |
| | | 5 | TZW505 | 1300 | 328.5 | 1270 | 298.5 | 5.97 |
| | | 6 | TZW605 | 1550 | 328.5 | 1520 | 298.5 | 6.90 |

## TwinLine plinth, height 100 mm

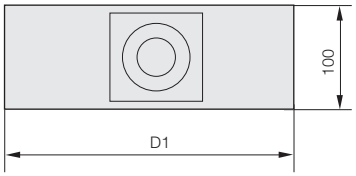
External/internal dimensions



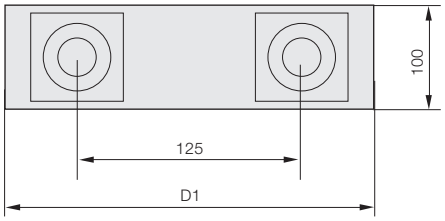

Detail view for side knockout




View side knockout TwinLine-G and -L




View side knockout TwinLine-W

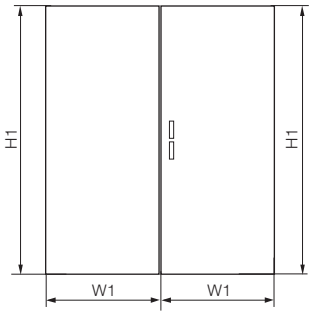



| Height | Depth | Width | | External dimensions Width x depth in mm | | Internal dimensions Width x depth in mm | | Weight |
|---|---|---|---|---|---|---|---|---|
| mm | mm | PW | Type | W1 | D1 | W2 | D2 | in kg |
| **TwinLine-G, plinth 100 mm** | | | | | | | | |
| 100 | 225 | 1 | TZG110 | 300 | 203.5 | 270 | 173.5 | 2.22 |
| | | 2 | TZG210 | 550 | 203.5 | 520 | 173.5 | 3.06 |
| | | 3 | TZG310 | 800 | 203.5 | 770 | 173.5 | 3.87 |
| | | 4 | TZG410 | 1050 | 203.5 | 1020 | 173.5 | 4.67 |
| | | 5 | TZG510 | 1300 | 204.5 | 1270 | 173.5 | 5.47 |
| **TwinLine-L, plinth 100 mm** | | | | | | | | |
| 100 | 275 | 1 | TZL110 | 300 | 253.5 | 270 | 223.5 | 2.41 |
| | | 2 | TZL210 | 550 | 253.5 | 520 | 223.5 | 3.24 |
| | | 3 | TZL310 | 800 | 253.5 | 770 | 223.5 | 4.05 |
| | | 4 | TZL410 | 1050 | 253.5 | 1020 | 223.5 | 6.71 |
| | | 5 | TZL510 | 1300 | 254.5 | 1270 | 223.5 | 7.95 |
| **TwinLine-W, plinth 100 mm** | | | | | | | | |
| 100 | 350 | 1 | TZW110 | 300 | 328.5 | 270 | 298.5 | 2.68 |
| | | 2 | TZW210 | 550 | 328.5 | 520 | 298.5 | 3.52 |
| | | 3 | TZW310 | 800 | 328.5 | 770 | 298.5 | 4.32 |
| | | 4 | TZW410 | 1050 | 328.5 | 1020 | 298.5 | 6.98 |
| | | 5 | TZW510 | 1300 | 329.5 | 1270 | 298.5 | 8.22 |
| | | 6 | TZW610 | 1550 | 329.5 | 1520 | 298.5 | 9.45 |

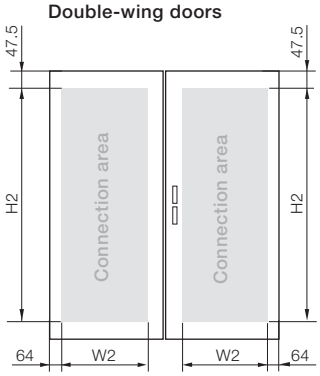
# Quick product references
# Overall dimensions

## TwinLine doors, height 4 up to 7 GU

**External dimensions**
**For all cabinets of a width of 4 panels and more**
**Double-wing doors**




**Usable connection area**
**For all cabinets of a width of 4 panels and more**
**Double-wing doors**

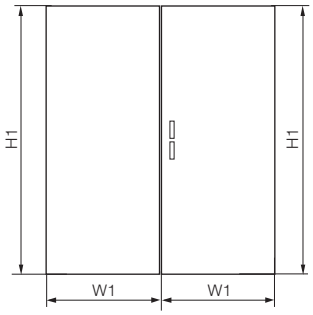



| Height | | Width | | | External dimensions Height x width in mm | | External dimensions Height x width in mm | | Weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | Remark | H1 | W1 | H2 | W2 | in kg |
| **TwinLine wall-mounting cabinets, doors** | | | | | | | | | |
| 4 | 0 | 1 | TZB104 | | 643 | 289 | 548 | 123 | 5.46 |
| | | 2 | TZB204 | | 643 | 539 | 548 | 373 | 7.75 |
| | | 3 | TZB304 | | 643 | 789 | 548 | 623 | 10.11 |
| | | 4*1 | TZB204L | Door left | 643 | 526 *2 | 548 | 373 | 7.77 |
| | | | TZB204R | Door right | 643 | 539 | 548 | 373 | 7.78 |
| | | 5*1 | TZB304L | Door left | 643 | 776 *2 | 548 | 623 | 10.11 |
| | | | TZB204R | Door right | 643 | 539 | 548 | 373 | 7.78 |
| 5 | 1 | 1 | TZB105 | | 793 | 289 | 698 | 123 | 6.27 |
| | | 2 | TZB205 | | 793 | 539 | 698 | 373 | 9.05 |
| | | 3 | TZB305 | | 793 | 789 | 698 | 623 | 11.85 |
| | | 4*1 | TZB205L | Door left | 793 | 526 *2 | 698 | 373 | 9.10 |
| | | | TZB205R | Door right | 793 | 539 | 698 | 373 | 9.05 |
| | | 5*1 | TZB305L | Door left | 793 | 776 *2 | 698 | 623 | 11.89 |
| | | | TZB205R | Door right | 793 | 539 | 698 | 373 | 9.05 |
| 6 | 2 | 1 | TZB106 | | 943 | 289 | 848 | 123 | 7.03 |
| | | 2 | TZB206 | | 943 | 539 | 848 | 373 | 10.32 |
| | | 3 | TZB306 | | 943 | 789 | 848 | 623 | 13.58 |
| | | 4*1 | TZB206L | Door left | 943 | 526 *2 | 848 | 373 | 10.41 |
| | | | TZB206R | Door right | 943 | 539 | 848 | 373 | 10.32 |
| | | 5*1 | TZB306L | Door left | 943 | 776 *2 | 848 | 623 | 13.68 |
| | | | TZB206R | Door right | 943 | 539 | 848 | 373 | 10.32 |
| 7 | 3 | 1 | TZB107 | | 1093 | 289 | 998 | 123 | 7.94 |
| | | 2 | TZB207 | | 1093 | 539 | 998 | 373 | 11.69 |
| | | 3 | TZB307 | | 1093 | 789 | 998 | 623 | 15.42 |
| | | 4*1 | TZB207L | Door left | 1093 | 526 *2 | 998 | 373 | 11.85 |
| | | | TZB207R | Door right | 1093 | 539 | 998 | 373 | 11.69 |
| | | 5*1 | TZB307L | Door left | 1093 | 776 *2 | 998 | 623 | 15.57 |
| | | | TZB207R | Door right | 1093 | 539 | 998 | 373 | 11.69 |

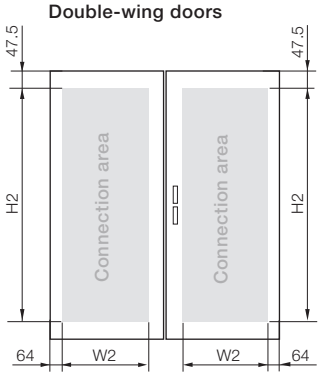
*1 *4 or more panels wide: double-wing doors
*2 Dimensions incl. central door bar

## TwinLine doors, height 8 up to 12 GU

External dimensions
For all cabinets of a width of 4 panels and more
Double-wing doors




Usable connection area
For all cabinets of a width of 4 panels and more
Double-wing doors



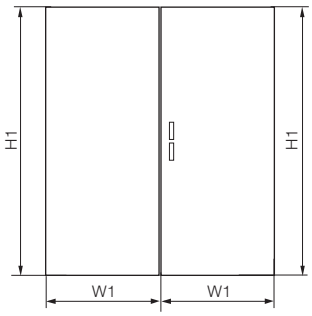

| Height | | Width | | | External dimensions Height x width in mm | | External dimensions Height x width in mm | | Weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | Remark | H1 | W1 | H2 | W2 | in kg |
| **TwinLine wall-mounting cabinets, doors** | | | | | | | | | |
| 8 | 4 | 1 | TZB108 | | 1243 | 289 | 1148 | 123 | 8.75 |
| | | 2 | TZB208 | | 1243 | 539 | 1148 | 373 | 12.96 |
| | | 3 | TZB308 | | 1243 | 789 | 1148 | 623 | 17.15 |
| | | 4* | TZB208L | Door left | 1243 | 526 *2 | 1148 | 373 | 13.17 |
| | | | TZB208R | Door right | 1243 | 539 | 1148 | 373 | 12.96 |
| | | 5* | TZB308L | Door left | 1243 | 776 *2 | 1148 | 623 | 17.36 |
| | | | TZB208R | Door right | 1243 | 539 | 1148 | 373 | 12.96 |
| 9 | 5 | 1 | TZB109 | | 1393 | 289 | 1298 | 123 | 9.55 |
| | | 2 | TZB209 | | 1393 | 539 | 1298 | 373 | 14.23 |
| | | 3 | TZB309 | | 1393 | 789 | 1298 | 623 | 18.88 |
| | | 4* | TZB209L | Door left | 1393 | 526 *2 | 1298 | 373 | 14.49 |
| | | | TZB209R | Door right | 1393 | 539 | 1298 | 373 | 14.23 |
| | | 5* | TZB309L | Door left | 1393 | 776 *2 | 1298 | 623 | 19.14 |
| | | | TZB209R | Door right | 1393 | 539 | 1298 | 373 | 14.23 |
| **TwinLine floor-standing cabinets, doors** | | | | | | | | | |
| 12 | 8 | 1 | TZB112 | | 1843 | 289 | 1748 | 123 | 11.96 |
| | | 2 | TZB212 | | 1843 | 539 | 1748 | 373 | 18.07 |
| | | 3 | TZB312 | | 1843 | 789 | 1748 | 623 | 24.08 |
| | | 4* | TZB212L | Door left | 1843 | 526 *2 | 1748 | 373 | 18.45 |
| | | | TZB212R | Door right | 1843 | 539 | 1748 | 373 | 18.03 |
| | | 5* | TZB312L | Door left | 1843 | 776 *2 | 1748 | 623 | 24.49 |
| | | | TZB212R | Door right | 1843 | 539 | 1748 | 373 | 18.03 |
| | | 6* | TZB312L | Door left | 1843 | 776 *2 | 1748 | 623 | 24.49 |
| | | | TZB312R | Door right | 1843 | 789 | 1748 | 623 | 24.08 |

*Double-wing doors for all cabinets of a width of 4 panels and more
*2 Dimensions incl. central door bar

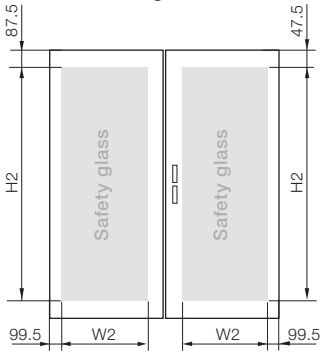
# Quick product references
# Overall dimensions

## TwinLine Transparent doors, height 4 up to 7 GU

**External dimensions**
**For all cabinets of a width of 4 panels and more**
**Double-wing doors**




**Dimensions of vewing area**
**For all cabinets of a width of 4 panels and more**
**Double-wing doors**

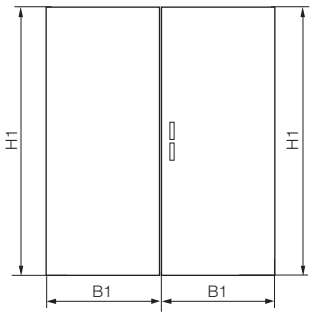



| Height | | Width | | | External dimensions Height x width in mm | | Vewing area Height x width in mm | | Weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | Remark | H1 | W1 | H2 | W2 | in kg |
| **TwinLine wall-mounting cabinets, doors** | | | | | | | | | |
| 4 | 0 | 2 | TZT204 | | 643 | 539 | 468 | 340 | 6.40 |
| | | 3 | TZT304 | | 643 | 789 | 468 | 590 | 8.70 |
| | | 4*1 | TZT204L | Door left | 643 | 526 *2 | 468 | 340 | 6.50 |
| | | | TZT204R | Door right | 643 | 539 | 468 | 340 | 6.50 |
| | | 5*1 | TZT304L | Door left | 643 | 776 *2 | 468 | 590 | 8.40 |
| | | | TZT204R | Door right | 643 | 539 | 468 | 340 | 6.50 |
| 5 | 1 | 2 | TZT205 | | 793 | 539 | 618 | 340 | 7.60 |
| | | 3 | TZT305 | | 793 | 789 | 618 | 590 | 10.20 |
| | | 4*1 | TZT205L | Door left | 793 | 526 *2 | 618 | 340 | 7.40 |
| | | | TZT205R | Door right | 793 | 539 | 618 | 340 | 7.50 |
| | | 5*1 | TZT305L | Door left | 793 | 776 *2 | 618 | 590 | 9.90 |
| | | | TZT205R | Door right | 793 | 539 | 618 | 340 | 7.50 |
| 6 | 2 | 2 | TZT206 | | 943 | 539 | 768 | 340 | 8.70 |
| | | 3 | TZT306 | | 943 | 789 | 768 | 590 | 11.50 |
| | | 4*1 | TZT206L | Door left | 943 | 526 *2 | 768 | 340 | 8.50 |
| | | | TZT206R | Door right | 943 | 539 | 768 | 340 | 8.60 |
| | | 5*1 | TZT306L | Door left | 943 | 776 *2 | 768 | 590 | 11.40 |
| | | | TZT206R | Door right | 943 | 539 | 768 | 340 | 8.60 |
| 7 | 3 | 2 | TZT207 | | 1093 | 539 | 918 | 340 | 10.00 |
| | | 3 | TZT307 | | 1093 | 789 | 918 | 590 | 13.00 |
| | | 4*1 | TZT207L | Door left | 1093 | 526 *2 | 918 | 340 | 9.70 |
| | | | TZT207R | Door right | 1093 | 539 | 918 | 340 | 9.80 |
| | | 5*1 | TZT307L | Door left | 1093 | 776 *2 | 918 | 590 | 13.00 |
| | | | TZT207R | Door right | 1093 | 539 | 918 | 340 | 9.80 |

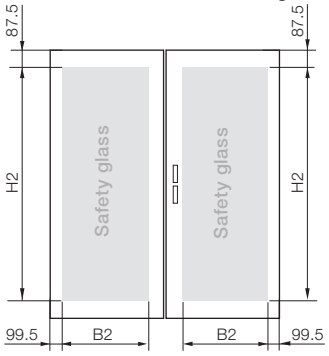
*1 *4 or more panels wide: double-wing doors
*2 Dimensions incl. central door bar

## TwinLine Transparent doors, height 8 up to 12 GU

External dimensions
For all cabinets of a width of 4 panels and more Double-wing doors




Dimensions of vewing area
For all cabinets of a width of 4 panels and more Double-wing doors



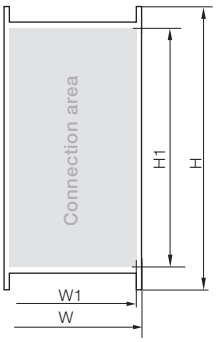

| Height | | Width | | | External dimensions Height x width in mm | | Vewing area Height x width in mm | | Weight |
|---|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | Remark | H1 | W1 | H2 | W2 | in kg |
| **TwinLine wall-mounting cabinets, doors** | | | | | | | | | |
| 8 | 4 | 2 | TZB208 | | 1243 | 539 | 1068 | 340 | 11.10 |
| | | 3 | TZB308 | | 1243 | 789 | 1068 | 590 | 14.60 |
| | | 4* | TZB208L | Door left | 1243 | 526 *2 | 1068 | 340 | 10.90 |
| | | | TZB208R | Door right | 1243 | 539 | 1068 | 340 | 11.10 |
| | | 5* | TZB308L | Door left | 1243 | 776 *2 | 1068 | 590 | 14.60 |
| | | | TZB208R | Door right | 1243 | 539 | 1068 | 340 | 11.10 |
| 9 | 5 | 2 | TZB209 | | 1393 | 539 | 1218 | 340 | 12.20 |
| | | 3 | TZB309 | | 1393 | 789 | 1218 | 590 | 16.10 |
| | | 4* | TZB209L | Door left | 1393 | 526 *2 | 1218 | 340 | 12.00 |
| | | | TZB209R | Door right | 1393 | 539 | 1218 | 340 | 11.50 |
| | | 5* | TZB309L | Door left | 1393 | 776 *2 | 1218 | 590 | 16.00 |
| | | | TZB209R | Door right | 1393 | 539 | 1218 | 340 | 11.50 |
| **TwinLine floor-standing cabinets, doors** | | | | | | | | | |
| 12 | 8 | 2 | TZB212 | | 1843 | 539 | 1668 | 340 | 15.60 |
| | | 3 | TZB312 | | 1843 | 789 | 1668 | 590 | 20.70 |
| | | 4* | TZB212L | Door left | 1843 | 526 *2 | 1668 | 340 | 15.60 |
| | | | TZB212R | Door right | 1843 | 539 | 1668 | 340 | 15.40 |
| | | 5* | TZB312L | Door left | 1843 | 776 *2 | 1668 | 590 | 20.70 |
| | | | TZB212R | Door right | 1843 | 539 | 1668 | 340 | 15.40 |
| | | 6* | TZB312L | Door left | 1843 | 776 *2 | 1668 | 590 | 20.70 |
| | | | TZB312R | Door right | 1843 | 789 | 1668 | 590 | 19.90 |

*Double-wing doors for all cabinets of a width of 4 panels and more
*2 Dimensions incl. central door bar

# Quick product references
# Overall dimensions

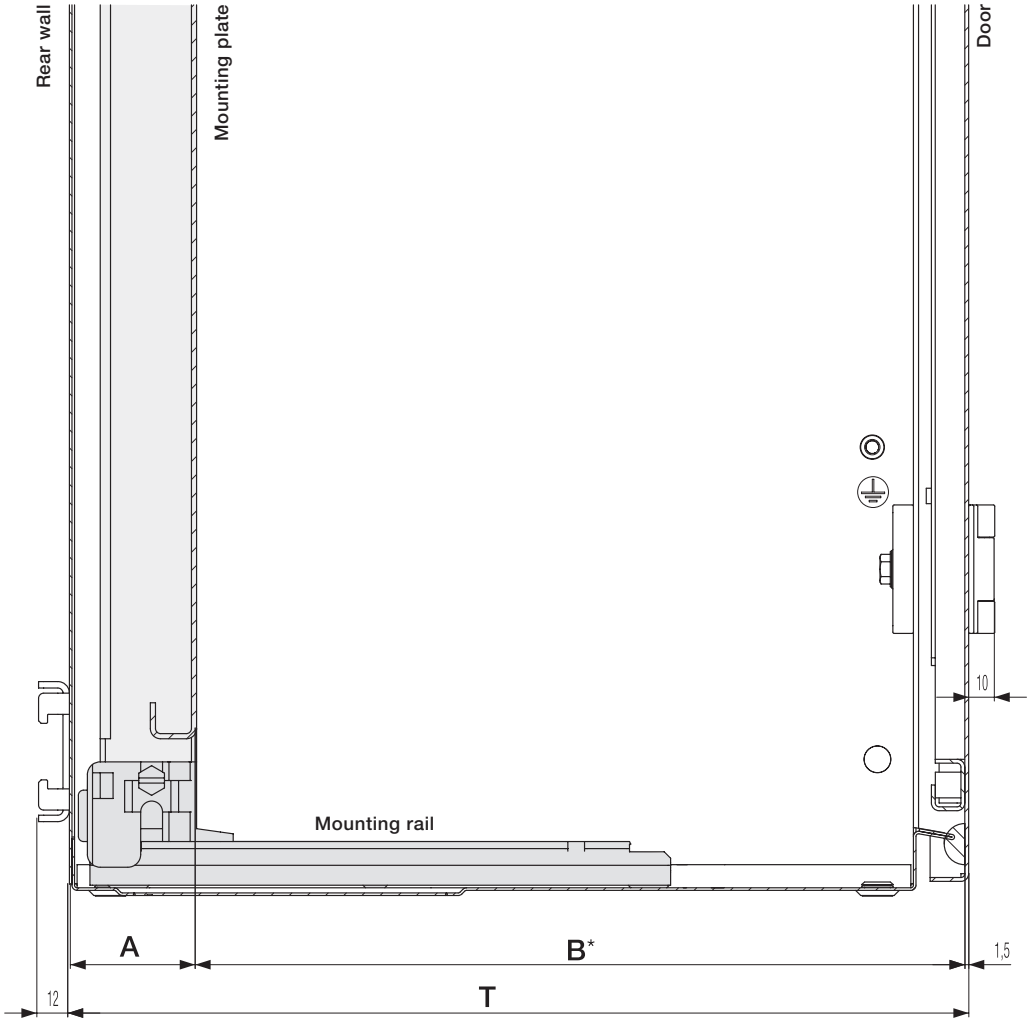
## TwinLine mounting plates

**External dimensions / Usable connection area**
**Mounting plate**

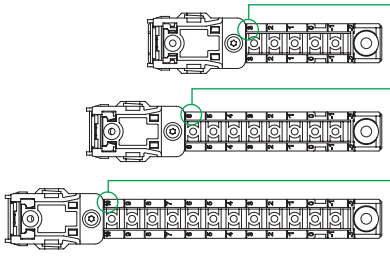



| Height | | Width | | External dimensions in mm | | Connection area in mm | | Weight |
|---|---|---|---|---|---|---|---|---|
| GU | OH | PW | Type | H | W | H1 | W1 | in kg |
| **Mounting plates for TwinLine wall-mounting cabinets** ⏚ | | | | | | | | |
| 4 | 0 | 1 | TZM104 | 600 | 246 | 522 | 160 | 3.51 |
| | | 2 | TZM204 | 600 | 496 | 522 | 410 | 5.79 |
| | | 3 | TZM304 | 600 | 746 | 522 | 660 | 8.07 |
| | | 4 | TZM404 | 600 | 996 | 522 | 910 | 10.35 |
| | | 5 | TZM504 | 600 | 1246 | 522 | 1160 | 12.62 |
| 5 | 1 | 1 | TZM105 | 750 | 246 | 672 | 160 | 4.43 |
| | | 2 | TZM205 | 750 | 496 | 672 | 410 | 7.30 |
| | | 3 | TZM305 | 750 | 746 | 672 | 660 | 10.17 |
| | | 4 | TZM405 | 750 | 996 | 672 | 910 | 13.03 |
| | | 5 | TZM505 | 750 | 1246 | 672 | 1160 | 15.90 |
| 6 | 2 | 1 | TZM106 | 900 | 246 | 822 | 160 | 5.35 |
| | | 2 | TZM206 | 900 | 496 | 822 | 410 | 8.80 |
| | | 3 | TZM306 | 900 | 746 | 822 | 660 | 12.26 |
| | | 4 | TZM406 | 900 | 996 | 822 | 910 | 15.72 |
| | | 5 | TZM506 | 900 | 1246 | 822 | 1160 | 19.20 |
| 7 | 3 | 1 | TZM107 | 1050 | 246 | 972 | 160 | 6.26 |
| | | 2 | TZM207 | 1050 | 496 | 972 | 410 | 10.31 |
| | | 3 | TZM307 | 1050 | 746 | 972 | 660 | 14.36 |
| | | 4 | TZM407 | 1050 | 996 | 972 | 910 | 18.40 |
| | | 5 | TZM507 | 1050 | 1246 | 972 | 1160 | 22.45 |
| 8 | 4 | 1 | TZM108 | 1200 | 246 | 1122 | 160 | 7.18 |
| | | 2 | TZM208 | 1200 | 496 | 1122 | 410 | 11.82 |
| | | 3 | TZM308 | 1200 | 746 | 1122 | 660 | 16.45 |
| | | 4 | TZM408 | 1200 | 996 | 1122 | 910 | 21.09 |
| | | 5 | TZM508 | 1200 | 1246 | 1122 | 1160 | 25.72 |
| 9 | 5 | 1 | TZM109 | 1350 | 246 | 1272 | 160 | 8.10 |
| | | 2 | TZM209 | 1350 | 496 | 1272 | 410 | 13.33 |
| | | 3 | TZM309 | 1350 | 746 | 1272 | 660 | 18.55 |
| | | 4 | TZM409 | 1350 | 996 | 1272 | 910 | 23.77 |
| | | 5 | TZM509 | 1350 | 1246 | 1272 | 1160 | 29.00 |
| **Mounting plates for TwinLine floor-standing cabinets** ⏚ | | | | | | | | |
| 12 | 8 | 1 | RM18 | 1800 | 246 | 1722 | 160 | 10.80 |
| | | 2 | RM28 | 1800 | 496 | 1722 | 410 | 17.80 |
| | | 3 | RM38 | 1800 | 746 | 1722 | 660 | 21.00 |
| | | 4 | RM48 | 1800 | 996 | 1722 | 910 | 31.80 |

## TwinLine Assembly with mounting plate




Mounting rail
Top view



Mounting rail for TwinLine-G
Position 3 / Installation position

Mounting rail for TwinLine-L
Position 6 / Installation position

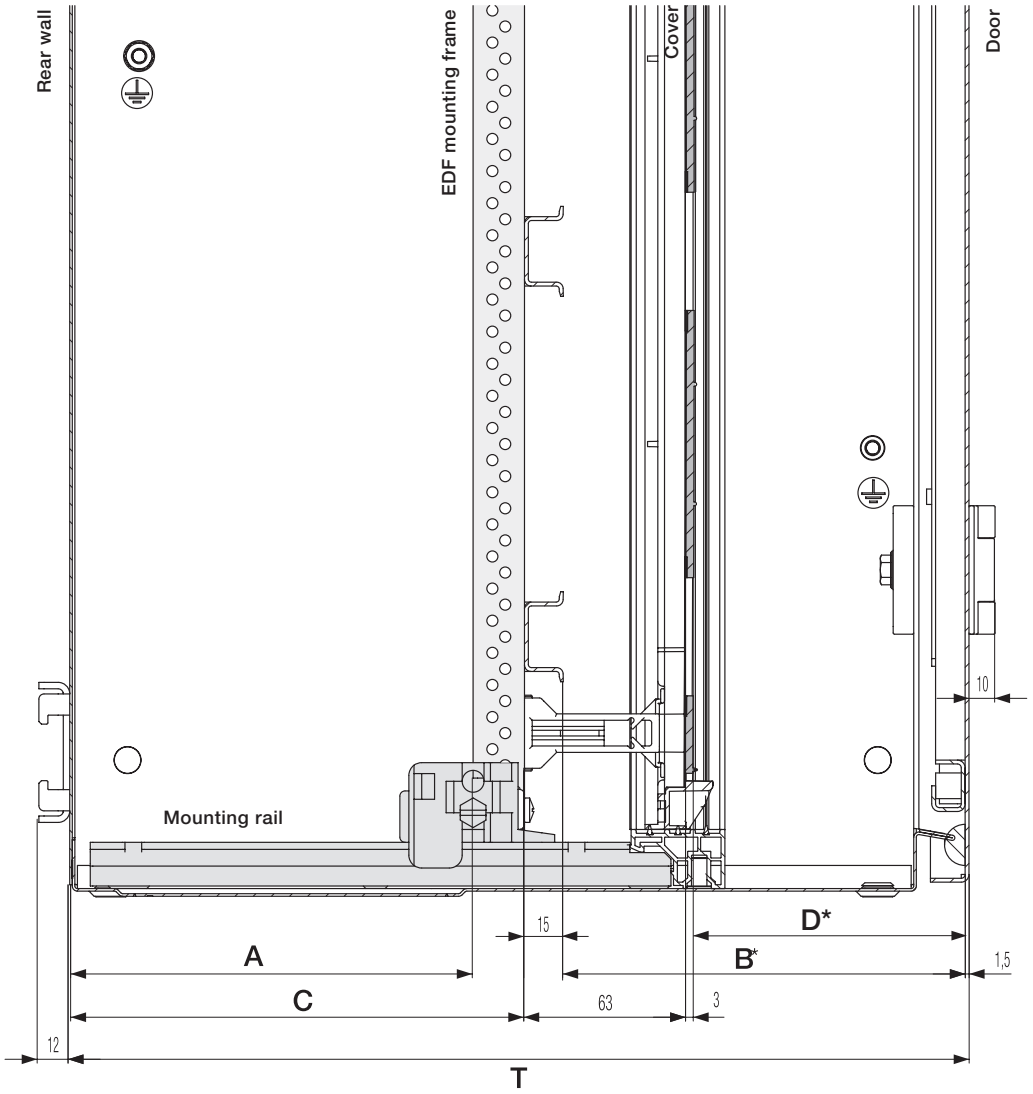
Mounting rail for TwinLine-W
Position 10 / Installation position

| | | A in mm for installation position | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cabinet series** | **Depth in mm** | **10** | **9** | **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** | **0** | **-1** | **-2** |
| TwinLine G | 225 | - | - | - | - | - | - | - | 52.5 | 65 | 77.5 | 90 | 102.5 | 115 |
| TwinLine L | 275 | - | - | - | - | 50 | 62.5 | 75 | 87.5 | 100 | 112.5 | 125 | 137.5 | 150 |
| TwinLine W | 350 | 48.5 | 61 | 73.5 | 86 | 98.5 | 111 | 123.5 | 136 | 148.5 | 161 | 173.5 | 186 | 198.5 |
| **Cabinet series** | **Depth in mm** | **B* in mm for installation position** | | | | | | | | | | | | |
| TwinLine G | 225 | - | - | - | - | - | - | - | 170 | 157.5 | 145 | 132.5 | 120 | 107.5 |
| TwinLine L | 275 | - | - | - | - | 222.5 | 210 | 197.5 | 185 | 172.5 | 160 | 147.5 | 135 | 122.5 |
| TwinLine w | 350 | 299 | 286.5 | 274 | 261.5 | 249 | 236.5 | 224 | 211.5 | 199 | 186.5 | 174 | 161.5 | 149 |

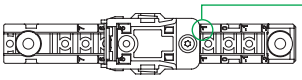
* Referred to the surface of the connection area; (see page155); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

# Quick product references
# Overall dimensions

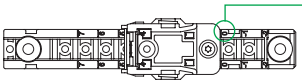
## CombiLine modules on EDF mounting frame



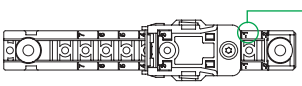

Mounting rail
Top view



Mounting rail
Position 1



Mounting rail
Position 0 / as delivered / Installation position

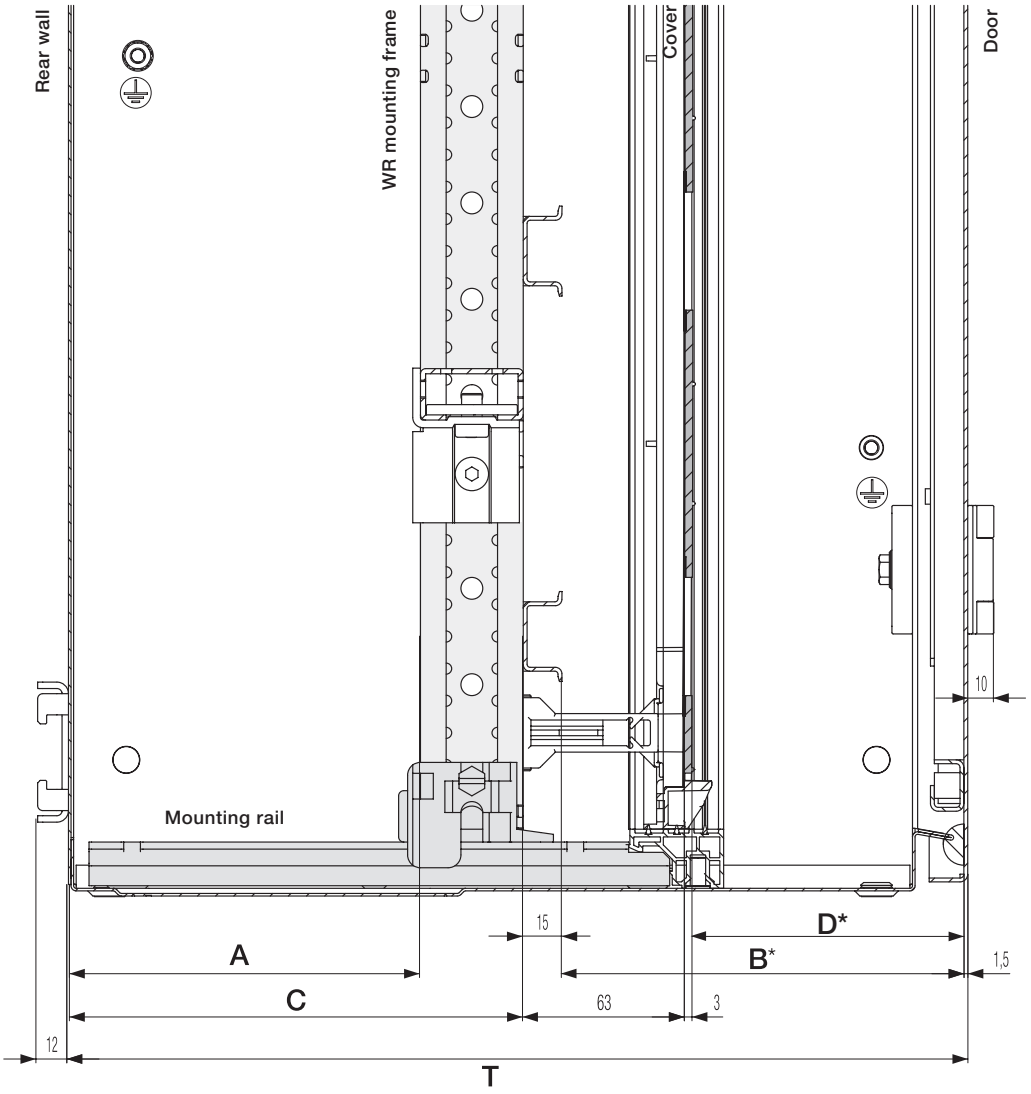


Mounting rail
Position -1

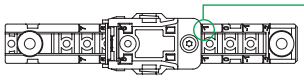
| Cabinet series | Depth in mm | A in mm for installation part position | | | B in mm for installation position* | | | C in mm for installation position | | | D in mm for installation position* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 0 | -1 | 1 | 0 | -1 | 1 | 0 | -1 | 1 | 0 | -1 |
| TwinLine-G | 225 | 60 | 72.5 | 85 | 127.5 | 115 | 102.5 | 80 | 92.5 | 105 | 76.5 | 64 | 51.5 |
| TwinLine-L | 275 | 95 | 107.5 | 120 | 142.5 | 130 | 117.5 | 115 | 127.5 | 140 | 91.5 | 79 | 66.5 |
| TwinLine-W | 350 | 143.5 | 156 | 168.5 | 169 | 156.5 | 144 | 163.5 | 176 | 188.5 | 117.5 | 105 | 92.5 |

* Referred to the surface of the connection area (see page 156); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

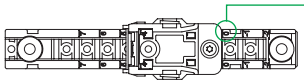
## CombiLine modules on WR mounting frame



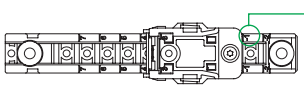

Mounting rail
Top view



Mounting rail
Position 1



Mounting rail
Position 0 / as delivered / Installation position



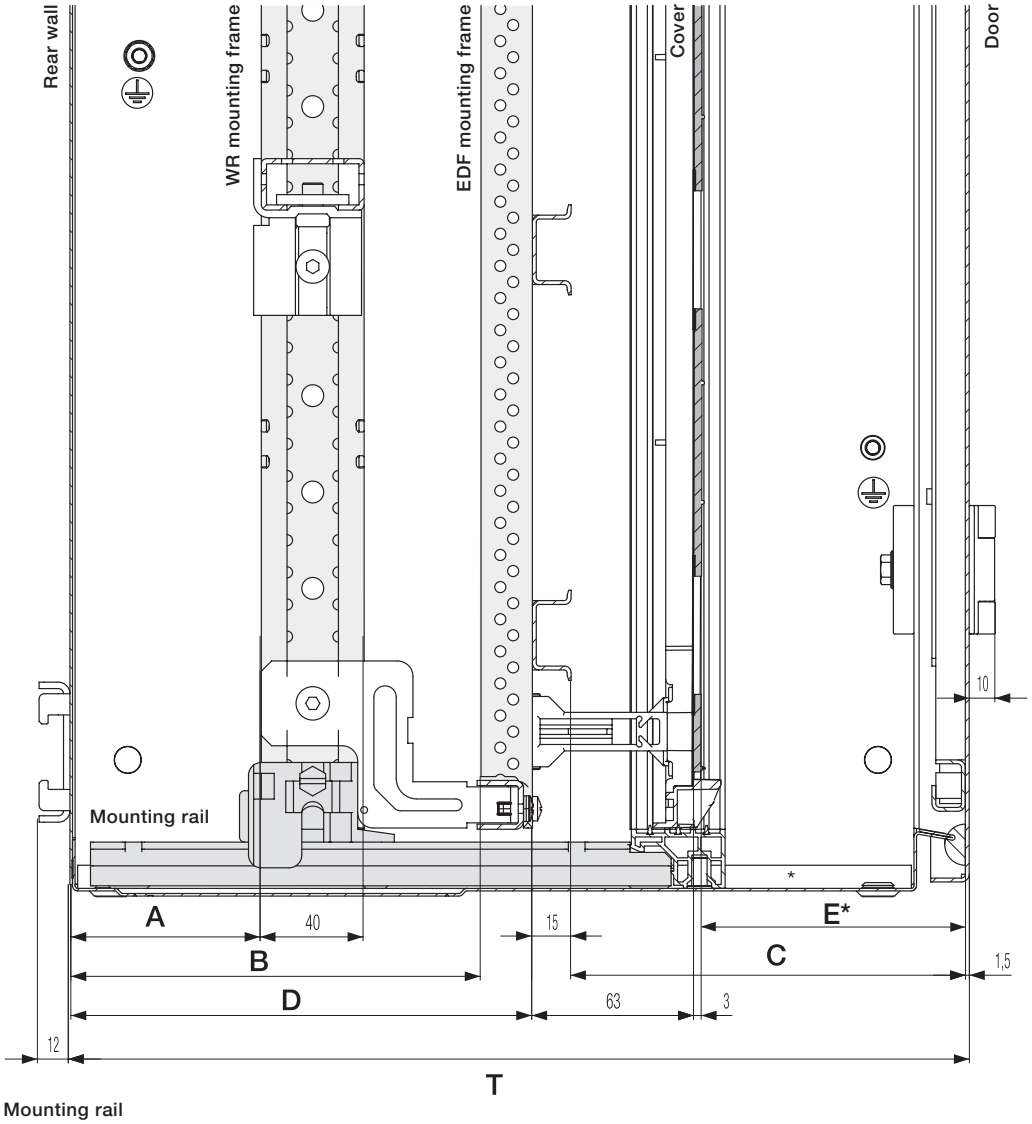
Mounting rail
Position -1

| Schrankserie | Depth in mm | A in mm for installation part position | | | B in mm for installation position* | | | C in mm for installation position | | | D in mm for installation position* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 0 | -1 | 1 | 0 | -1 | 1 | 0 | -1 | 1 | 0 | -1 |
| TwinLine-G | 225 | 40 | 52.5 | 65 | 127.5 | 115 | 102.5 | 80 | 92.5 | 105 | 76.5 | 64 | 51.5 |
| TwinLine-L | 275 | 75 | 87.5 | 100 | 142.5 | 130 | 117.5 | 115 | 127.5 | 140 | 91.5 | 79 | 66.5 |
| TwinLine-W | 350 | 123.5 | 136 | 148.5 | 169 | 156.5 | 144 | 163.5 | 176 | 188.5 | 117.5 | 105 | 92.5 |

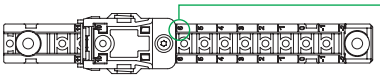
* Referred to the surface of the connection area (see page 157); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

# Quick product references
# Overall dimensions

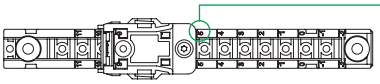
## Assembly with EDF on WR mounting frame



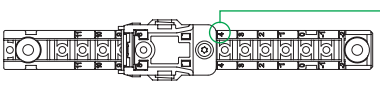

Mounting rail
Top view



Mounting rail
Position 6



Mounting rail
Position 5 / Installation position

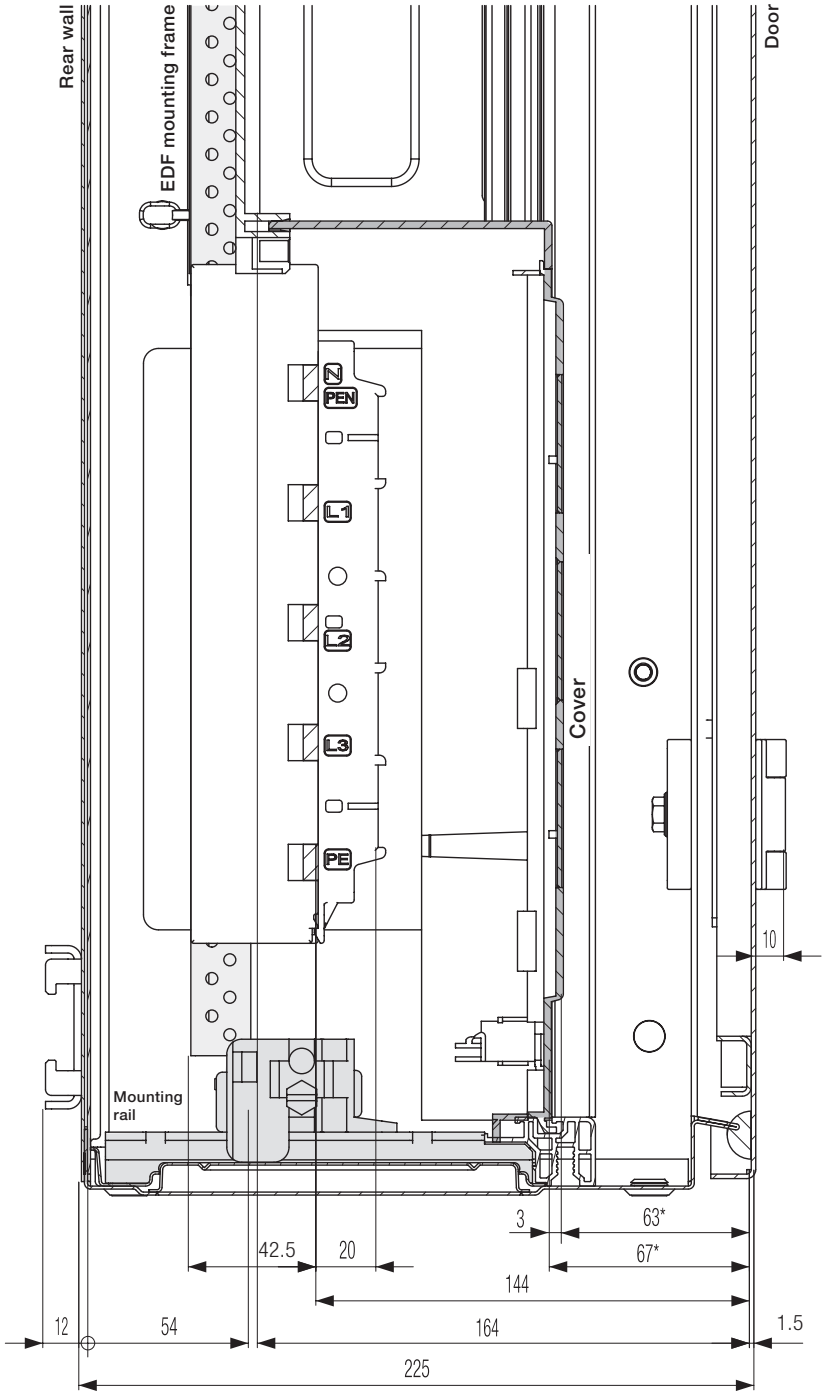


Mounting rail
Installation osition 4

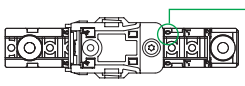
| Schrank-serie | Tiefe in mm | A in mm for installation part position | | | B in mm for installation position | | | C in mm for installation position* | | | D in mm for installation position | | | E in mm for installation position* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6 | 5 | 4 | 6 | 5 | 4 | 6 | 5 | 4 | 6 | 5 | 4 | 6 | 5 | 4 |
| TwinLine-L | 275 | 12.5 | 25 | 37.5 | 98 | 110.5 | 123 | 139.5 | 127 | 114.5 | 117.5 | 130 | 142.5 | 88.5 | 76 | 63.5 |
| TwinLine-W | 350 | 61 | 73.5 | 86 | 146.5 | 159 | 171.5 | 165.5 | 153 | 140.5 | 166.5 | 179 | 191.5 | 114.5 | 102 | 89.5 |

* Referred to the surface of the connection area (see page 158); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

## Assembly with meter panel for TwinLine-G ⊡




**Mounting rail**
**Top view**



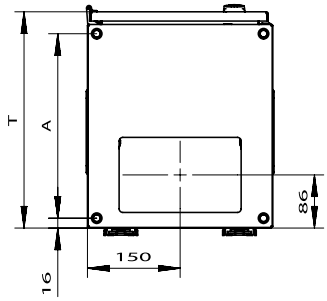
**Mounting rail**
**Position 0 / as delivered**

* Referred to the surface of the connection area (see page 159); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

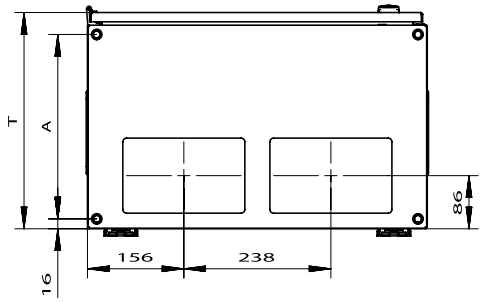
# Quick product references
# Overall dimensions

## TwinLine Top view / side flange knockout, top and bottom

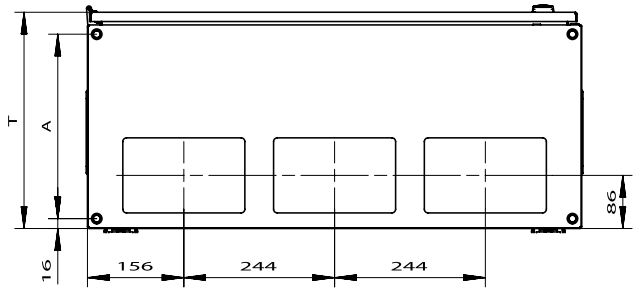
TG1...
TL1...
TW1...




TG2...
TL2...
TW2...



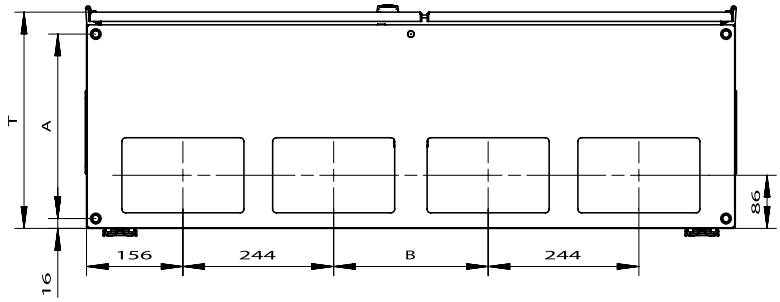

TG3...
TL3...
TW3...




TG4...
TL4...
TW4....

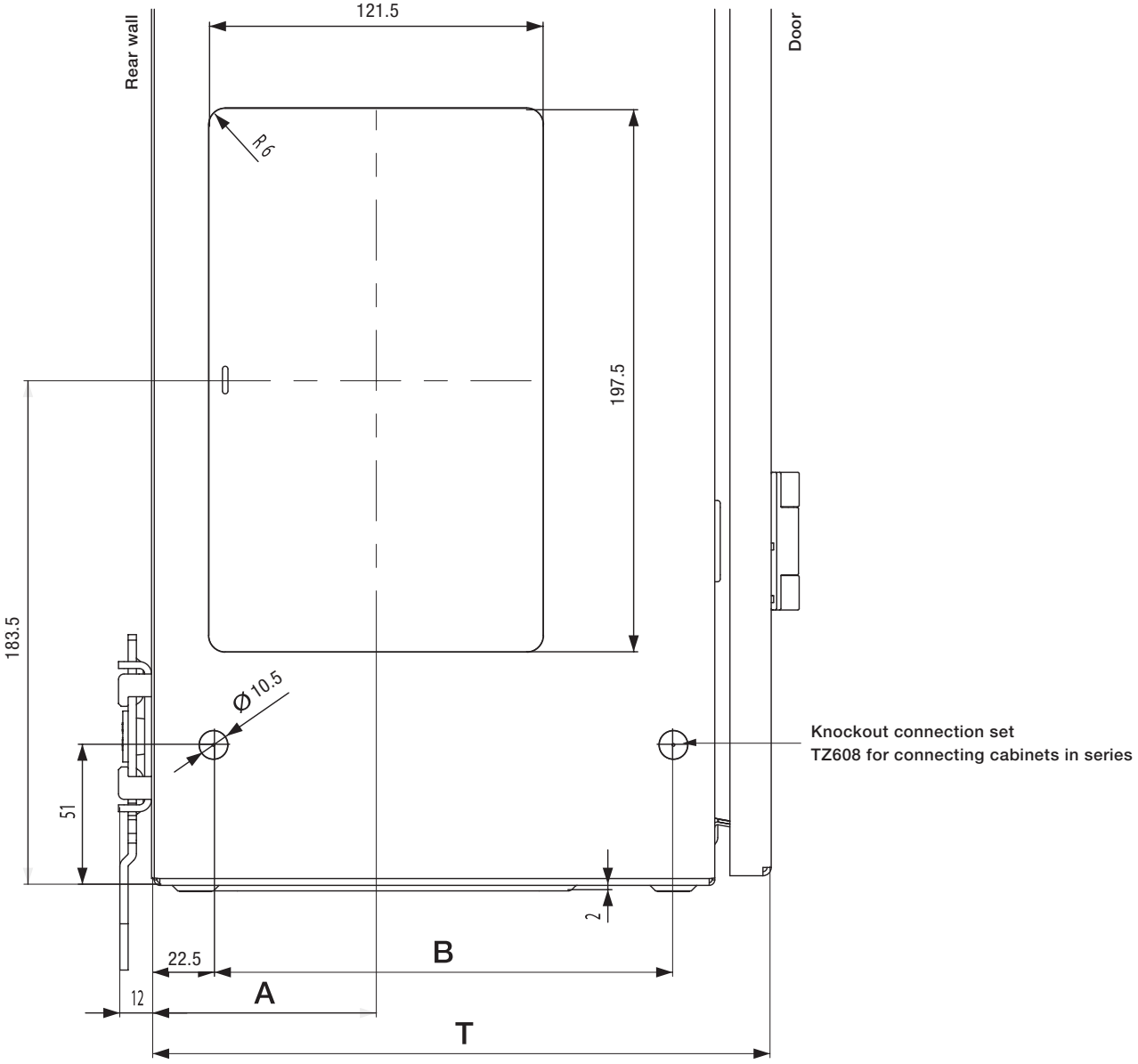
TG5...
TL5...
TW5....

TG6...
TL6...
TW6....




| Cabinet series | Depth in mm | A in mm | B in mm / 4 panel wide | B in mm / 5 panel wide | B in mm / 6 panel wide |
|---|---|---|---|---|---|
| TwinLine-G | 225 | 173.5 | 1 x 250 (250) | 2 x 250 (500) | 3 x 250 (750) |
| TwinLine-L | 275 | 223.5 | | | |
| TwinLine-W | 350 | 298.5 | | | |

## TwinLine Side view / side flange knockout, top and bottom




| Cabinet series | Depth in mm | A in mm | B in mm |
|---|---|---|---|
| TwinLine-G | 225 | 80.5 | 167 |
| TwinLine-L | 275 | 106.5 | 217 |
| TwinLine-W | 350 | 154.5 | 292 |

# Quick product references
## MCBs and RCDs worldwide marks and approvals

This is the present situation regarding worldwide marks and approvals for ABB System pro *M* compact range devices.
Although some products already obtained some approvals or certificates, they don't necessarily bear the related marks on the product.

| | AENOR - Spain | STB - Belarus | BBJ - Poland | BSMI - Taiwan |
|---|---|---|---|---|
| **S 200** | ■ S 200 | | ■ S 200 | |
| **S 200 M** | ■ S 200 M | | ■ S 200 M | |
| **S 200 M UC** | | | | |
| **S 200 P** | ■ S 200 P | | ■ S 200 P | |
| **S 200 S** | | | | |
| **S 200 U** | | | | |
| **S 200 UP** | | | | |
| **S 200 UDC** | | | | |
| **S 200 PR** | | | | |
| **SU 200 PR** | | | | |
| **SN 201** | | | | |
| **S 280 80 - 100 A** | | | | |
| **S 700** | | | | |
| **S 750 DR** | | | | |
| **S400M** | | | | |
| **S 800** | | | | |
| **S 500 -K, S 500UC-K** | | | | |
| **F 200** | ■ F 200 | ■ F 200 | | ■ F 200 ③ |
| **F-ATI Test** | | | | |
| **F-ARI Test** | | | | |
| **DDA 200** | | | | |
| **DS 200** | | ■ DS 200 | | |
| **DS201** | | ■ DS201 | | |
| **DS202C** | | ■ DS202C | | |
| **DDA 800** | | ■ DDA 800 | | |
| **SN201-S, SN201-IH** | | | | |
| **DS401/402** | | | | |

**The F 200 range has obtained the EPD (Environmental Product Declaration), according to ISO 14040.**

EPD

This product/service has a
**CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION**
describing information about environmental performance, contents and recycling which has been controlled and verified by Rina according to MSR 1999:2
Registration number: S-P 00080 and S-P 00081
More information on the Internet : http//www.environdec.com

**Legend:**

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection

③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

| CCC - China | CEBEC - Belgium | CERTIF - Portugal | CSA - Canada | DEMKO - Denmark | EZU - Czech Rep. | FIMKO - Finland |
|---|---|---|---|---|---|---|
| ■ S 200 | ■ S 200 | ■ S 200 | | ■ S 200 | ■ S 200 | ■ S 200 |
| ■ S 200 M | ■ S 200 M | ■ S 200 M | ■ S 200 M ① | ■ S 200 M | ■ S 200 M | ■ S 200 M |
| | | | | | | |
| ■ S 200 P | ■ S 200 P | ■ S 200 P | ■ S 200 P (≤ 25 A) ① | ■ S 200 P | ■ S 200 P | ■ S 200 P |
| | | | | | | |
| ■ S 200 U | | | ■ S 200 U ② | | | |
| ■ S 200 UP | | | ■ S 200 UP ② | | | |
| | | | ■ S 200 UDC ② | | | |
| | | | ■ S 200 PR ① | | | |
| | | | ■ SU 200 PR ② | | | |
| ■ SN 201 | | | | | | |
| ■ S 280 80 - 100 A | | | | | | |
| | | | | | | |
| | | | | | | |
| ■ S400M ⑲ | | | | | | |
| ■ S 800 | | | | | | |
| ■ S 500-K, S 500UC-K | | | | | | |
| ■ F 200 ③ | ■ F 200 | ■ F 200 | | | | ■ F 200 |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| ■ DS201 | ■ DS201 | | | | | |
| | | | | | | |
| | | | | | | |
| ■ SN201-S, SN201-IH | | | | | | |
| ■ DS401/402 | | | | | | |

# Quick product references
## MCBs and RCDs worldwide marks and approvals

| | EAC - Russia | GOST - Ucraina | IMQ - Italy | IMQ CSV - Italy |
|---|---|---|---|---|
| **S 200** | ■ S 200 | | ■ S 200 | |
| **S 200 M** | ■ S 200 M | | ■ S 200 M | |
| **S 200 M UC** | | | | |
| **S 200 P** | ■ S 200 P | | ■ S 200 P | |
| **S 200 S** | | | ● S 200 S | |
| **S 200 U** | | | | |
| **S 200 UP** | | | | |
| **S 200 UDC** | | | | |
| **S 200 PR** | | | | |
| **SU 200 PR** | | | | |
| **SN 201** | | | ■ SN 201 | |
| **S 280 80 - 100 A** | ■ S 280 80 - 100 A | | ■ S 280 80 - 100 A | |
| **S 750 DR** | ■ S 750 DR | | | |
| **S400M** | ■ S400M | | | |
| **S 800** | ■ S 800 | | | |
| **F 200** | ■ F 200 | ■ F 200 | ■ F 200 | |
| **F-ATI Test** | | | | |
| **F-ARI Test** | | | | ■ F-ARI Test |
| **DDA 200** | ■ DDA 200 | ■ DDA 200 | ■ DDA 200 | |
| **DS 200** | ■ DS 200 | ■ DS 200 | ■ DS 200 | |
| **DS201** | ■ DS201 | ■ DS201 | ■ DS201 | |
| **DS202C** | ■ DS202C | ■ DS202C | ■ DS202C | |
| **DS203NC** | ■ DS203NC | | ■ DS203NC | |
| **DS 271** | | ■ DS 271 | | |
| **DDA 800** | | ■ DDA 800 | | |
| **F2C..** | ■ F2C.. | | | |
| **S 290 accessories** | ■ S 290 accessories | | | |
| **DS401/402** | ■ DS401/402 | | | |

**Legend:**

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection

③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR

⑥ not available for F200 left neutral

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

| | IRAM - Argentina | KEMA - Netherland | LCIE - France | NEMKO - Norway | OVE - Austria | HDB/PSB - Singapore | SABS - South Africa |
|---|---|---|---|---|---|---|---|
| | | ■ S 200 | ■ S 200 | ■ S 200 | ■ S 200 | ■ S 200 | ■ S 200 |
| | | ■ S 200 M | ■ S 200 M | ■ S 200 M | ■ S 200 M | ■ S 200 M | ■ S 200 M |
| | | | | | | | |
| | | ■ S 200 P | ■ S 200 P | ■ S 200 P | ■ S 200 P | | |
| | | ● S 200 S | ■ S 200 S | | ■ S 200 S | | |
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| | | | | | | | |
| | | ■ SN 201 | | | | | |
| | | | ■ S 280 80 - 100 A | | | | |
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| | | | | | | | |
| | | | | | | | |
| | ■ F 200 ③ | ■ F 200 | ■ F 200 | ■ F 200 | ■ F 200 | ■ F 200 ③ | ■ F 200 ③ |
| | | | | | | | |
| | | | | | | | |
| | | | ■ DDA 200 | | | | |
| | | | ■ DS 200 | | | | |
| | | ■ DS201 | | | ■ DS201 | | |
| | | | ■ DS202C | | | | |
| | | ■ DS203NC | | | | | |
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# Quick product references
## MCBs and RCDs worldwide marks and approvals

| | SEMKO - Sweden | SEV - Switzerland | SIQ - Slovenia | SIRIM - Malaysia |
|---|---|---|---|---|
| **S 200** | ■ S 200 | ■ S 200 | ■ S 200 | ■ S 200 |
| **S 200 M** | ■ S 200 M | ■ S 200 M | ■ S 200 M | ■ S 200 M |
| **S 200 M UC** | | | | |
| **S 200 P** | ■ S 200 P | ■ S 200 P | ■ S 200 P | |
| **S 200 S** | | ● S 200 S | | |
| **S 200 U** | | | | |
| **S 200 UP** | | | | |
| **S 200 UDC** | | | | |
| **S 200 PR** | | | | |
| **SU 200 PR** | | | | |
| **SN 201** | | | | |
| **S 280 80 - 100 A** | | | | |
| **S 700** | | | | |
| **S 750 DR** | | | | |
| **S400E** | | ■ S400E | | |
| **S400M** | | ■ S400M | | |
| **S 800** | | ■ S 800 | | |
| **S 500 -K, S 500UC-K** | | | | |
| **F 200** | | ■ F 200 | | ■ F 200 ③ |
| **F 204 B** | | | | |
| **F-ATI Test** | | | | |
| **F-ARI Test** | | | | |
| **DDA 200** | | | | |
| **DS 200** | | | | |
| **DS201** | | ■ DS201 | | |
| **DS202C** | | | | |
| **DS203NC** | | | | |
| **DS 271** | | | | |
| **DDA 800** | | | | |
| **DS401/402** | ■ DS401/402 | ■ DS401/402 | | |

**Legend:**

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection

③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR

⑥ not available for F200 left neutral

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

| | RCM - Australia | UL - USA | VDE - Germany | |
|---|---|---|---|---|
| | ■ S 200 | ■ S 200 ① | ■ S 200 | |
| | ■ S 200 M | ■ S 200 M ① | ■ S 200 M | |
| | | | ■ S 200 M UC | |
| | ■ S 200 P | ■ S 200 P ① | ■ S 200 P | |
| | | | ■ S 200 S | |
| | | ■ S 200 U ② | | |
| | | ■ S 200 UP ② | | |
| | | ■ S 200 UDC ② | | |
| | | ■ S 200 PR ① | ■ S 200 PR | |
| | | ■ SU 200 PR ② | ■ SU 200 PR | |
| | ■ SN 201 | | | |
| | ■ S 280 80 - 100 A | | | |
| | | | ■ S 700 | |
| | | | ■ S 750 DR | |
| | | | ■ S400E | |
| | | | ■ S400M ⑲ | |
| | | ■ S 800 | | |
| | | ■ S 500-K, S 500UC-K | | |
| | ■ F 200 ③ | ■ F 200 ⑥ | ■ F 200 | |
| | | | ■ F 204 B | |
| | | | ■ F-ATI Test | |
| | | | | |
| | | | | |
| | | | ■ DS 200 | |
| | ■ DS201 | | ■ DS201 | |
| | ■ DS202C | | ■ DS202C | |
| | | | ■ DS203NC | |
| | ■ DS 271 | | | |
| | | | | |
| | | | ■ DS401/402 | |

# Quick product references
## MCBs and RCDs worldwide marks and approvals

| | RIVER | MARINE | MARINE | MARINE |
|---|---|---|---|---|
| | RRR - Russia | ABS - USA | DNV - Norway | GL - Germany |
| **S 200** | | ■ S 200 | ■ S 200 | ■ S 200 |
| **S 200 M** | | ■ S 200 M | ■ S 200 M | ■ S 200 M |
| **S 200 MUC** | | | | |
| **S 200 P** | | | ■ S 200 P | |
| **S 200 S** | | | | |
| **S 200 U** | | | | |
| **S 200 UP** | | | | |
| **S 200 UDC** | | | | |
| **S 200 PR** | | | | |
| **SU 200 PR** | | | | |
| **SN 201** | | | | |
| **S 280 80 - 100 A** | | | ■ S 280 80-100 A | |
| **S 700** | | | | |
| **S 750 DR** | | | | |
| **S400E** | | | | |
| **S400M** | | | ■ S400M | ■ S400M |
| **S 800** | | | ■ S 800 | ■ S 800 |
| **S 500 -K, S 500UC-K** | | | ■ S 500-K ④ | |
| **F 200** | ■ F 200 | | | |
| **F 204 B** | | | | |
| **F-ATI Test** | | | | |
| **F-ARI Test** | | | | |
| **DDA 200** | | | | |
| **DS 200** | ■ DS 200 | | | |
| **DS201** | ■ DS201 | ■ DS201, DS201M | | ■ DS201, DS201M |
| **DS202C** | ■ DS202C | ■ DS202C M | | ■ DS202C M |
| **DS203NC** | | | | |
| **DS 271** | | | | |
| **DDA 800** | | | | |

**Legend:**

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection

③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR

⑥ not available for F200 left neutral

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

| MARINE | MARINE | MARINE |
|---|---|---|
|  |  |  |
| **LRS - Great Britain** | **RINA - Italy** | **RMRS - Russia** |
|  |  |  |
| ■ S 200 | ■ S 200 | ■ S 200 |
| ■ S 200 M | ■ S 200 M | ■ S 200 M |
| | | |
| ■ S 200 P | ■ S 200 P | ■ S 200 P |
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| ■ S 800 | ■ S 800 | ■ S 800 |
| | | ■ S 500-K ④ |
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| | ■ DS202C ⑤ | |
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# Quick product references
## MDRCs worldwide marks and approvals

| | BSI UK | CCC China | CEBEC Belgium | ENEC Europe | EAC Russia | GOST Russia | GOST Ucraina | IMQ Italy | KEMA Netherland | NF France |
|---|---|---|---|---|---|---|---|---|---|---|
| **OVR** | | | | | ■ OVR T1 and T2 | ■ OVR T1 and T2 | | | | ■ OVR T1 and T2 |
| **RD** | | | | | | ■ RD | ■ RD | | | |
| **TR-TRM** | | | | | | ■ TR-TRM | ■ TR-TRM | | | |
| **E 90** | | ■ E90 ③, E90h ③ E90 PV | | | ■ E90, E90h, E90 PV | | ■ E90, E90h, E90 PV, E90 CC | ■ E90 ③, E90h ③ | | ■ E90 ⑤, E90h ⑥ |
| **E90 50/125** | | ■ E90 50/125 | | | ■ E90 50/125 | ■ E90 50/125 | | | | |
| **E90** | | | | | | | | | | |
| **E 200** | | ■ E 200 | | | ■ E 200 | | | | ■ E 200 | |
| **SD 200** | | ■ SD 200 | | | ■ SD 200 | | | | ■ SD 200 | |
| **SHD 200** | | ■ SHD 200 | | | ■ SHD 200 | | | | ■ SHD 200 | |
| **E210** | | ■ E210 ② | | | | ■ E210 | | | | |
| **ESB** | | ■ ESB | | | | | | | | |
| **EN** | | ■ EN | | | | | | | | |
| **E290** | | | | | ■ E290 ⑨ | | | | | |
| **E 259** | | | | | | ■ E 259 | ■ E 259 | | | |
| **E 250** | | | | | | ■ E 250 | ■ E 250 | | | |
| **E 260** | | | | | | ■ E 260 | | | | |
| **E 234** | | ■ E 234 | | | | ■ E 234 | | | | |
| **AT** | | | | | | ■ AT | ■ AT | | | |
| **D Line** | | | | | | ● D | | | | |
| **E 232** | | | | | | ■ E 232 | | | | |
| **T line** | | | | | | ■ T line | ■ T line | | | |
| **THS** | | | | | | ■ THS | | | | |
| **RAL** | | | | | | ■ RAL | ■ RAL | | | |
| **LSS1/2** | | | | | | ■ LSS1/2 | ■ LSS1/2 | | | |
| **RH/RL** | | | | | | ■ RH/RL | ■ RH/RL | | | |
| **SQZ3** | | | | | | ■ SQZ3 | ■ SQZ3 | | | |
| **LEE 230** | | | | | | ■ LEE 230 | ■ LEE 230 | | | |

**Legend:**
■ Approved whole range
● Waiting for approval
① Except for ESB/EN 20
② For series E219 CCC mark not needed
③ Just no LED versions
⑤ Version without neutral
⑥ Dedicated rang with neutral on left
⑦ IMQ available for TM up to 30 VA
⑧ VDE available only on M1175 (standard grey version) and M1175-C (with cover)
⑨ E291S in preparation: will be available in 2016

| | SEV Swiss | UL/CSA USA/Canada | UL/CSA USA/Canada | VDE Germany | RCM Australia | IRAM Argentina | BV/F France | GL/D Germany | LRS Great Britain | RINA Italy | RMRS Russia |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ● OVR T2 | ■ OVR T2 40 275 | | | | | | | |
| | | ■ E90 PV, E90 CC | ■ E90 | | | | ■ E90, E90h, E90 PV | | ● E90 ③, E90h ③ | ■ E90 ③, E90h ③ | |
| | | | ■ E90 50/125 | | | | ■ E90 50/125 | | ■ E90 50/125 | ■ E90 50/125 | |
| | | ■ E90 J | | | | | | | | | |
| | | | | ■ E 200 | | | | | | | |
| | | | | ■ SD 200 | | | | | | | |
| | | | | ■ SHD 200 | | | | | | | |
| | | | ■ E210 | ■ E210 | | | | | | | |
| | | | ■ ESB | | | | ■ ESB ① | ■ ESB ① | | | |
| | | | ■ EN | | | | ■ EN ① | ■ EN ① | | | |
| | | | | ■ E290 ⑨ | | | | | | | |
| | | | | | | | | ■ E 260 | | | |
| | | | ■ E 234 | | | | | | | | |
| | | | | ■ E 232 | | | | | | | |

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| **CT / CTA / TRFM** | | | | | | ■ CT/CTA/ TRFM | ■ CT/CTA/ TRFM | | | |
| **MCA/MCV** | | | | | | ■ MCA/MCV | | | | |
| **HMT** | | | | | | ■ HMT | | | | |
| **TM** | | | | | | ■ TM | | ■ TM ⑦ | | |
| **TS** | | | | | | ■ TS | | | | |
| **TS-C** | | | | ■ TS-C | | ■ TS-C | | | | |
| **TSM/TSR** | | | | | | ■ TSM/TSR | ■ TSM/TSR | | | |
| **SM/RM** | | | | | | ■ SM/RM | ■ SM/RM | | | |
| **M1170** | | | | | | ■ M1170 | | | | |
| **M1173** | | | | | | ■ M1173 | ■ M1173 | ■ M1173 | | |
| **M1174** | | | ■ M1174 | | | ■ M1174 | ■ M1174 | | | ■ M1174 |
| **M1175** | | | | | | ■ M1175 | ■ M1175 | | | |
| **M1176** | | | | | | | | | | |
| **M1363** | ■ M1363 | | | | | | | | | |
| **M1011** | | | | | | | | | | |
| **M2071** | | | | | | | | | | |
| **M1011** | | | | | | | | | | |
| **TM-C, TM-I, TM-S** | | | | ■ TM-C, TM-I, TM-S | | ■ TM-C, TM-I, TM-S | | | | |

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| | | | | ■ M1175 ⑧ | | | | | | | |
| | | | | | ● M1176 | | | | | | |
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| | ■ M1011 | | | | | | | | | | |
| | | | | | | ● M2071 | | | | | |
| | | | | | | | | | | | |
| | | | ■ TM-C, TM-I, TM-S | | | | | | | | |

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