

Electrical installation solutions for buildings – Technical details

RCDs

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RCDs technical details

Functions and classification criteria for RCDs

Functions and classification criteria for RCDs

A residual current operated circuit-breaker is an amperometric protection device which is tripped when the system leaks a significant current to earth.

This device continuously calculates the vector sum of the single-phase or three-phase system line currents and while the sum is equal to zero allows electricity to be supplied. This supply is rapidly interrupted if the sum exceeds a value preset according to the sensitivity of the device.

Residual current operated circuit-breakers can be classed according to four parameters:

- type of construction
- detectable wave form
- tripping sensitivity
- tripping time.

Depending on the type of construction, RCDs may be classed as:

- RCBOs (magnetothermic with overcurrent protection)
- RCCBs (without overcurrent protection releaser incorporated)
- RCD blocks.

RCBOs combine, in a single device, the residual current function and the overcurrent protection function typical of MCBs. RCBOs are tripped by both current leakage to earth and overloads and short-circuits and they are self-protecting up to a maximum short-circuit current value indicated on the label.

RCCBs are only sensitive to current leakage to earth. They must be used in series with an MCB or fuse which protects them from the potentially damaging thermal and dynamic stresses of any overcurrents.

These devices are used in systems already equipped with MCBs which preferably limit the specific energy passing through, also acting as the main disconnecting switches upstream of any derived MCBs (e.g.: domestic consumer unit).

RCD blocks are residual current devices suitable for assembly with a standard MCB. IEC/EN 61009 app. G only allows assembly of RCBOs once on site, that is to say outside the factory, using adaptable RCD blocks and the appropriate MCBs. Any subsequent attempts to separate them must leave permanent visible damage. The residual current operated circuit-breaker obtained in this way maintains both the electrical characteristics of the MCB and those of the RCD block.

According to the wave form of the earth leakage currents they are sensitive to, the RCDs may be classed as:

- AC type (for alternating current only)
- A type (for alternating and/or pulsating current with DC components)
- B type (for alternating and/or pulsating current with DC components and continuous fault current).

AC type RCDs are suitable for all systems where users have sinusoidal earth current.

They are not sensitive to impulsive leakage currents up to a peak of 250 A (8/20 wave form) such as those which may occur due to overlapping voltage impulses on the mains (e.g.: insertion of fluorescent bulbs, X-ray equipment, data processing systems and SCR controls).

A type RCDs are not sensitive to impulsive currents up to a peak of 250 A (8/20 wave form).

They are particularly suitable for protecting systems in which the user equipment has electronic devices for rectifying the current or phase cutting adjustment of a physical quantity (speed temperature, light intensity, etc.) supplied directly by the mains without the insertion of transformers and insulated in class I (class II is, by definition, free of faults to earth). These devices may generate a pulsating fault current with DC components which the A type RCD can recognise.

RCDs technical details

Functions and classification criteria for RCDs

B type RCDs are recommended for use with drives and inverters for supplying motors for pumps, lifts, textile machines, machine tools, etc., since they recognise a continuous fault current with a low level ripple. Type AC, A and B RCDs comply with IEC/EN 61008/61009, moreover type B is covered by IEC 62423 Ed. 1 and by IEC/EN 60755 for residual current operated protective devices. According to tripping sensitivity ($I_{\Delta n}$ value), RCDs may be divided into the following categories:

- low-sensitivity ($I_{\Delta n} > 0.03$ A), not suitable for protection against direct contacts; co-ordinated with the earth system according to the formula $I_{\Delta n} < 50/R$, to provide protection against indirect contacts;
- high-sensitivity ($I_{\Delta n}$: 0.01...0.03 A), or “physiologically sensitivity” for protection against indirect contacts, with simultaneous additional protection against direct contacts.
- against fire (up to 500 mA) according to IEC/EN 60364

Residual current sensitivity and environment

Household and special environments



$I_{\Delta n}$
 ≤ 30 mA

High-sensitivity or physiologically sensitive RCDs

IEC/EN 60364 makes the use of these devices mandatory in all bathrooms, showers and private and public swimming pools and environments in which plugs and sockets may be installed without insulating or low safety voltage transformers.

Laboratories, service industry and small industry



$I_{\Delta n}$
from 30 mA
to 500 mA

Large service industry and industrial complex



$I_{\Delta n}$
from 500 mA
to 1000 mA

Low-sensitivity RCDs

According to their tripping time, RCDs can be classed as:

- instantaneous (or rapid or general)
- type S selective (or - incorrectly - delayed).

Selective RCDs (RCBOs - RCCBs or RCD-blocks) have a delayed tripping action and are installed upstream of other rapid residual current operated circuit-breakers to guarantee selectivity and limit the power out only to the portion of the system affected by a fault.

RCDs technical details

Functions and classification criteria for RCDs

The tripping time is not adjustable. It is set according to a predetermined time – current characteristic with an intrinsic delay for small currents, tending to disappear as the current grows. IEC/EN 61008 and 61009 establish the tripping times relative to the type of RCD and the $I_{\Delta n}$.

| Type AC | I_n [A] | I_{Δ} [A] | Tripping times (s) x currents | | | |
|---------------|-----------|------------------|-------------------------------|-----------------------|-----------------------|-----------|
| | | | $1 \times I_{\Delta}$ | $2 \times I_{\Delta}$ | $5 \times I_{\Delta}$ | 500A |
| Generic | Any | Any | 0.3 | 0.15 | 0.04 | 0.04 |
| S (selective) | Any | >0.030 | 0.13-0.5 | 0.06-0.2 | 0.05-0.15 | 0.04-0.15 |

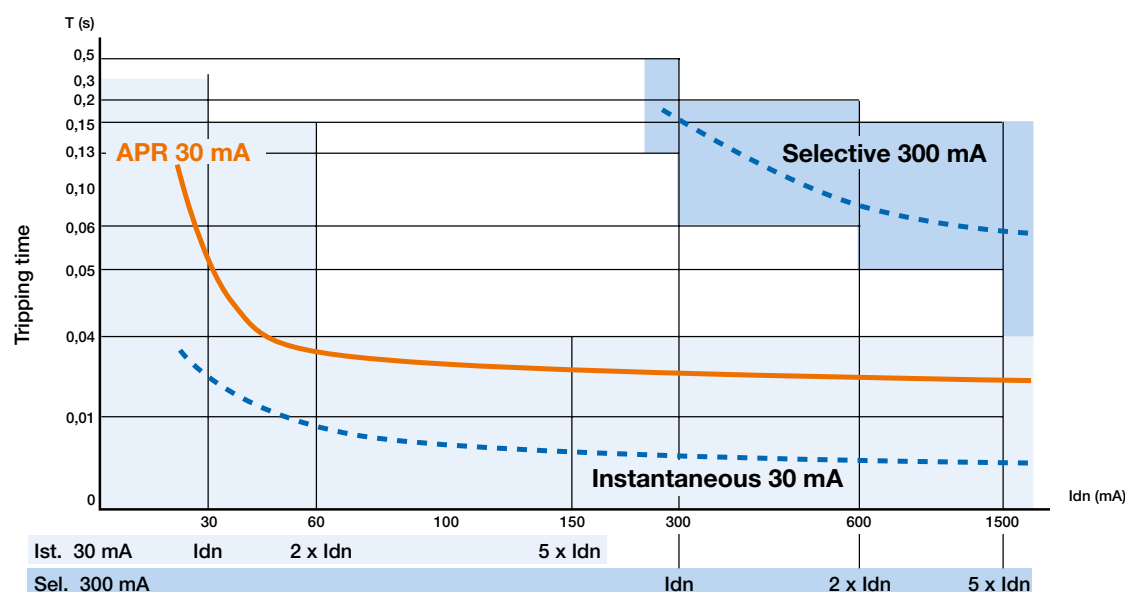
The indicated maximum tripping times are also valid for A type RCDs, but increasing the current values of factor 1.4 for RCDs with $I_{\Delta n} > 0.01$ A and of factor 2 for RCDs with $I_{\Delta n} \leq 0.01$ A.

The range of ABB RCDs also includes AP-R (anti-disturbance) devices which trip according to the limit times allowed by the Standards for instantaneous RCDs. This function is due

to the slight tripping delay (approx. 10 ms) relative to the standard instantaneous ones.

The graph shows the comparison of the qualitative tripping curves for:

- a 30 mA instantaneous RCD
- a 30 mA AP-R instantaneous RCD
- a 100 mA selective RCD (type S)



Note: this is a qualitative chart; it is referred only to industrial frequencies of 50-60 Hz.

RCDs technical details

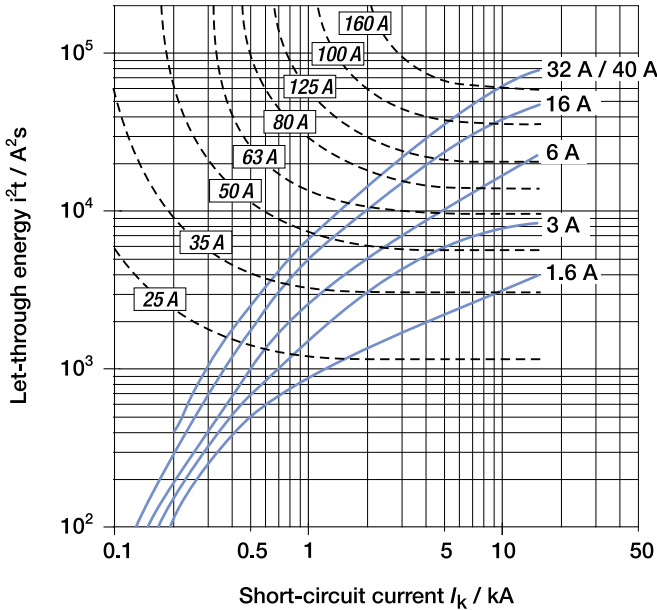
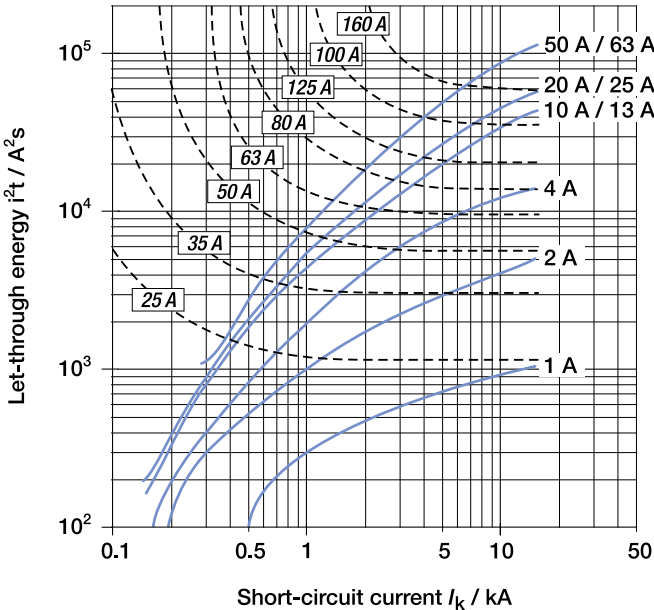
Limitation of specific let-through energy I^2t

I^2t diagrams - Specific let-through energy value I^2t

The I^2t curves give the values of the specific let-through energy expressed in A^2s (A=amps; s=seconds) in relation to the perspective short-circuit current (I_{rms}) in kA.

DS 200-DS 200 M, characteristics B and C

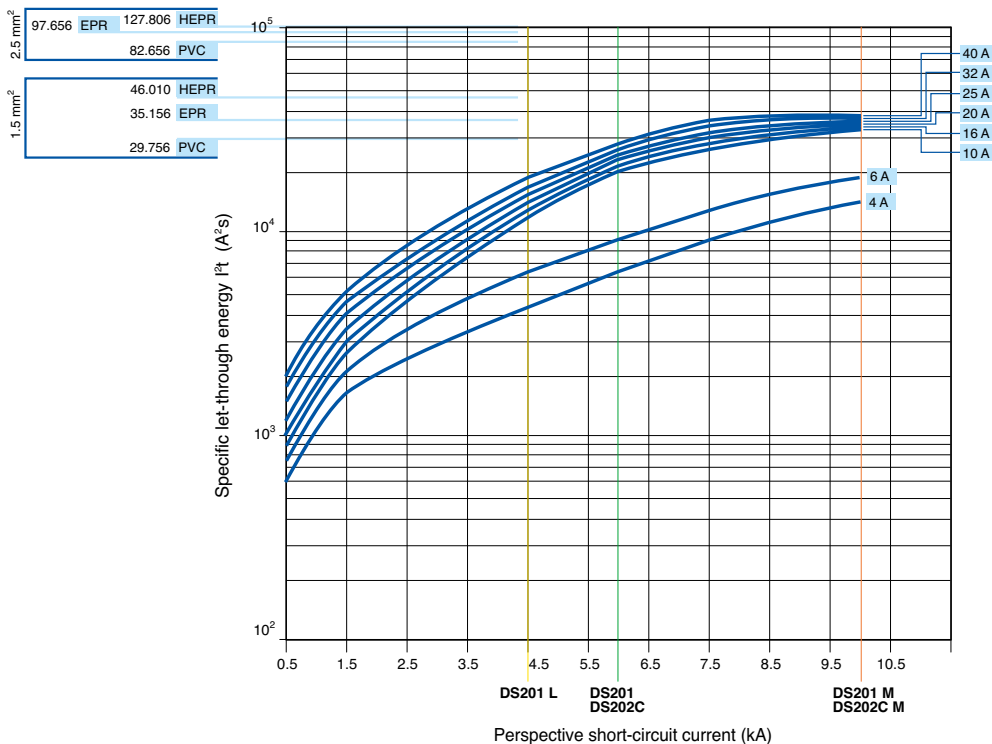
230/400 V let-through energy



DS201 L - DS201 - DS201 T - DS201 M

DS202C - DS202C M, characteristics B and C

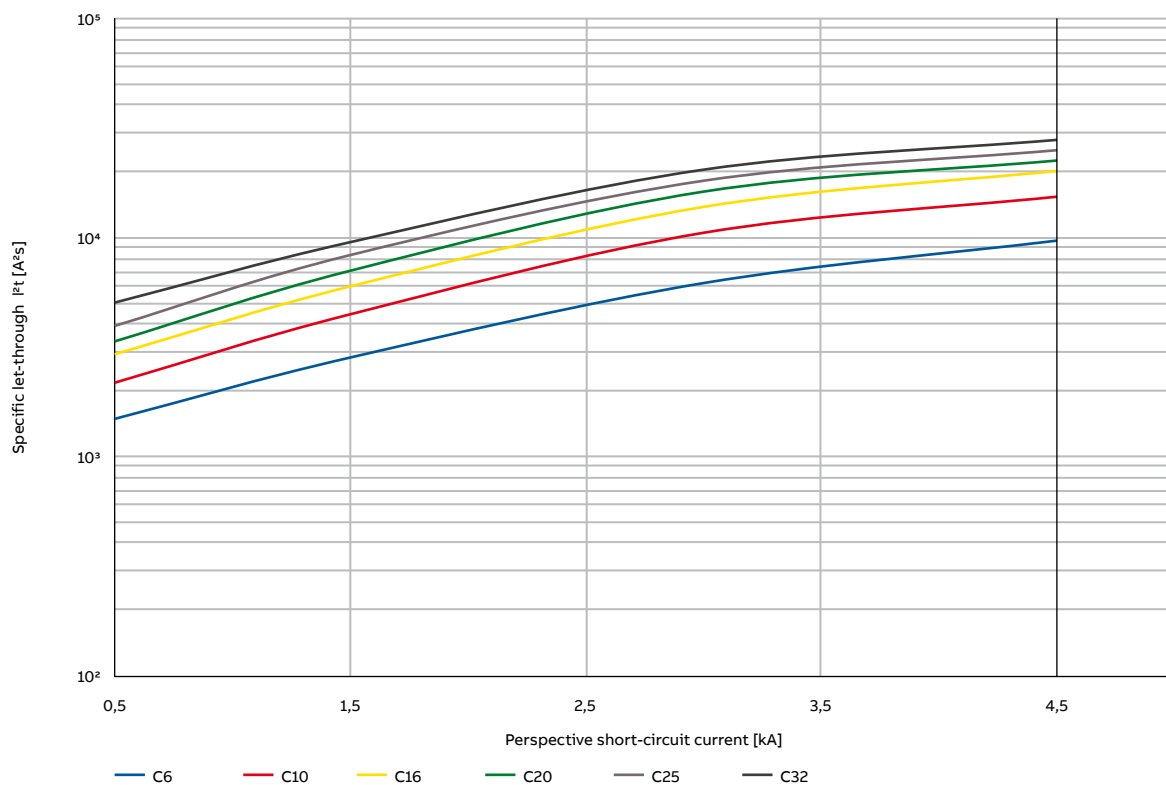
230 V let-through energy



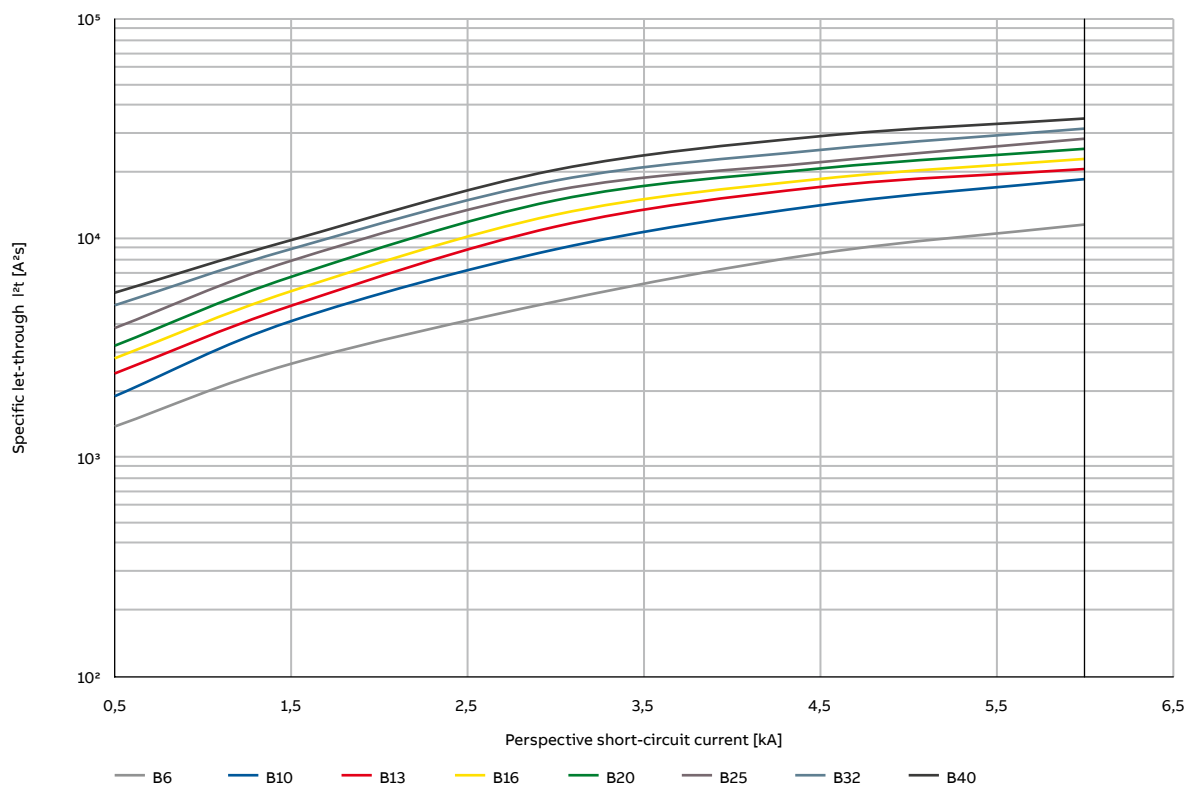
RCDs technical details

Limitation of specific let-through energy I^2t

Specific let-through energy I^2t DS201L - Characteristic C



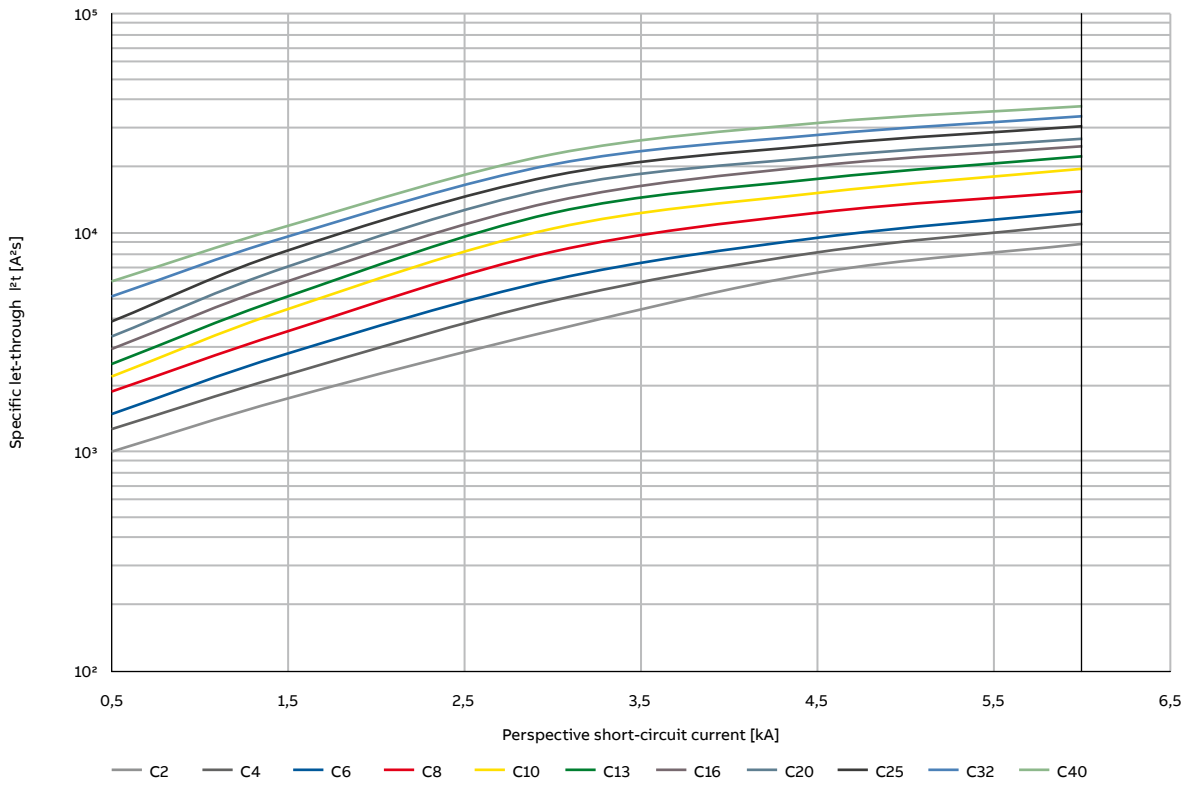
Specific let-through energy I^2t DS201 - Characteristic B



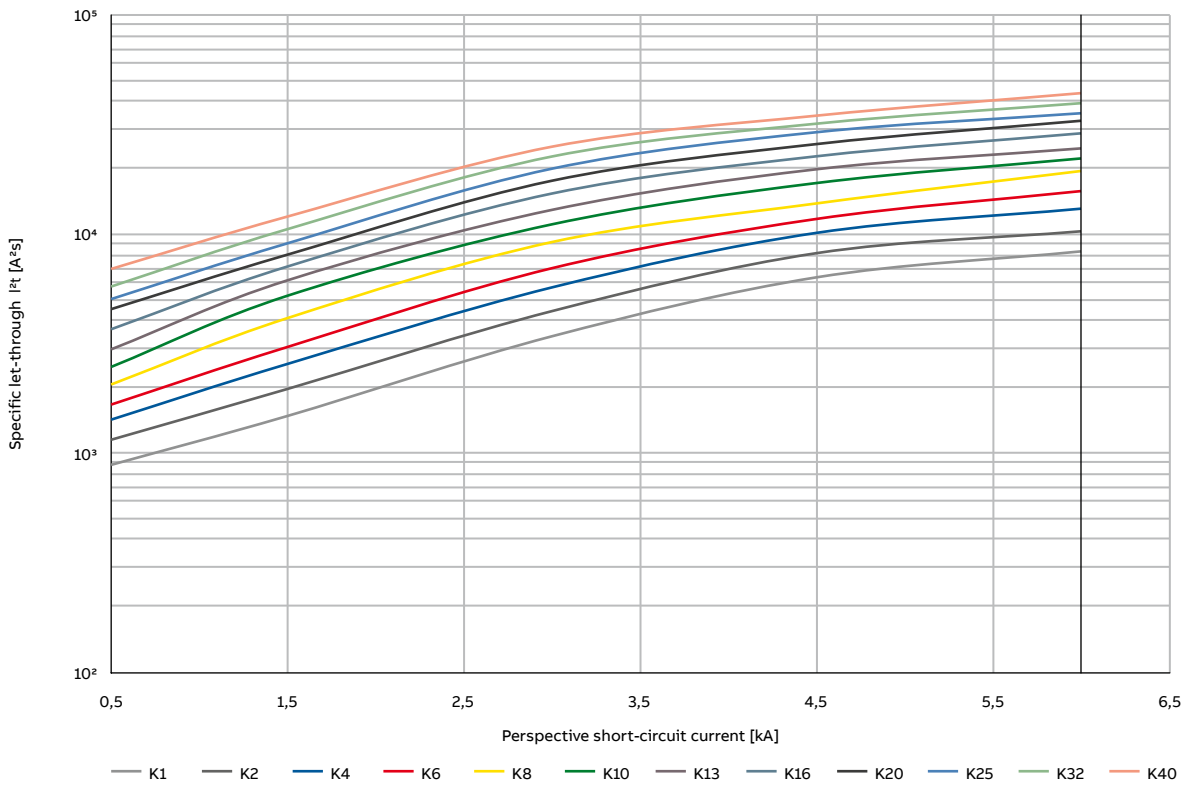
RCDs technical details

Limitation of specific let-through energy I^2t

Specific let-through energy I^2t DS201 - Characteristic C



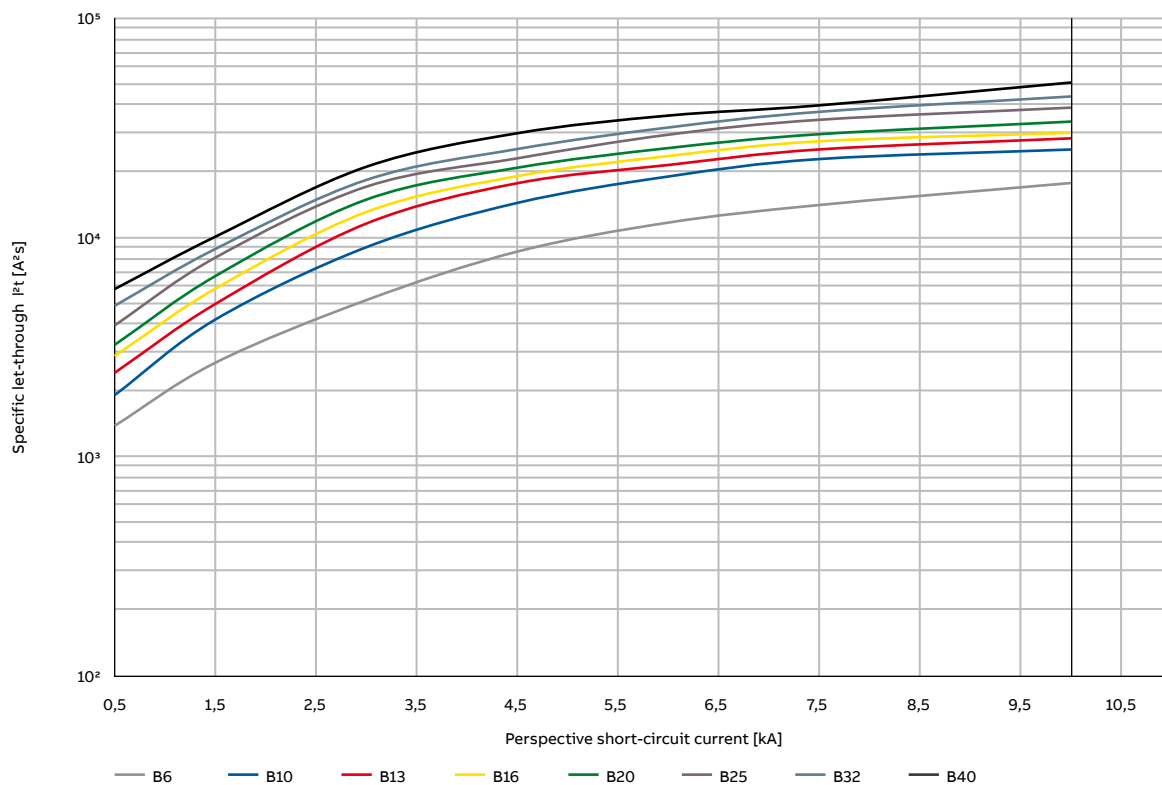
Specific let-through energy I^2t DS201 - Characteristic K



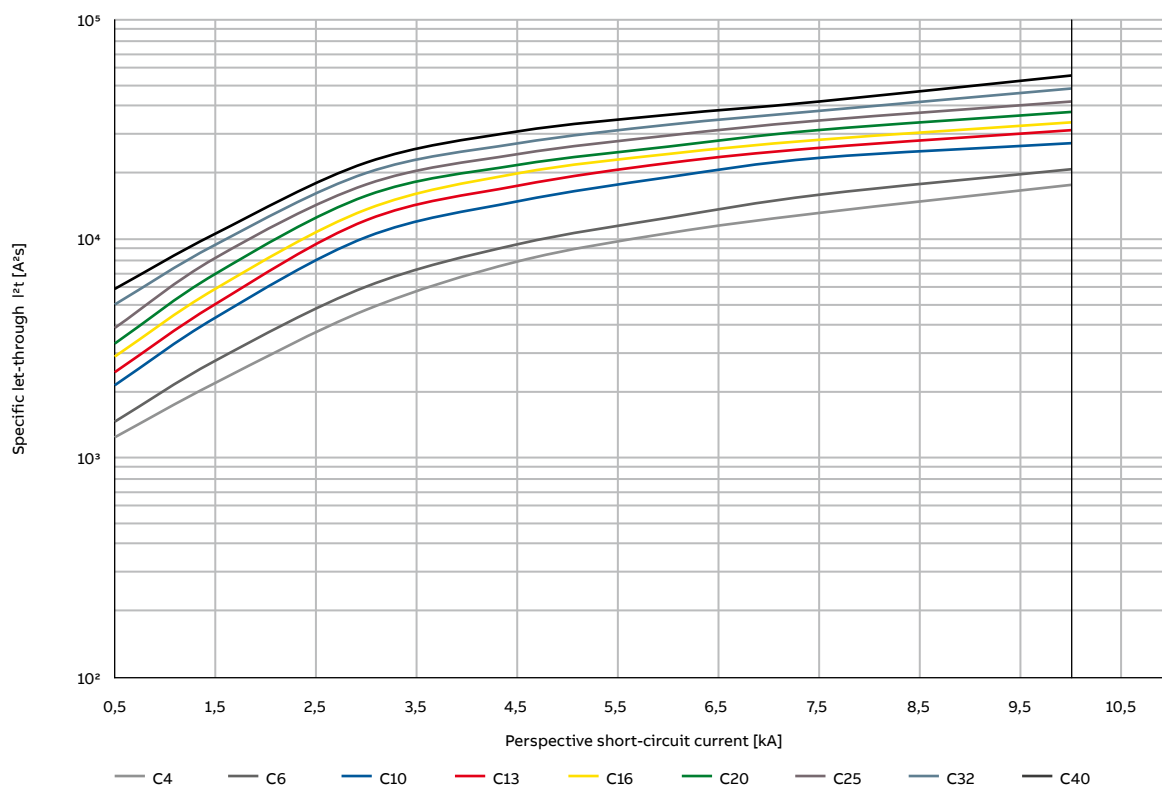
RCDs technical details

Limitation of specific let-through energy I^2t

Specific let-through energy I^2t DS201M - Characteristic B



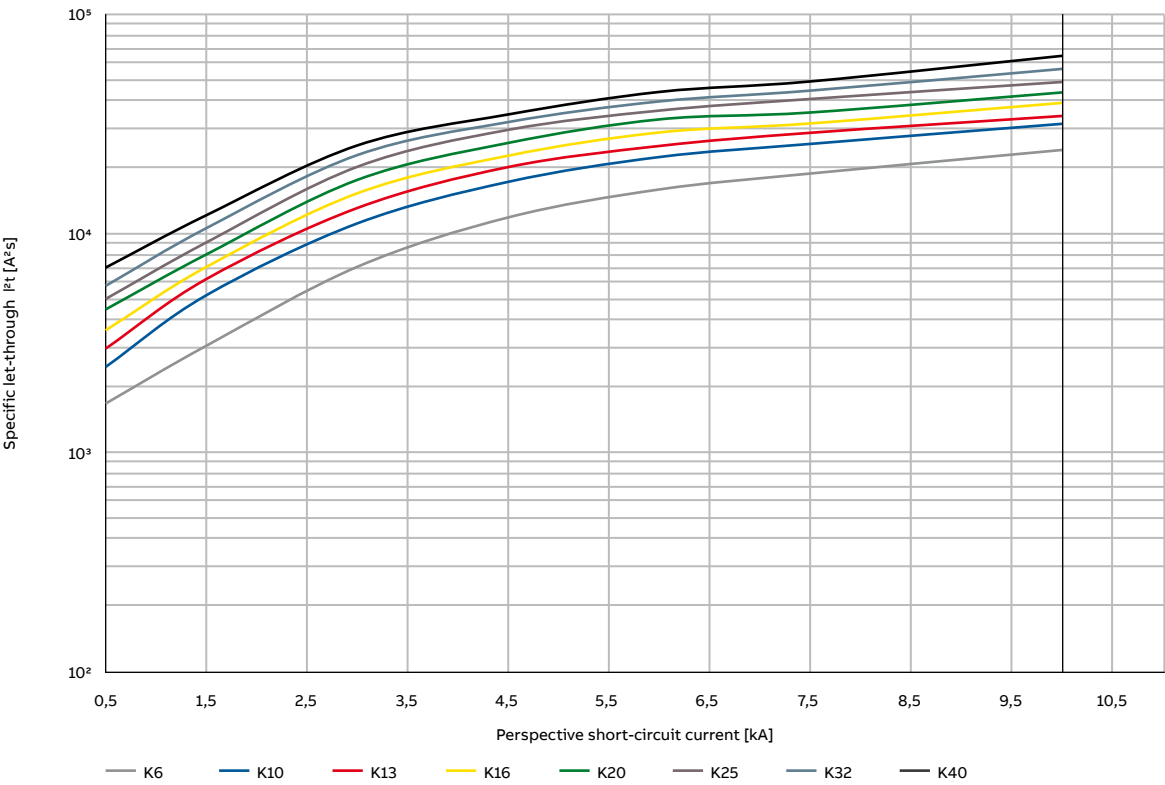
Specific let-through energy I^2t DS201M - Characteristic C



RCDs technical details

Limitation of specific let-through energy I^2t

Specific let-through energy I^2t DS201M - Characteristic K

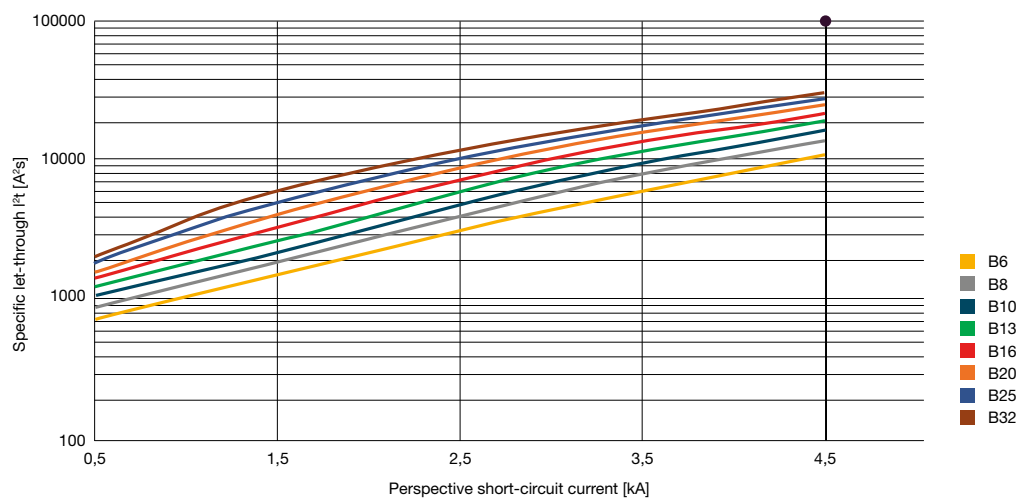


RCDs technical details

Limitation of specific let-through energy I^2t

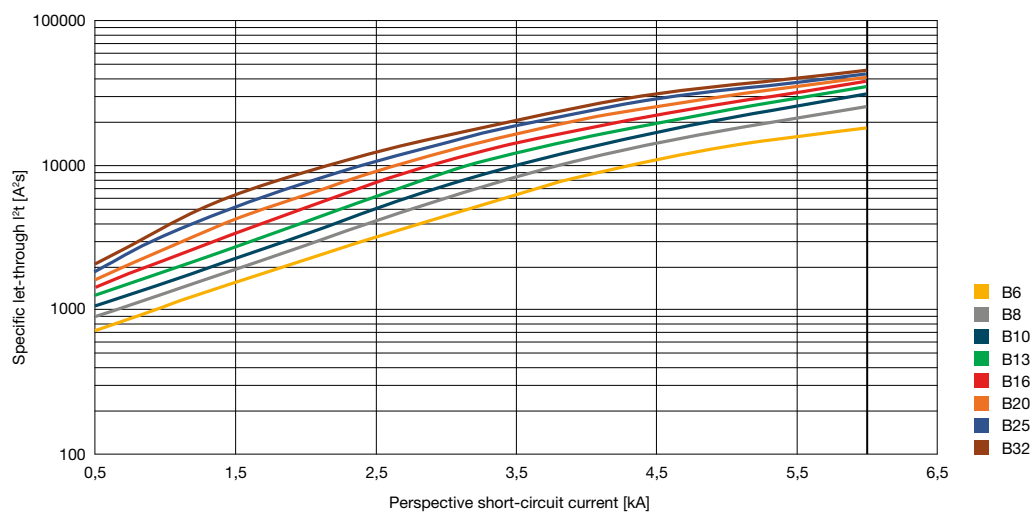
DS203NC L, characteristic B

400 V let-through energy



DS203NC, characteristic B

400 V let-through energy

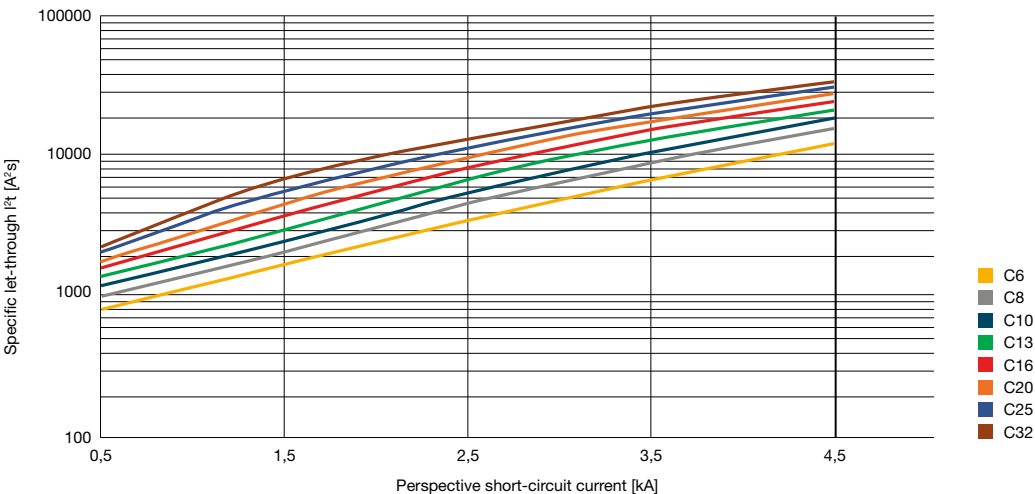


RCDs technical details

Limitation of specific let-through energy I^2t

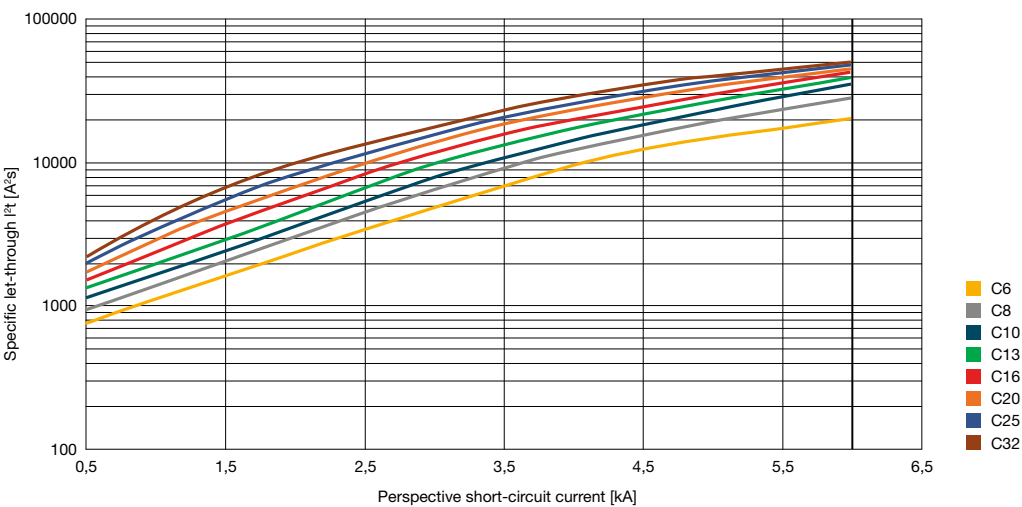
DS203NC L, characteristic C

400 V let-through energy



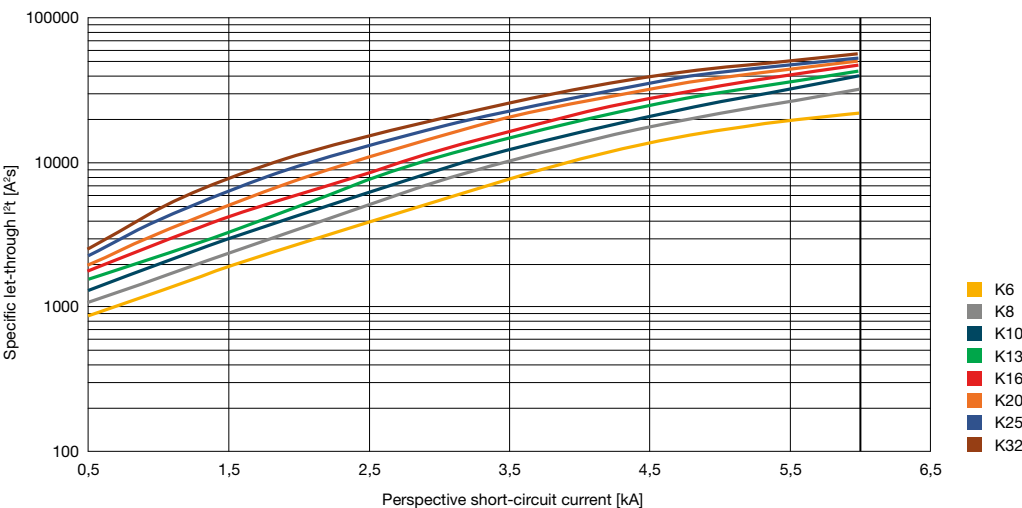
DS203NC, characteristic C

400 V let-through energy



DS203NC, characteristic K

400 V let-through energy

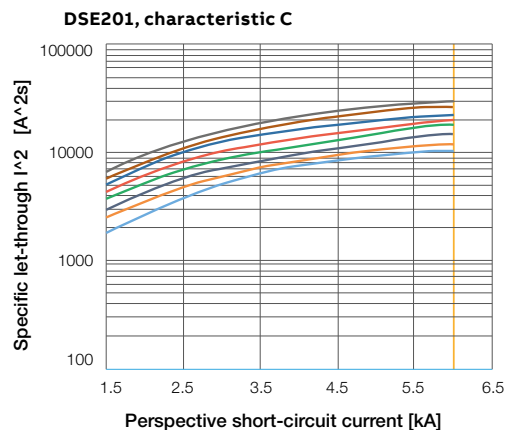
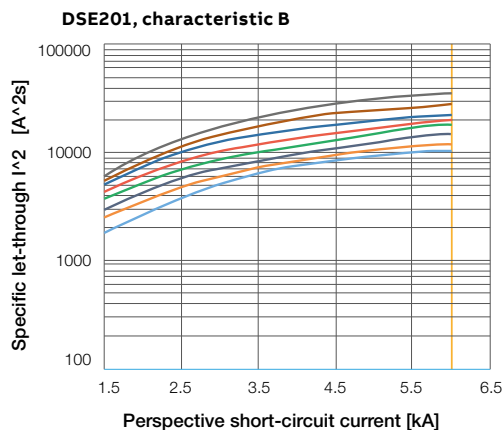


RCDs technical details

Limitation of specific let-through energy I^2t

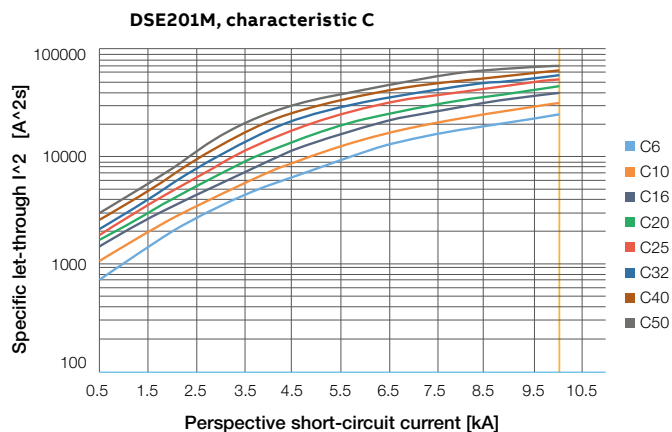
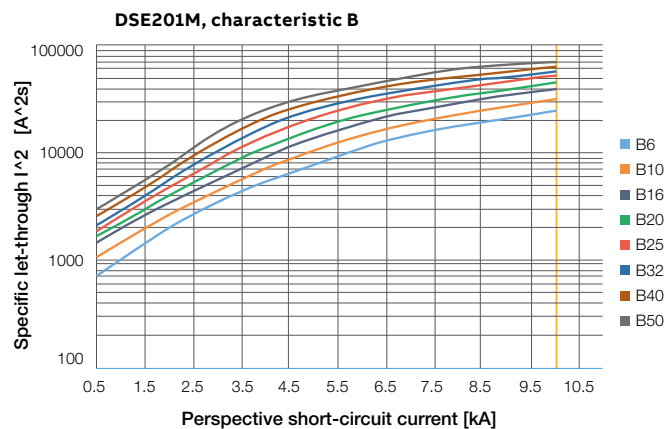
DSE201

230 V let-through energy



DSE201 M

230 V let-through energy



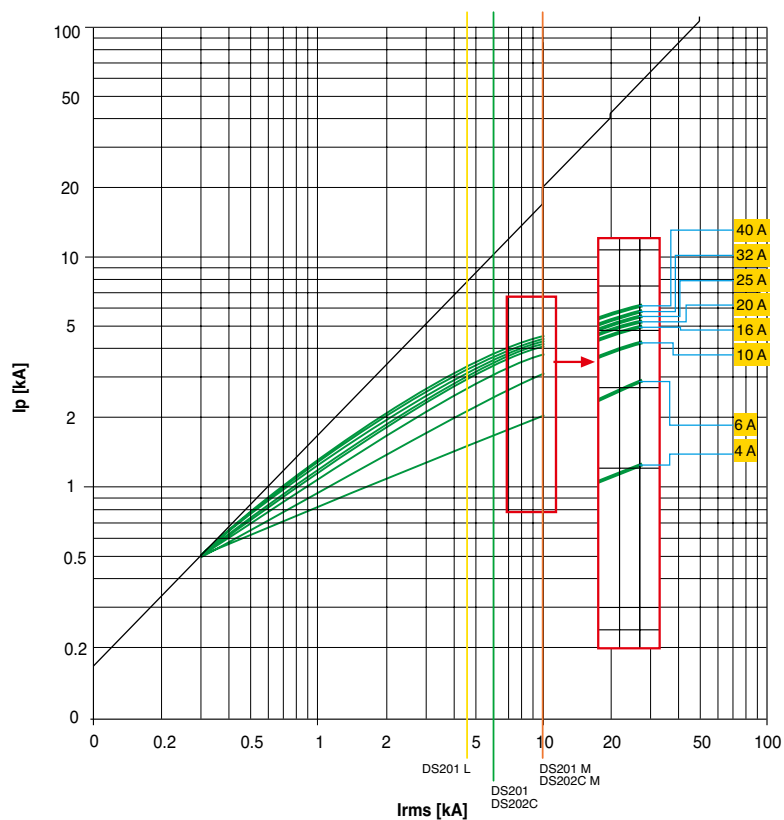
RCDs technical details

Peak current I_p

DS201 L - DS201 - DS201 T - DS201 M

DS202C - DS202C M characteristics B and C

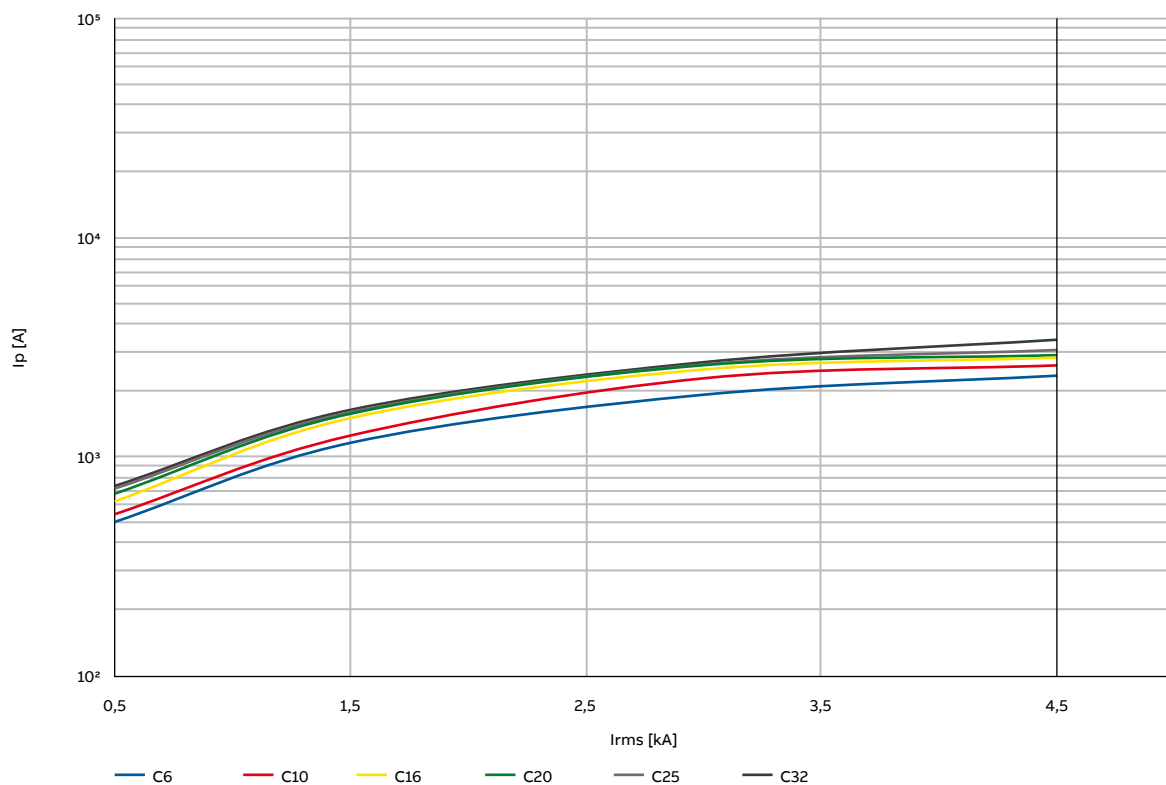
230 V



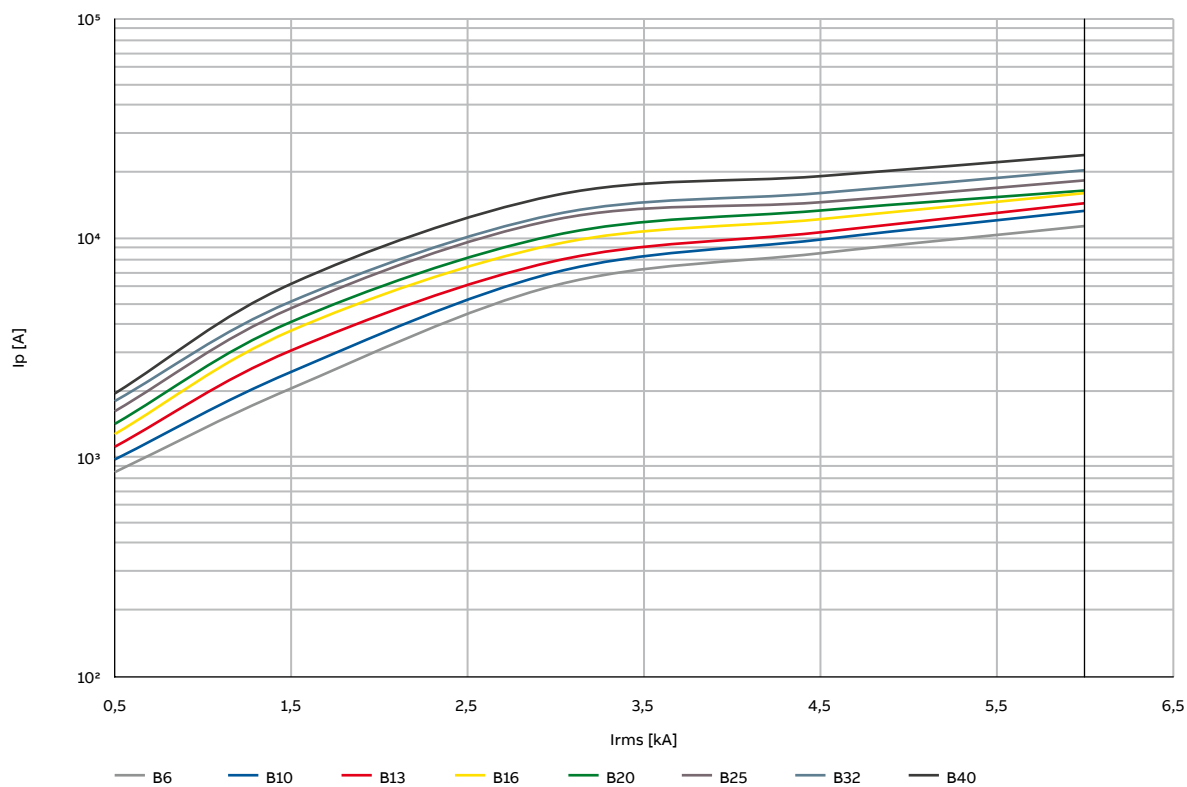
RCDs technical details

Peak current I_p

I_{peak} DS201L - Characteristic C



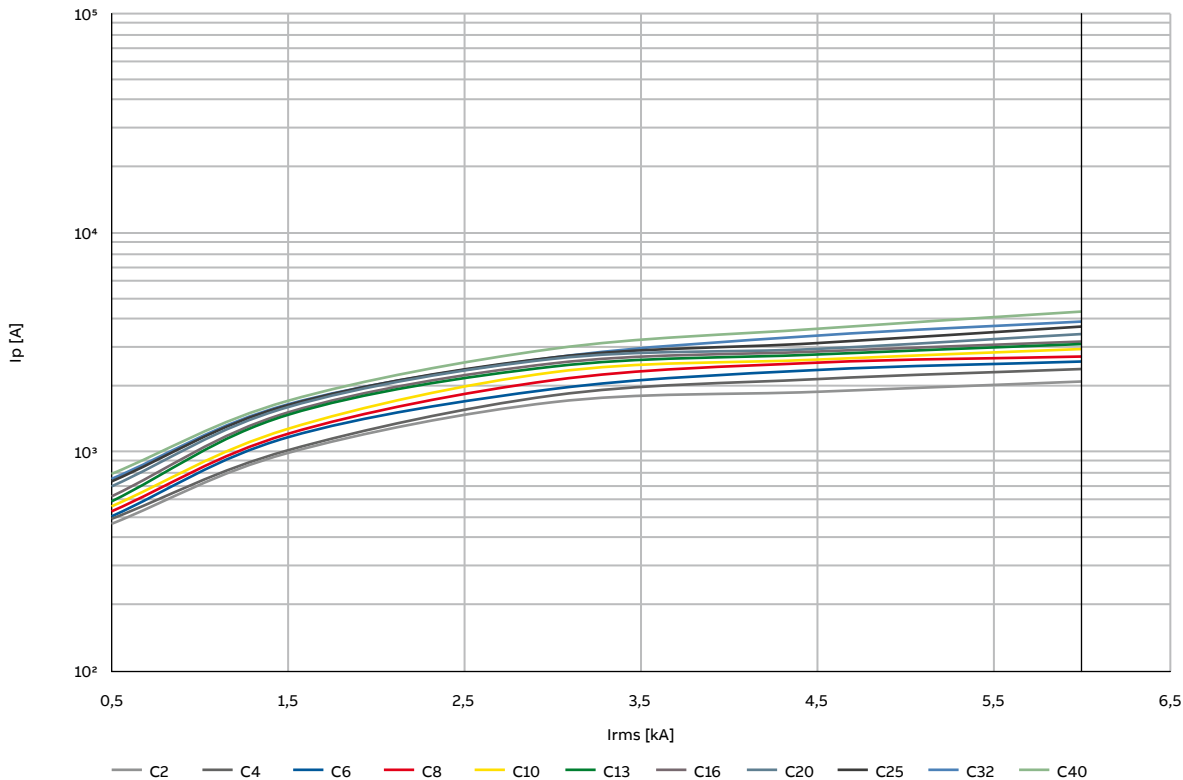
I_{peak} DS201 - Characteristic B



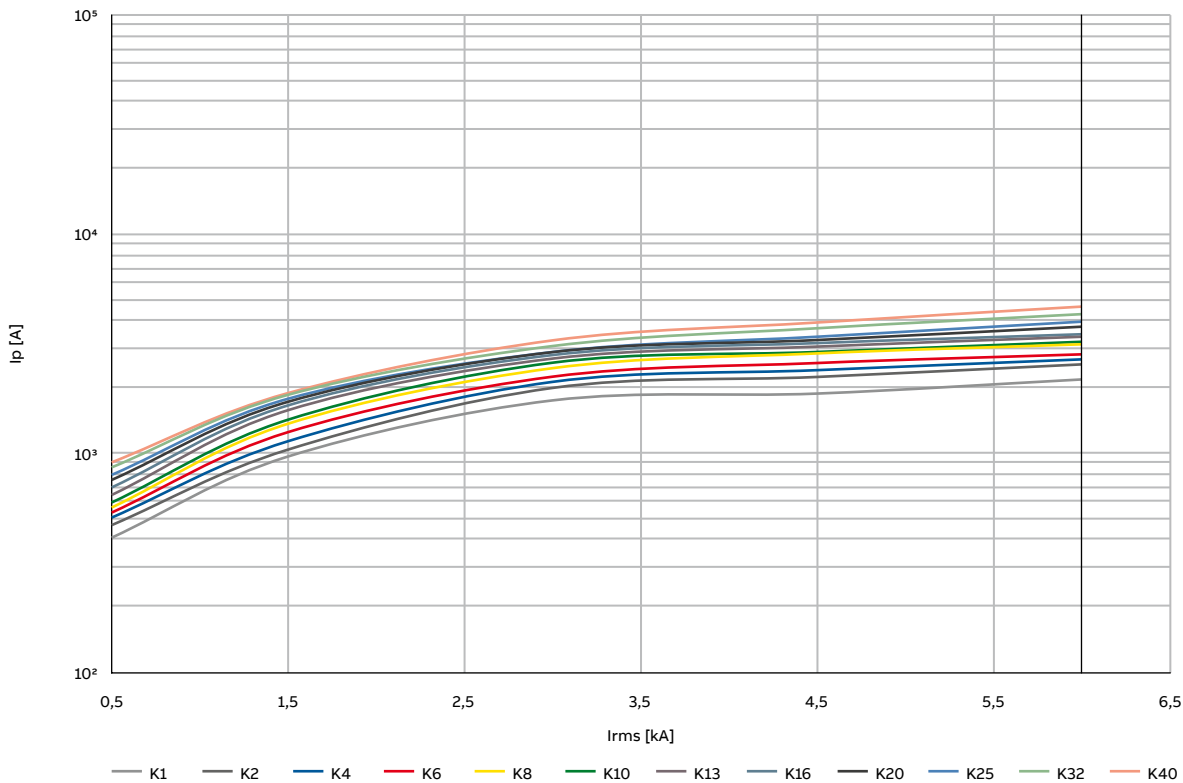
RCDs technical details

Peak current I_p

Ipeak DS201 - Characteristic C



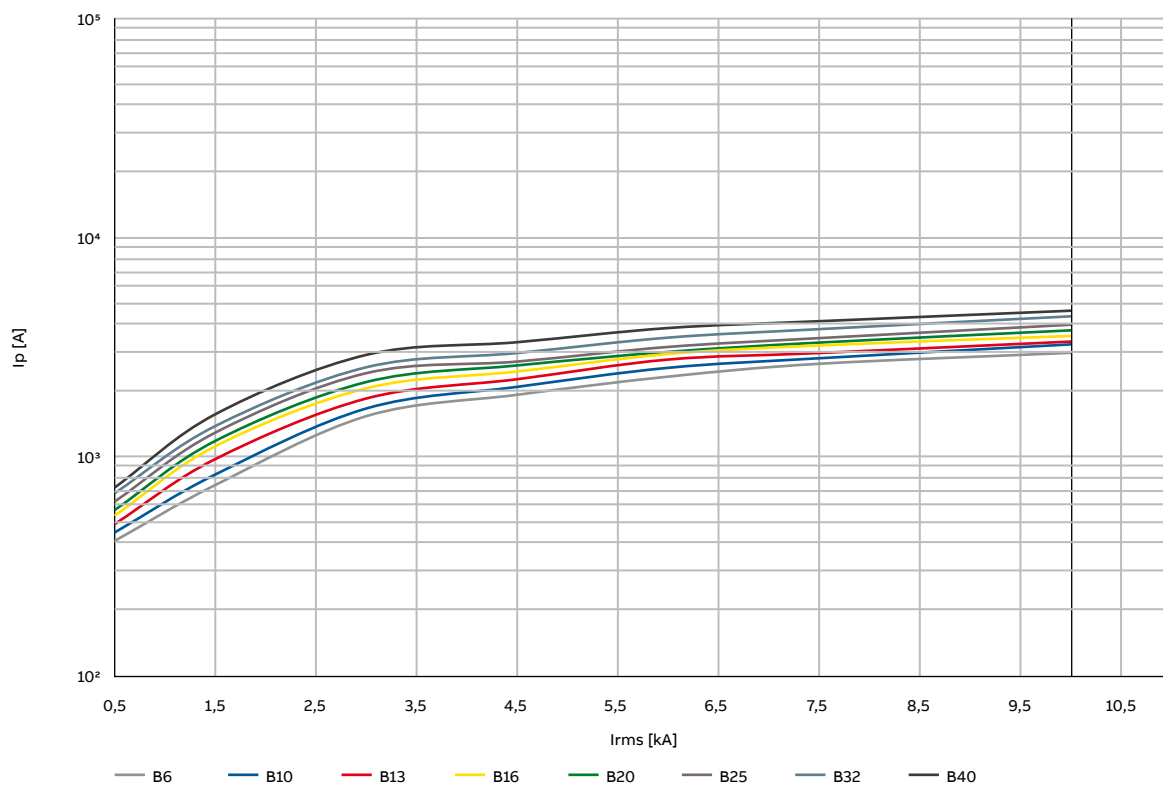
Ipeak DS201 - Characteristic K



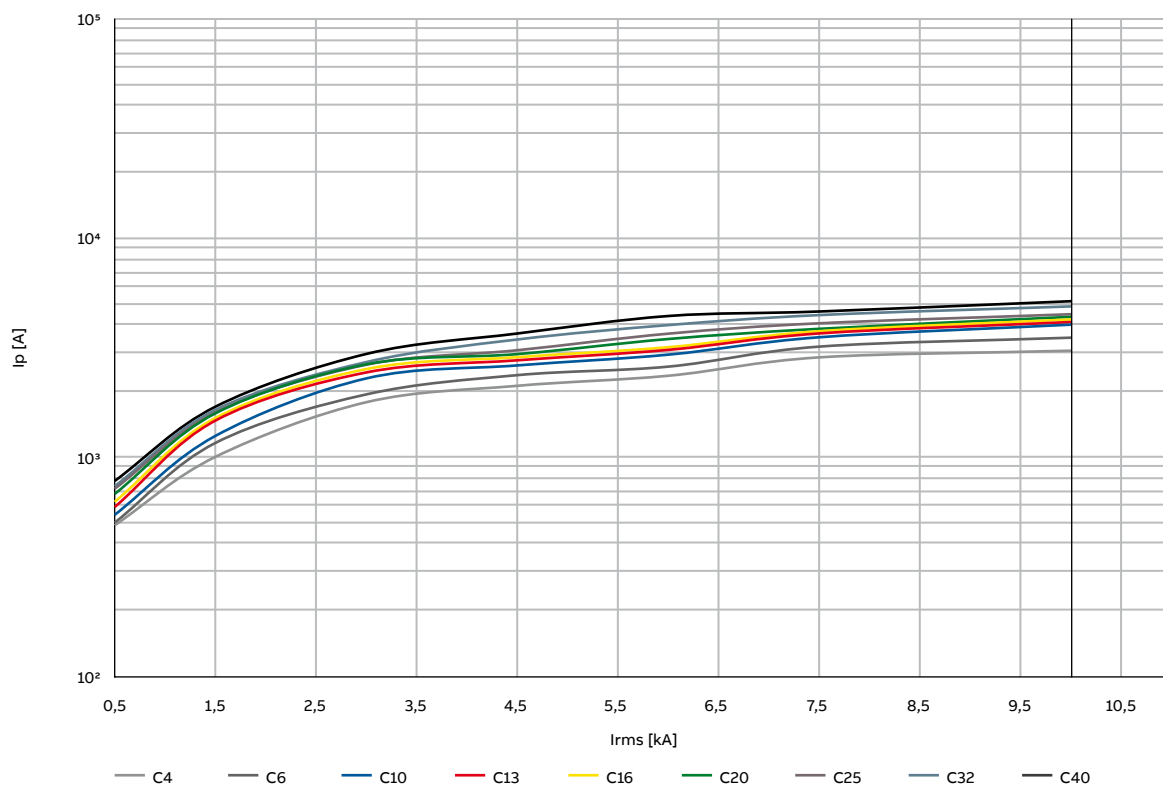
RCDs technical details

Peak current I_p

I_{peak} DS201M - Characteristic B



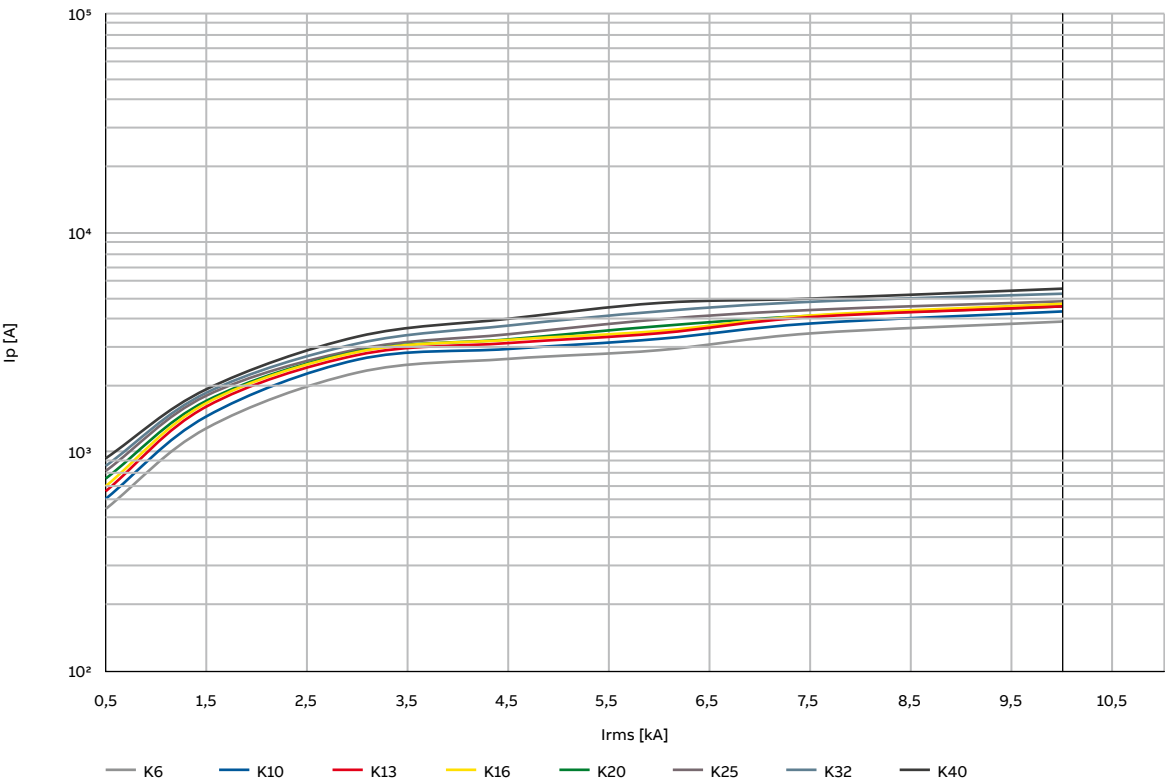
I_{peak} DS201M - Characteristic C



RCDs technical details

Peak current I_p

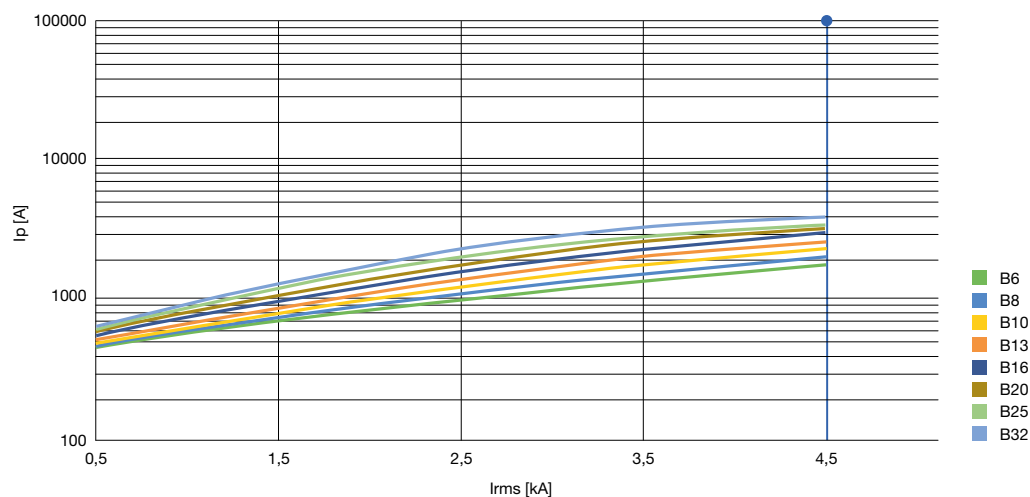
I_{peak} DS201M - Characteristic K



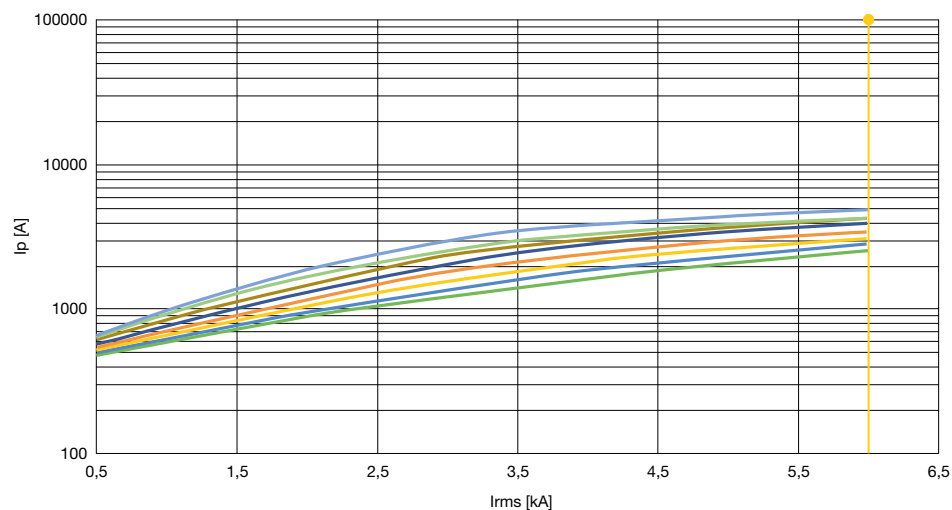
RCDs technical details

Peak current I_p

DS203NC L, characteristic B



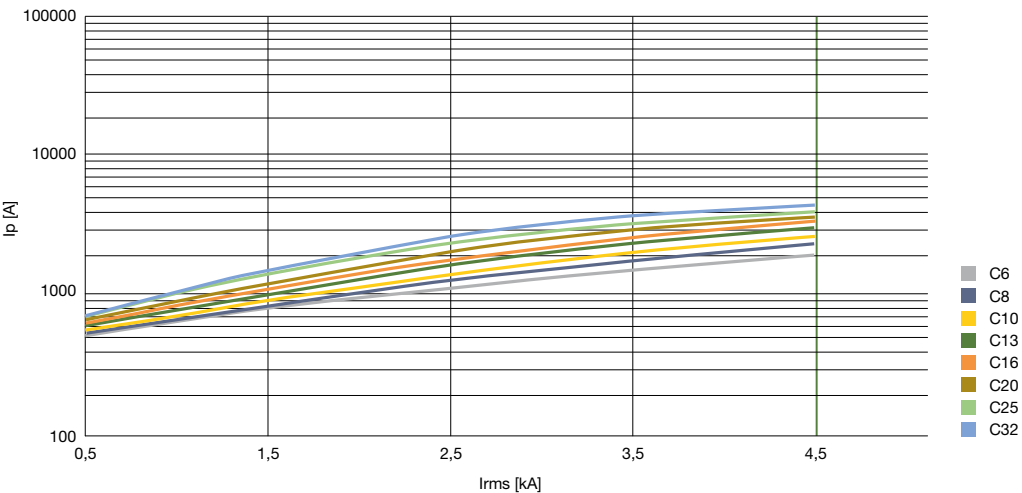
DS203NC, characteristic B



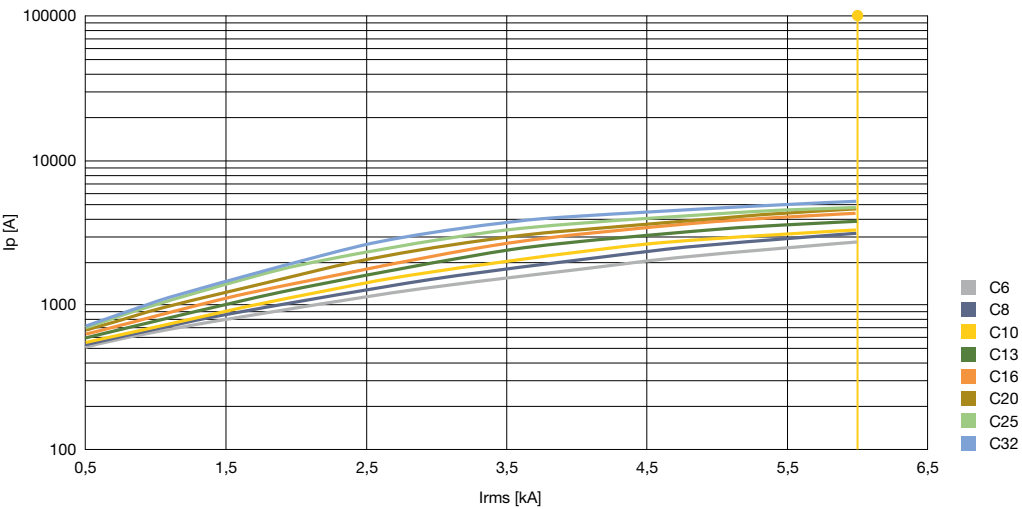
RCDs technical details

Peak current I_p

DS203NC L, characteristic C



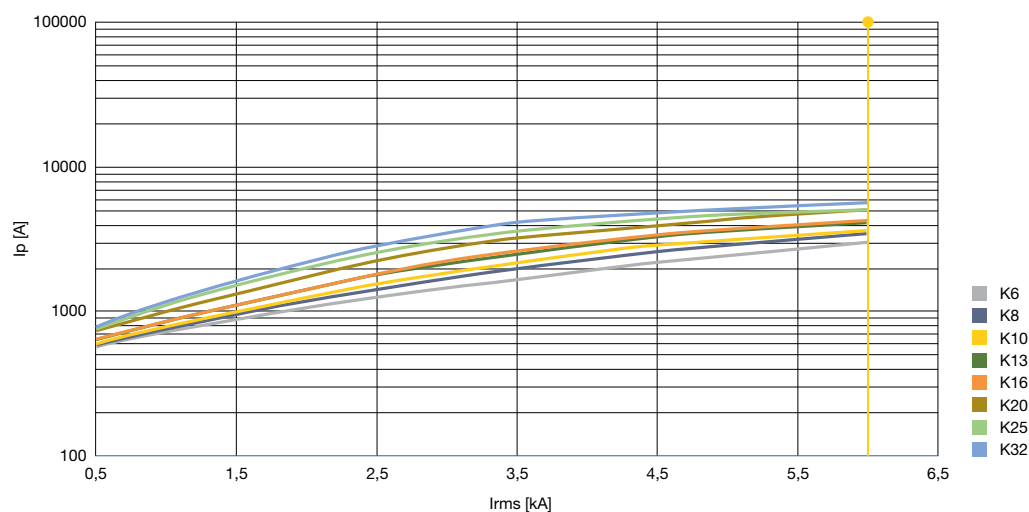
DS203NC, characteristic C



RCDs technical details

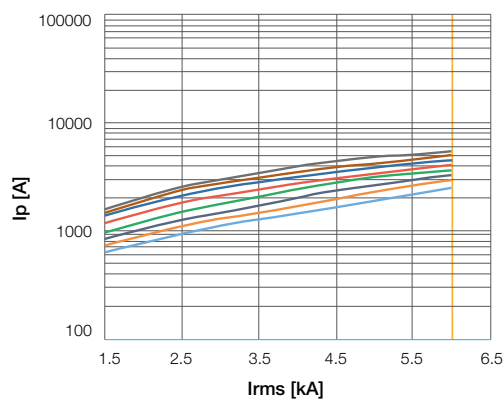
Peak current I_p

DS203NC, characteristic K

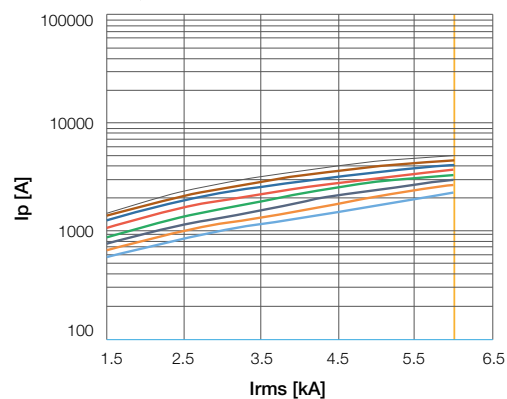


DSE201

DSE201, characteristic B

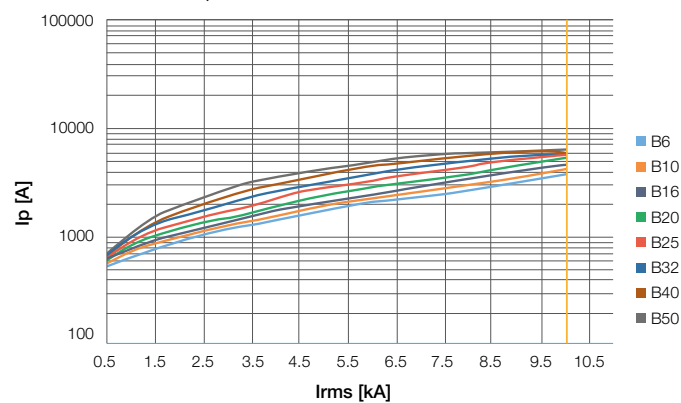


DSE201, characteristic C

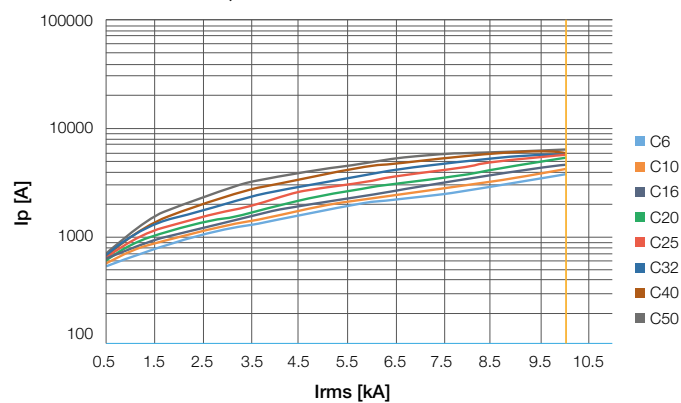


DSE201 M

DSE201M, characteristic B



DSE201M, characteristic C



RCDs technical details

Coordination tables: F 200 RCCBs

Coordination tables between Short Circuit Protection Devices (SCPD) and F 200 RCCBs

If you are using an RCCB you must verify that the Short Circuit Protection Device (SCPD) protects it from the effects of high current that arise under short-circuit conditions. The IEC/EN 61008 provides some tests to verify the behaviour of RCCB in short-circuit conditions. The tables

below provide the maximum withstanding short-circuit current expressed in eff. kA for which the RCCBs are protected thanks to the coordination with the SCPD installed upstream or downstream. The tests are performed with SCPD with a rated current (thermal protection) less than or equal to the rated current of the associated RCCB.

F 202

| | Single-phases 230-240 V circuit | | | | | |
|-----------------|---------------------------------|------|------|------|-------|-------|
| | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
| SN201L/S201L Na | 4.5 | 4.5 | | | | |
| SN201/S201 Na | 6 | 6 | | | | |
| SN201M/S201M Na | 10 | 10 | | | | |
| S202L | 10 | 10 | | | | |
| S202 | 20 | 20 | 20 | | | |
| S202M | 25 | 25 | 25 | | | |
| S202P | 40 | 25 | 25 | | | |
| S292 | 25 | 25 | 25 | 25 | 25 | 25 |
| S702 | 10 | 10 | 10 | 10 | 10 | |
| S752 | 10 | 10 | 10 | | | |
| S802N | 36 | 36 | 36 | 36 | 36 | 36 |
| S802S | 50 | 50 | 50 | 50 | 50 | 50 |
| Fuse 25 gG | 100 | | | | | |
| Fuse 40 gG | 60 | 60 | | | | |
| Fuse 63 gG | 20 | 20 | 20 | | | |
| Fuse 100 gG | 10 | 10 | 10 | 10 | 10 | |
| Fuse 125 gG | | | | | | 10 |

F 202

| | 400-415 V circuits with isolated neutral (IT) under double faults | | | | | |
|----------------------|---|------|------|------|-------|-------|
| | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
| SN201N/SN201/SN201M | 3 | 3 | | | | |
| S201L/S201L Na/S202L | 4.5 | 4.5 | | | | |
| S201/S201 Na/S202 | 6 | 6 | 6 | | | |
| S201M/S201M Na/S202M | 10 | 10 | 10 | | | |
| S201P/S201P Na/S202P | 25 | 15 | 15 | | | |
| S291/S292 | 10 | 10 | 10 | 10 | 10 | 10 |
| S801N/S802N | 20 | 20 | 20 | 20 | 20 | 20 |
| S801S/S802S | 25 | 25 | 25 | 25 | 25 | 25 |

RCDs technical details

Coordination tables: F 200 RCCBs

F 204

| | Three-phases circuits with neutral (y/D) 230-240 V/400-415 V* | | | | | |
|-----------------------|---|------|------|------|-------|-------|
| | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
| SN201L/S201L/S201LNa* | 4.5 | 4.5 | | | | |
| SN201/S201/S201Na* | 6 | 6 | | | | |
| SN201M/S201M/S201MNa* | 10 | 10 | | | | |
| S202L* | 10 | 10 | | | | |
| S202* | 20 | 20 | 20 | | | |
| S202M* | 25 | 25 | 25 | | | |
| S202P* | 40 | 25 | 25 | | | |
| S292* | 25 | 25 | 25 | 25 | 25 | 25 |
| S702 | 10 | 10 | 10 | 10 | 10 | |
| S752 | 10 | 10 | 10 | | | |
| S802N* | 36 | 36 | 36 | 36 | 36 | 36 |
| S802S* | 50 | 50 | 50 | 50 | 50 | 50 |
| Fuse 25 gG | 100 | | | | | |
| Fuse 40 gG | 60 | 60 | | | | |
| Fuse 63 gG | 20 | 20 | 20 | | | |
| Fuse 100 gG | 10 | 10 | 10 | 10 | 10 | |
| Fuse 125 gG | | | | | | 10 |

* The switches are considered between phase and neutral (230/240V)

F 204

| | Three-phases circuits with neutral (y/D) 230-240 V/400-415 V | | | | | |
|-------------|--|------|------|------|-------|-------|
| | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
| S203L/S204L | 4.5 | 4.5 | | | | |
| S203/S204 | 6 | 6 | 6 | | | |
| S203M/S204M | 10 | 10 | 10 | | | |
| S203P/S204P | 25 | 15 | 15 | | | |
| S293/S294 | 10 | 10 | 10 | 10 | 10 | 10 |
| S702 | 10 | 10 | 10 | 10 | 10 | |
| S752 | 10 | 10 | 10 | | | |
| S803N/S804N | 20 | 20 | 20 | 20 | 20 | 20 |
| S803S/S804S | 25 | 25 | 25 | 25 | 25 | 25 |
| Fuse 25 gG | 50 | | | | | |
| Fuse 40 gG | 30 | 30 | | | | |
| Fuse 63 gG | 20 | 20 | 20 | | | |
| Fuse 100 gG | 10 | 10 | 10 | 10 | 10 | |
| Fuse 125 gG | | | | | | 10 |

RCDs technical details

Coordination tables: F 200 RCCBs

F 204

| | Three-phases circuits with neutral (y/D) 133-138V/230-240V | | | | | |
|-------------|--|------|------|------|-------|-------|
| | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
| SN201L | 10 | 10 | | | | |
| SN201 | 15 | 15 | | | | |
| S201M | 20 | 20 | | | | |
| S203L/S204L | 10 | 10 | | | | |
| S203/S204 | 20 | 20 | 20 | | | |
| S203M/S204M | 25 | 25 | 25 | | | |
| S203P/S204P | 40 | 25 | 25 | | | |
| S293/S294 | 25 | 25 | 25 | 25 | 25 | 25 |
| S702 | 10 | 10 | 10 | 10 | 10 | |
| S752 | 10 | 10 | 10 | | | |
| S803N-S804N | 36 | 36 | 36 | 36 | 36 | 36 |
| S803S-S804S | 50 | 50 | 50 | 50 | 50 | 50 |
| Fuse 25 gG | 100 | | | | | |
| Fuse 40 gG | 60 | 60 | | | | |
| Fuse 63 gG | 20 | 20 | 20 | | | |
| Fuse 100 gG | 10 | 10 | 10 | 10 | 10 | |
| Fuse 125 gG | | | | | | 10 |

RCDs technical details

Coordination tables: back-up DS202C

MCB/Fuses - DS202C @ 230/240 V

| | | | Supply s. | S200 | S200M | S200P | S200P | 25gG | 40gG | 50gG | 63gG | 80gG | 100gG |
|-------------|-------------|-------------|--------------|----------|----------|----------|---------|------|------|------|------|------|-------|
| Load s. | Char. | Icu [kA] | B-C | | B-C | B-C | B-C | | | | | | |
| | | | 20 | | 25 | 40 | 25 | | | | | | |
| | | | In [A] | 0,5...63 | 0,5...63 | 0,5...25 | 32...63 | | | | | | |
| DS202C | B,C, D,K | 10 | 2...40 | 20 | 25 | 40 | 25 | 35 | 25 | 20 | 15 | 10 | 10 |
| DS202C M | B,C | 10 | 2...40 | 20 | 25 | 40 | 25 | 35 | 25 | 20 | 15 | 10 | 10 |

MCCB @ 415 V - DS202C @ 230/240 V

| | | | Supply S.1 | T1 | T1 | T1 | T2 | T3 | T2 | T3 | T2 | T2 |
|-------------|---------------|----------|---------------|----|----|----|----|----|----|----|----|----|
| | | | Version | B | C | N | | | | S | H | L |
| Load S. | Char. | Icu [kA] | In [A] | 16 | 25 | 36 | | | | 50 | 70 | 85 |
| DS202C | B, C, D, K | 10 | 2..25 | 16 | 16 | 16 | 25 | 16 | 25 | 16 | 25 | 25 |
| | | | 32, 40 | | | | 16 | | 16 | | 16 | 16 |
| DS202C M | B, C | 10 | 2..25 | 16 | 16 | 16 | 25 | 16 | 25 | 16 | 25 | 25 |
| | | | 32, 40 | | | | 16 | | 16 | | 16 | 16 |

¹ Supply side circuit-breaker 4P (load side circuit branched between one phase and the neutral)

RCDs technical details

Coordination tables: back-up DS202C

MCCB @ 415V - DS202C @ 230/240 V

| | | | Supply side | XT1 | XT1 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT4 | XT2 | XT4 | XT4 |
|-----------|----------|----------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | Version | B | C | N | N | N | N | S | S | S | S | H | H | H | L | L | V |
| Load side | Char. | Icu [kA] | In [A] | 18 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 85 | 120 | 150 |
| DS202C | B,C, D,K | 10 | 2..25 | 18 | 18 | 18 | 25 | 18 | 20 | 20 | 25 | 18 | 20 | 20 | 25 | 20 | 25 | 20 | 20 |
| | | | 32, 40 | | | | 18 | | 10 | 10 | 18 | | 10 | 10 | 18 | 10 | 18 | 10 | 10 |
| DS202C M | B,C | 10 | 2..25 | 18 | 18 | 18 | 25 | 18 | 20 | 20 | 25 | 18 | 20 | 20 | 25 | 20 | 25 | 20 | 20 |
| | | | 32, 40 | | | | 18 | | 10 | 10 | 18 | | 10 | 10 | 18 | 10 | 18 | 10 | 10 |

Coordination tables: back-up DS201

| | | Supply side | | Fuses gG | | | | | |
|----------------|-------|-------------|--------|----------|----|----|----|----|-----|
| Load side | Char | Icu [kA] | In[A] | 25 | 40 | 50 | 63 | 80 | 100 |
| DS201 (2019) L | C | 6 | 6...32 | 35 | 25 | 25 | 25 | 15 | 10 |
| DS201 (2019) | B,C,K | 10 | 1...40 | 35 | 25 | 25 | 25 | 15 | 10 |
| DS201 (2019) M | B,C,K | 15 | 4...40 | 35 | 25 | 25 | 25 | 15 | 15 |

| | | Supply side | | XT1 | XT1 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT4 | XT2 | XT4 | XT2 | XT4 |
|----------------|-------|-------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Version | | B | C | N | N | N | N | S | S | S | S | H | H | H | L | L | V | V |
| Load side | Char | Icu [kA] | | 18 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 120 | 120 | 150 | 150 |
| DS201 (2019) L | C | 6 | In[A] | 160 | 160 | 160 | 160 | 250 | 250 | 160 | 160 | 250 | 250 | 160 | 160 | 250 | 160 | 250 | 250 | 250 |
| | | | 6...25 | 18 | 18 | 18 | 20 | 10 | 18 | 18 | 20 | 10 | 18 | 18 | 20 | 18 | 20 | 18 | 18 | 18 |
| | | | 32 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 18 | 10 | 10 | 10 | 18 | 10 | 18 | 10 | 10 | 10 |
| DS201 (2019) | B,C,K | 10 | 1...25 | 18 | 18 | 18 | 25 | 18 | 20 | 20 | 25 | 18 | 20 | 25 | 20 | 25 | 20 | 20 | 20 | |
| | | | 32, 40 | 18 | 18 | 18 | 18 | 18 | 10 | 10 | 18 | 18 | 10 | 10 | 18 | 10 | 18 | 10 | 10 | 10 |
| DS201 (2019) M | B,C,K | 15 | 4...25 | 18 | 18 | 18 | 25 | 18 | 20 | 20 | 25 | 18 | 20 | 20 | 25 | 20 | 25 | 20 | 20 | 20 |
| | | | 32, 40 | 18 | 18 | 18 | 18 | 18 | 15 | 15 | 18 | 18 | 15 | 15 | 18 | 15 | 18 | 15 | 15 | 15 |

[illegible]

RCDs technical details

Coordination tables: back-up DS201

S200 - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S200 | S200M | S200P | S200P |
|----------------|-------|-------------|--------|---------|----------|----------|---------|
| | | Version | | B,C | B,C | B,C | B,C |
| | | Icu [kA] | | 20 | 25 | 40 | 25 |
| | | | In[A] | 0,5..63 | 0.5...63 | 0.5...25 | 32...63 |
| DS201 (2019) L | C | 6 | 6...32 | 20 | 25 | 40 | 25 |
| DS201 (2019) | B,C,K | 10 | 1...40 | 20 | 25 | 40 | 25 |
| DS201 (2019) M | B,C,K | 15 | 4...40 | 20 | 25 | 40 | 25 |

DS201 (2019) - SN201 @ 230/240V

| Load side | Char | Supply side | | DS201 (2019) | DS201 (2019) M |
|-----------|-------|-------------|--------|--------------|----------------|
| | | Version | | B,C,K | B,C,K |
| | | Icu [kA] | | 10 | 15 |
| | | | In[A] | 1..40 | 2..40 |
| SN201 L | B,C | 6 | 2...40 | 10 | 15 |
| SN201 | B,C,D | 10 | 2...40 | 10 | 15 |

S800S - DS201 (2019) @ 230/240V

| | | Supply side | | S800S | | | | | | | |
|----------------|-------|-------------|-------|---------|----|----|----|----|----|-----|-----|
| | | Version | | B,C,D,K | | | | | | | |
| Load side | Char | Icu [kA] | 50 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 50 | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 10 | 50 | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 16 | 50 | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS201 (2019) | B,C,K | 10 | 1 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 2 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 4 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 6 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 8 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 10 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 13 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 |
| DS201 (2019) M | B,C,K | 15 | 4 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 6 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 10 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 13 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 |
| | | | 40 | | | | | 50 | 50 | 50 | 50 |

RCDs technical details

Coordination tables: back-up DS201

S800N - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800N | | | | | | | |
|----------------|-------|-------------|-------|-------|----|----|----|----|----|-----|-----|
| | | Version | | B,C,D | | | | | | | |
| | | Icu [kA] | 36 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 36 | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 10 | 36 | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 16 | 36 | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS201 (2019) | B,C,K | 10 | 1 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 2 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 4 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 6 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 8 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 10 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 13 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 16 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 20 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 25 | | | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 32 | | | | 36 | 36 | 36 | 36 | 36 |
| DS201 (2019) M | B,C,K | 15 | 4 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 6 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 10 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 13 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 16 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 20 | | 50 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 25 | | | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 32 | | | | 36 | 36 | 36 | 36 | 36 |
| | | | 40 | | | | | 36 | 36 | 36 | 36 |

RCDs technical details

Coordination tables: back-up DS201

S800C - DS201 (2019) @ 230/240V

| | | Supply side | | S800C | | | | | | | |
|----------------|-------|-------------|---------|---------|----|----|----|----|----|-----|-----|
| Load side | Char | Icu [kA] | Version | B,C,D,K | | | | | | | |
| | | | 25 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 10 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 16 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS201 (2019) | B,C,K | 10 | 1 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 2 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 4 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 6 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 8 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 10 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 13 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 16 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 20 | | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 25 | | | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 32 | | | | 25 | 25 | 25 | 25 | 25 |
| DS201 (2019) M | B,C,K | 15 | 4 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 6 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 10 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 13 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 16 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 20 | | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 25 | | | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 32 | | | | 25 | 25 | 25 | 25 | 25 |
| | | | 40 | | | | | 25 | 25 | 25 | 25 |

RCDs technical details

Coordination tables: back-up DS201

S800B - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800B | | | | | | |
|----------------|-------|-------------|-------|---------|----|----|----|----|-----|-----|
| | | Version | | B,C,D,K | | | | | | |
| | | Icu [kA] | 16 | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| | | | 10 | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| | | | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| | | | 20 | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| | | | 25 | | 16 | 16 | 16 | 15 | 15 | 15 |
| | | | 32 | | | 16 | 16 | 15 | 15 | 15 |
| DS201 (2019) | B,C,K | 10 | 1 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 2 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 4 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 6 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 8 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 10 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 13 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 20 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 25 | | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 32 | | | 16 | 16 | 16 | 16 | 16 |
| DS201 (2019) M | B,C,K | 15 | 4 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 6 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 10 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 13 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 20 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 25 | | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 32 | | | 16 | 16 | 16 | 16 | 16 |
| | | | 40 | | | | 16 | 16 | 16 | 16 |

Coordination tables: back-up DS201

| | | Supply side | S800U | | | | | | | | | |
|----------------|-------|-------------|-------|----|----|----|----|----|----|----|----|-----|
| | | Version | K,Z | | | | | | | | | |
| Load side | Char | Icu [kA] | 50 | | | | | | | | | |
| | | | In[A] | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| DS201 (2019) L | C | 6 | 6 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 10 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | | | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 2 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 4 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 6 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 8 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 10 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 13 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 40 | | | | | 50 | 50 | 50 | 50 | 50 |
| DS201 (2019) M | B,C,K | 15 | 4 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 6 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 10 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 13 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 40 | | | | | 50 | 50 | 50 | 50 | 50 |

RCDs technical details

Coordination tables: back-up DS201

S700 - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S700 |
|----------------|-------|-------------|-------|------------------------|
| | | Version | | Eselective; Kselective |
| | | Icu [kA] | 25 | |
| DS201 (2019) L | C | 6 | In[A] | 80 100 |
| | | | 6 | 20 20 |
| | | | 10 | 20 20 |
| | | | 16 | 20 20 |
| | | | 20 | 20 20 |
| | | | 25 | 20 20 |
| | | | 32 | 20 20 |
| | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | 20 20 |
| | | | 2 | 20 20 |
| | | | 4 | 20 20 |
| | | | 6 | 20 20 |
| | | | 8 | 20 20 |
| | | | 10 | 20 20 |
| | | | 13 | 20 20 |
| | | | 16 | 20 20 |
| | | | 20 | 20 20 |
| | | | 25 | 20 20 |
| | | | 32 | 20 20 |
| | | | 40 | 20 20 |
| DS201 (2019) M | B,C,K | 15 | 4 | 20 20 |
| | | | 6 | 20 20 |
| | | | 10 | 20 20 |
| | | | 13 | 20 20 |
| | | | 16 | 20 20 |
| | | | 20 | 20 20 |
| | | | 25 | 20 20 |
| | | | 32 | 20 20 |
| | | | 40 | 20 20 |

RCDs technical details

Coordination tables: back-up DS201

S750 DR - DS201 (2019) @ 230/240V

| | | Supply side | | S750 DR | | | | | | | |
|----------------|-------|-------------|------------------------|---------|----|----|----|----|----|----|----|
| | | Version | Eselective; Kselective | | | | | | | | |
| Load side | Char | Icu [kA] | 25 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 16 | 20 | 25 | 35 | 40 | 50 | 63 | |
| | | | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 20 | | | | 20 | 20 | 20 | 20 | 20 |
| | | | 25 | | | | | 20 | 20 | 20 | 20 |
| | | | 32 | | | | | | 20 | 20 | 20 |
| DS201 (2019) | B,C,K | 10 | 1 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 2 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 4 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 8 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 13 | | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 20 | | | | 20 | 20 | 20 | 20 | 20 |
| | | | 25 | | | | | 20 | 20 | 20 | 20 |
| | | | 32 | | | | | | 20 | 20 | 20 |
| | | | 40 | | | | | | | | 20 |
| DS201 (2019) M | B,C,K | 15 | 4 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 13 | | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 20 | | | | 20 | 20 | 20 | 20 | 20 |
| | | | 25 | | | | | 20 | 20 | 20 | 20 |
| | | | 32 | | | | | | 20 | 20 | 20 |
| | | | 40 | | | | | | | | 20 |

RCDs technical details

Coordination tables: back-up DS201

S750 - DS201 (2019) @ 230/240V

| Load side | Char | Icu [kA] | Supply side S750 | | | | | | | | |
|----------------|-------|----------|------------------|------------------------|----|----|----|----|----|----|----|
| | | | Version | Eselective; Kselective | | | | | | | |
| | | | 25 | | | | | | | | |
| | | | In[A] | 16 | 20 | 25 | 35 | 40 | 50 | 63 | |
| DS201 (2019) L | C | 6 | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | |
| | | | 20 | | | | 20 | 20 | 20 | 20 | |
| | | | 25 | | | | | 20 | 20 | 20 | |
| | | | 32 | | | | | | 20 | 20 | |
| | | | | | | | | | | 20 | 20 |
| DS201 (2019) | B,C,K | 10 | 1 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| | | | 2 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 4 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 8 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 13 | | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 20 | | | | 20 | 20 | 20 | 20 | 20 |
| | | | 25 | | | | | 20 | 20 | 20 | 20 |
| | | | 32 | | | | | | 20 | 20 | 20 |
| | | | 40 | | | | | | | | 20 |
| DS201 (2019) M | B,C,K | 15 | 4 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 6 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 10 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 13 | | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 16 | | | 20 | 20 | 20 | 20 | 20 | 20 |
| | | | 20 | | | | 20 | 20 | 20 | 20 | 20 |
| | | | 25 | | | | | 20 | 20 | 20 | 20 |
| | | | 32 | | | | | | 20 | 20 | 20 |
| | | | 40 | | | | | | | | 20 |

RCDs technical details

Coordination tables: back-up DS203NC

Fuses-DS203NC @ 400V

| | | Supply side | | gL/gG | | | | | | |
|-----------|-------|-------------|--------|-------|----|----|----|-----|-----|-----|
| Load side | Char | Icu [kA] | In[A] | 25 | 40 | 63 | 80 | 100 | 125 | 160 |
| DS203NC L | C | 6 | 6...32 | 100 | 70 | 40 | 15 | 15 | 10 | 10 |
| DS203NC | B,C,K | 10 | 6...32 | 100 | 70 | 40 | 15 | 15 | 10 | 10 |

MCCB @ 415V - DS203NC @ 400V

| | | Supply side | | XT1 | XT1 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT3 |
|-----------|-------|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | B | C | N | N | N | N | S | S | S |
| Load side | Char | Icu[KA] | In [A] | 18 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 |
| DS203NC L | C | 6 | 6...25 | 16 | 16 | 16 | 20 | 10 | 10 | 16 | 20 | 10 |
| | | | 32 | 10 | 10 | 10 | 16 | 10 | 10 | 10 | 16 | 10 |
| DS203NC | B,C,K | 10 | 6...16 | 16 | 16 | 16 | 25 | 16 | 25 | 16 | 25 | 16 |
| | | | 20...25 | | | | 25 | | 16 | | 25 | |
| | | | 32 | | | | 16 | | 16 | | 16 | |

| | | Supply side | | XT4 | XT1 | XT2 | XT4 | XT2 | XT4 | XT2 | XT4 |
|-----------|-------|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | S | H | H | H | L | L | V | V |
| Load side | Char | Icu[KA] | In [A] | 50 | 70 | 70 | 70 | 120 | 120 | 150 | 150 |
| DS203NC L | C | 6 | 6...25 | 10 | 16 | 20 | 10 | 20 | 10 | 20 | 10 |
| | | | 32 | 10 | 10 | 16 | 10 | 16 | 10 | 16 | 10 |
| DS203NC | B,C,K | 10 | 6...16 | 25 | 16 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 20...25 | 16 | | 25 | 16 | 25 | 16 | 25 | 16 |
| | | | 32 | 16 | | 16 | 16 | 16 | 16 | 16 | 16 |

MCCB @ 415V - DS203NC @ 400V

| | | Supply side | | T1 | T1 | T1 | T2 | T3 | T4 | T2 | T3 | T4 | T2 | T4 | T2 | T4 | T4 |
|-----------|-------|-------------|--------|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| | | | | B | C | N | N | N | N | S | S | S | H | H | L | L | V |
| Load side | Char | Icu [kA] | In[A] | 16 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 | 70 | 70 | 85 | 120 | 200 |
| DS203NC L | C | 6 | 6...25 | 16 | 16 | 16 | 20 | 10 | 10 | 20 | 10 | 10 | 20 | 10 | 20 | 10 | 10 |
| | | | 32 | 10 | 10 | 10 | 16 | 10 | 10 | 16 | 10 | 10 | 16 | 10 | 16 | 10 | 10 |
| DS203NC | B,C,K | 10 | 6...25 | 16 | 16 | 16 | 25 | 16 | 16 | 25 | 16 | 16 | 25 | 16 | 25 | 16 | 16 |
| | | | 32 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

S200 - DS203NC @ 400V

| | | Supply side | | S200 | | S200M | | S200P | | S200P | |
|-----------|-------|-------------|--------|---------|--|----------|--|----------|--|-------|--|
| | | | | B-C | | B,C | | B,C | | B,C | |
| Load side | Char | Icu [kA] | In[A] | 20 | | 25 | | 40 | | 25 | |
| | | | | 0,5..63 | | 0.5...63 | | 0.5...25 | | 32 | |
| DS203NC L | C | 6 | 6...32 | 20 | | 25 | | 40 | | 25 | |
| DS203NC | B,C,K | 10 | 6...32 | 20 | | 25 | | 40 | | 25 | |

RCDs technical details

Coordination tables: back-up DS203NC

S800 - DS203NC @ 400V

| | | Supply side | | S800N | | | | | | | |
|-----------|-------|-------------|----------|-------|----|----|----|----|----|-----|-----|
| | | Char | B,C,D | | | | | | | | |
| Load side | | | Icu [kA] | 36 | | | | | | | |
| | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS203NC L | C | 6 | 6...16 | 36 | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 36 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS203NC | B,C,K | 10 | 6...16 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 20 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 25 | | | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 32 | | | | 36 | 36 | 36 | 36 | 36 |

| | | Supply side | | S800S | | | | | | | |
|-----------|-------|-------------|----------|-------|----|----|----|----|----|----|-----|
| | | Char | B,C,D,K | | | | | | | | |
| Load side | | | Icu [kA] | 50 | | | | | | | |
| | | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| DS203NC L | C | 6 | 6...16 | 50 | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 40 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS203NC | B,C,K | 10 | 6...16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | | | | | 50 | 50 | 50 | 50 | 50 |

| | | Supply side | | S800B | | | | | | | |
|-----------|-----------|-------------|-------|-------|----|----|----|----|----|-----|------|
| | Char | B,C,D,K | | | | | | | | | |
| Load side | | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125* |
| | DS203NC L | | C | 6 | 6 | - | 16 | 16 | 16 | 16 | 15 |
| 8 | | - | | | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| 10 | | - | | | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| 13 | | - | | | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| 16 | | - | | | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| 20 | | - | | | 16 | 16 | 16 | 16 | 15 | 15 | 15 |
| 25 | | - | | | | 16 | 16 | 16 | 15 | 15 | 15 |
| 32 | | - | | | | | 16 | 16 | 15 | 15 | 15 |
| DS203NC | B,C,K | 10 | 6 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 8 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 10 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 13 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 16 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 20 | - | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 25 | - | | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 32 | - | | | 16 | 16 | 16 | 16 | 16 |

*Only S800B B,C

RCDs technical details

Coordination tables: back-up DS203NC

| | | Supply side | | S800C | | | | | | | |
|-----------|-------|-------------|----|-------|----|----|----|----|-----|-----|----|
| | Char | B,C,D,K | | | | | | | | | |
| Load side | | Icu [kA] | 25 | | | | | | | | |
| | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| DS203NC L | C | 6 | 6 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 8 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 10 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 13 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 16 | 25 | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 20 | | 25 | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 25 | | | 25 | 25 | 18 | 15 | 15 | 15 |
| | | | 32 | | | | 25 | 18 | 15 | 15 | 15 |
| DS203NC | B,C,K | 10 | 6 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 8 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 10 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 13 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 16 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 20 | | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 25 | | | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 32 | | | | 25 | 25 | 25 | 25 | 25 |

RCDs technical details

Coordination tables: back-up DSE201

Fuses - DSE201 @ 230/240 V

| | | | Supply side | Fuse 25gG | Fuse 40gG | Fuse 50gG | Fuse 63gG | Fuse 80gG | Fuse 100gG | Fuse 125gG | Fuse 160gG | Fuse 200gG |
|-----------|----------|-------|-------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
| Load side | Icu [kA] | Char. | In [A] | 25 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 |
| DSE201 | 6 | B,C | up to 20 | 25 | 25 | 20 | 10 | 10 | 10 | 10 | 10 | 10 |
| | | | 25-32 | - | 25 | 20 | 10 | 7,5 | 7,5 | 7,5 | 7,5 | 7,5 |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | T1 | T2 | T3 | T4 |
|-----------|----------|-------|-------------|-----|-----|-----|-----|
| Load side | Icu [kA] | Char. | In [A] | 160 | 160 | 250 | 250 |
| DSE201 | 6 | B,C | up to 20 | 10 | 10 | 10 | 10 |
| | | | 25-32 | 7,5 | 7,5 | 7,5 | 7,5 |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | XT1 | XT2 | XT3 | XT4 |
|-----------|----------|-------|-------------|-----|-----|-----|-----|
| Load side | Icu [kA] | Char. | In [A] | 160 | 160 | 250 | 250 |
| DSE201 | 6 | B,C | up to 20 | 10 | 10 | 10 | 10 |
| | | | 25-32 | 7,5 | 7,5 | 7,5 | 7,5 |

RCDs technical details

Coordination tables: back-up DSE201 M

Fuses/S700 - DSE201 M @ 230/240 V

| Load side | Char. | Supply side | | Fuse gG | | S700 | S750DR |
|-----------|-------|-------------|------------|---------|--------|--------|--------|
| | | Icu [kA] | In [A] | In [A] | In [A] | In [A] | In [A] |
| DSE201 M | B | 15 | 6 | 63 | | 100 | 63 |
| | | | 10, 16, 20 | 100 | | 100 | 63 |
| | | | 25, 32 | 100 | | 100 | 63 |
| | | | 40 | 125 | | 100 | 63 |
| | | 10 | 50 | 160 | | 100 | 63 |
| | C | 15 | 6 | 40 | | 100 | 63 |
| | | | 10, 16, 20 | 100 | | 100 | 63 |
| | | | 25, 32 | 100 | | 100 | 63 |
| | | | 40 | 125 | | 100 | 63 |
| | | 10 | 50 | 160 | | 100 | 63 |

This table shows coordination between DSE201 M and the Supply side fuse maximum current value. Combination of the two protections allows the breaking capacity to be elevated up to that of the combined fuse.

I.e. Load side RCBO DSE201 M-C16, Supply side fuse with In up to 100 A (breaking capacity: 100 kA). RCBO protection up to 100 kA

RCDs technical details

Coordination tables: back-up DSE201 M

MCCB @ 415 V - DSE201 M @ 230/240 V

| | | Supply side | | XT1 | XT1 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT3 | XT4 | XT1 | XT2 | XT4 | XT2 | XT4 | XT2 | XT4 |
|-----------|-------|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | B | C | N | N | N | N | S | S | S | S | H | H | H | L | L | V | V |
| Load side | Char. | Icu [kA] | In [A] | 18 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 120 | 120 | 150 | 150 |
| DSE201 M | B,C | 6, 10 | | 18 | 25 | 30 | 36 | 36 | 36 | 30 | 50 | 40 | 40 | 30 | 70 | 40 | 40 | 30 | 40 | 30 |
| | | 15 | 16...40 | 18 | 25 | 30 | 36 | 36 | 36 | 30 | 50 | 25 | 40 | 30 | 60 | 40 | 40 | 30 | 40 | 30 |
| | | 10 | 50 | 18 | 25 | 30 | 36 | 16 | 36 | 30 | 36 | 16 | 40 | 30 | 40 | 40 | 40 | 30 | 40 | 30 |

MCCB @ 415 V - DSE201M @ 230/240 V

| | | Supply side | | T1 | T1 | T1 | T2 | T3 | T4 | T2 | T3 | T4 | T2 | T4 | T2 | T4 | T4 |
|-----------|-------|-------------|--------|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| | | | | B | C | N | N | N | N | S | S | S | H | H | L | L | V |
| Load side | Char. | Icu [kA] | In [A] | 16 | 25 | 36 | 36 | 36 | 36 | 50 | 50 | 50 | 70 | 70 | 85 | 120 | 200 |
| DSE201 M | B,C | 15 | 6, 10 | 16 | 25 | 30 | 36 | 36 | 36 | 50 | 40 | 40 | 70 | 40 | 85 | 40 | 40 |
| | | 16...40 | | | | | | | | | | | | | | | |
| | | 10 | 50 | 16 | 25 | 30 | 36 | 16 | 36 | 36 | 16 | 40 | 40 | 40 | 40 | 40 | 40 |

S800 - DSE201M @ 230/240 V

| | | S800U | | | | | | | | | |
|-----------|-------|-------------|--------|-----|----|----|----|----|----|-----|-----|
| | | Supply side | | K,Z | | | | | | | |
| | | | | 50 | | | | | | | |
| | | | | | | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201 M | B,C | 15 | 6...16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 |
| | | | 40 | | | | | 50 | 50 | 50 | 50 |
| | | 10 | 50 | | | | | | 50 | 50 | 50 |

S800 - DSE201M @ 230/240 V

| | | S800S | | | | | | | | | |
|-----------|-------|-------------|--------|---------|----|----|----|----|----|-----|-----|
| | | Supply side | | B,C,D,K | | | | | | | |
| | | | | 50 | | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201 M | B,C | 15 | 6...16 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 20 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 25 | | | 50 | 50 | 50 | 50 | 50 | 50 |
| | | | 32 | | | | 50 | 50 | 50 | 50 | 50 |
| | | | 40 | | | | | 50 | 50 | 50 | 50 |
| | | 10 | 50 | | | | | | 50 | 50 | 50 |

RCDs technical details

Coordination tables: back-up DSE201 M

S800 - DSE201M @ 230/240 V

| | | | | S800N | | | | | | | |
|-----------|-------|----------|--------|-------------|----|----|----|----|----|-----|-----|
| | | | | Supply side | | | | | | | |
| | | | | B,C,D | | | | | | | |
| | | | | 36 | | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201 M | B,C | 15 | 6...16 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 20 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 25 | | | 36 | 36 | 36 | 36 | 36 | 36 |
| | | | 32 | | | | 36 | 36 | 36 | 36 | 36 |
| | | | 40 | | | | | 36 | 36 | 36 | 36 |
| | | 10 | 50 | | | | | | 36 | 36 | 36 |

S800 - DSE201M @ 230/240 V

| | | | | S800C | | | | | | | |
|-----------|-------|----------|--------|-------------|----|----|----|----|----|-----|-----|
| | | | | Supply side | | | | | | | |
| | | | | B,C,D | | | | | | | |
| | | | | 25 | | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201 M | B,C | 15 | 6...16 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 20 | | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 25 | | | 25 | 25 | 25 | 25 | 25 | 25 |
| | | | 32 | | | | 25 | 25 | 25 | 25 | 25 |
| | | | 40 | | | | | 25 | 25 | 25 | 25 |
| | | 10 | 50 | | | | | | 25 | 25 | 25 |

S800 - DSE201M @ 230/240 V

| | | S800B | | | | | | | | |
|-----------|-------|-------------|--------|---------|----|----|----|----|-----|-----|
| | | Supply side | | B,C,D,K | | | | | | |
| | | | | 25 | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201 M | B,C | 15 | 6...16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 20 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 25 | | 16 | 16 | 16 | 16 | 16 | 16 |
| | | | 32 | | | 16 | 16 | 16 | 16 | 16 |
| | | | 40 | | | | 16 | 16 | 16 | 16 |
| | | 10 | 50 | | | | | 16 | 16 | 16 |

S200P - DSE201M @ 230/240 V

| | | | | S200P | | | | S200P | | | |
|-----------|-------|----------|--------|-------------|--|--|--|---------|--|--|--|
| | | | | Supply side | | | | B,C | | | |
| | | | | B,C | | | | B,C | | | |
| Load side | Char. | Icu [kA] | In[A] | 0.5...25 | | | | 32...63 | | | |
| DSE201 M | B,C | 15 | 6...40 | 25 | | | | 15 | | | |
| | | 10 | 50 | | | | | 15 | | | |

RCDs technical details

Coordination tables: selectivity DS202C

MCCB @ 415 V - DS202C @ 230/240V

| | | | Supply S. T1 | | | | | | | | | | | | | | T2 | | | | | | | | |
|----------|------------|----------|--------------|---------|----|----|----|----|-----|-----|-----|-----|-----|------------------|-----|----|----------------|------------|----------------|----|----------------|--|--|--|--|
| | | | Version | B, C, N | | | | | | | | | | | | | | N, S, H, L | | | | | | | |
| | | | Release | TMD | | | | | | | | | | | | | | TMD, MA | | | | | | | |
| Load S. | Char. | Icu [kA] | In [A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 ² | 160 | 16 | 20 | 25 | 32 | 40 | 50 | | | | |
| DS202C | B, C, D, K | 10 | ≤4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | | | |
| | B, C, D, K | | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | | | | | |
| | B, C, D, K | | 8 | | | 3 | 3 | 3 | 4.5 | 7.5 | 8.5 | T | T | T | T | | 3 ¹ | 3 | 3 | 3 | 4.5 | | | | |
| | B, C, D, K | | 10 | | | 3 | 3 | 3 | 4.5 | 7.5 | 8.5 | T | T | T | T | | 3 ¹ | 3 | 3 | 3 | 4.5 | | | | |
| | B, C, D, K | | 13 | | | | | 3 | 4.5 | 5 | 7.5 | T | T | T | T | | | | 3 ¹ | 3 | 4.5 | | | | |
| | B, C, D, K | | 16 | | | | | 3 | 4.5 | 5 | 7.5 | T | T | T | T | | | | 3 ¹ | 3 | 4.5 | | | | |
| | B, C, D, K | | 20 | | | | | | 3 | 5 | 6 | T | T | T | T | | | | 3 ¹ | | 3 | | | | |
| | B, C, D, K | | 25 | | | | | | | 5 | 6 | T | T | T | T | | | | | | 3 ¹ | | | | |
| | B, C, D, K | | 32 | | | | | | | | 6 | 7.5 | T | T | T | | | | | | 3 ¹ | | | | |
| | B, C, D, K | | 40 | | | | | | | | | 7.5 | T | T | T | | | | | | | | | | |
| DS202C M | B, C | 10 | ≤4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | | | |
| | B, C | | 6 | 6 | 6 | 6 | 6 | 6 | 12 | T | T | T | T | T | T | T | T | T | T | T | | | | | |
| | B, C | | 10 | | | 3 | 3 | 3 | 4.5 | 7.5 | 8.5 | T | T | T | T | | 3 ¹ | 3 | 3 | 3 | 4.5 | | | | |
| | B, C | | 13 | | | | | 3 | 4.5 | 5 | 7.5 | T | T | T | T | | | | 3 ¹ | 3 | 4.5 | | | | |
| | B, C | | 16 | | | | | 3 | 4.5 | 5 | 7.5 | T | T | T | T | | | | 3 ¹ | 3 | 4.5 | | | | |
| | B, C | | 20 | | | | | | 3 | 5 | 6 | T | T | T | T | | | | 3 ¹ | | 3 | | | | |
| | B, C | | 25 | | | | | | | 5 | 6 | T | T | T | T | | | | | | 3 ¹ | | | | |
| | B, C | | 32 | | | | | | | | 6 | 7.5 | T | T | T | | | | | | 3 ¹ | | | | |
| | B, C | | 40 | | | | | | | | | 7.5 | T | T | T | | | | | | | | | | |

Supply side circuit-breaker 4P (load side circuit branched between one phase and the neutral)

Load side circuit-breaker 1P+N (230/240 V)

1 Value valid for magnetic only supply side circuit-breaker

2 Neutral at 50%

RCDs technical details

Coordination tables: selectivity DS202C

| T3 | | | | | | | | | | | | | | | | | | | | | | |
|------|----------------|-----|------------------|-----|------------------|-----|----|----|----|-----|---------|-----|----------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|
| N, S | | | | | | | | | | | | | | | | | | | | | | |
| EL | | | | | | | | | | | TMD, MA | | | | | | | | | | | |
| 63 | 80 | 100 | 125 ² | 125 | 160 ² | 160 | 10 | 25 | 63 | 100 | 160 | 63 | 80 | 100 | 125 ² | 125 | 160 ² | 160 | 200 ² | 200 | 250 ² | 250 |
| T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| T | T | T | T | T | T | T | | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| 7.5 | 8.5 | T | T | T | T | T | | T | T | T | T | 7.5 | 8.5 | T | T | T | T | T | T | T | T | T |
| 7.5 | 8.5 | T | T | T | T | T | | T | T | T | T | 7.5 | 8.5 | T | T | T | T | T | T | T | T | T |
| 5 | 7.5 | T | 7.5 | T | T | T | | | T | T | T | 5 | 7.5 | T | 7.5 | T | T | T | T | T | T | T |
| 5 | 7.5 | T | 7.5 | T | T | T | | | T | T | T | 5 | 7.5 | T | 7.5 | T | T | T | T | T | T | T |
| 5 | 6 | T | 6 | T | T | T | | | T | T | T | 5 | 6 | T | 6 | T | T | T | T | T | T | T |
| 5 | 6 | T | 6 | T | T | T | | | T | T | T | 5 | 6 | T | 6 | T | T | T | T | T | T | T |
| | 6 | 7.5 | 6 | T | T | T | | | T | T | T | | 6 | 7.5 | 6 | T | T | T | T | T | T | T |
| | 6 ¹ | 7.5 | 6 | T | T | T | T | | | T | T | | 6 ¹ | 7.5 | | T | T | T | T | T | T | T |
| T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| T | T | T | T | T | T | T | | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| 7.5 | 8.5 | T | T | T | T | T | | T | T | T | T | 7.5 | 8.5 | T | T | T | T | T | T | T | T | T |
| 5 | 7.5 | T | 7.5 | T | T | T | | | T | T | T | 5 | 7.5 | T | 7.5 | T | T | T | T | T | T | T |
| 5 | 7.5 | T | 7.5 | T | T | T | | | T | T | T | 5 | 7.5 | T | 7.5 | T | T | T | T | T | T | T |
| 5 | 6 | T | 6 | T | T | T | | | T | T | T | 5 | 6 | T | 6 | T | T | T | T | T | T | T |
| 5 | 6 | T | 6 | T | T | T | | | T | T | T | 5 | 6 | T | 6 | T | T | T | T | T | T | T |
| | 6 | 7.5 | 6 | T | T | T | | | T | T | T | | 6 | 7.5 | 6 | T | T | T | T | T | T | T |
| | 6 ¹ | 7.5 | 6 | T | T | T | | | | T | T | | 6 ¹ | 7.5 | | T | T | T | T | T | T | T |

1 Value valid for magnetic only supply side circuit-breaker

2 Neutral at 50%

RCDs technical details

Coordination tables: selectivity DS202C

MCCB@415V - DS202C @230/240V

| | | | Supply S. | XT1 | | | | | | | | | | | |
|----------|---------|----------|-----------|-----------|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
| | | | Version | B,C,N,S,H | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | |
| Load S. | Char | Icu [kA] | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | |
| DS202C | B,C,D,K | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | 6 | T | T | T | |
| | | | 25 | | | | | | | 5 | 6 | T | T | T | |
| | | | 32 | | | | | | | | 6 | 7,5 | T | T | |
| | | | 40 | | | | | | | | | 7,5 | T | T | |
| DS202C M | B,C | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | 6 | T | T | T | |
| | | | 25 | | | | | | | 5 | 6 | T | T | T | |
| | | | 32 | | | | | | | | 6 | 7,5 | T | T | |
| | | | 40 | | | | | | | | | 7,5 | T | T | |

RCDs technical details

Coordination tables: selectivity DS202C

| | | | Supply S. XT2 | | | | | | | | | | | | | | | | |
|----------|---------|----------|---------------|-----------|----------------|----|----------------|----|----------------|-----|----------------|-----|-----|-----|----|----|----|-----|-----|
| | | | Version | N,S,H,L,V | | | | | | | | | | | | | | | |
| | | | Release | TM EL | | | | | | | | | | | | | | | |
| Load S. | Char | Icu [kA] | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 10 | 25 | 63 | 100 | 160 |
| DS202C | B,C,D,K | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 8 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | | | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T |
| DS202C M | B,C | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | | | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T |

¹ Value valid in case of Supply S. breaker only magnetic

RCDs technical details

Coordination tables: selectivity DS202C

| | | | Supply S. | XT3 | | | | | | |
|----------|---------|----------|-----------|-----|----------------|-----|-----|-----|-----|-----|
| | | | Version | N,S | | | | | | |
| | | | Release | TM | | | | | | |
| Load S. | Char | Icu [kA] | In[A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DS202C | B,C,D,K | 10 | ≤ 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 8 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| | | | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |
| DS202C M | B,C | 10 | ≤ 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| | | | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |

¹ Value valid in case of Supply S. breaker only magnetic

RCDs technical details

Coordination tables: selectivity DS202C

| | | | Supply S. | XT4 | | | | | | | | | | | | | | | | | | | |
|----------|---------|----------|-----------|----------------|----|----------------|----|----------------|-----|----------------|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|---|--|
| | | | Version | N,S,H,L,V | | | | | | | | | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | | | | EL | | | | |
| Load S. | Char | Icu [kA] | In[A] | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 225 | 250 | 40 | 63 | 100 | 160 | 250 | | |
| DS202C | B,C,D,K | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | |
| | | | 8 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 10 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 13 | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 16 | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 20 | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 25 | | | | | 3 ¹ | 5 | 6 | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 32 | | | | | 3 ¹ | | 6 | 7,5 | T | T | T | T | T | T | | T | T | T | T | |
| | | | 40 | | | | | | | 6 ¹ | 7,5 | T | T | T | T | T | T | | | T | T | T | |
| DS202C M | B,C | 10 | ≤ 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | | |
| | | | 10 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 13 | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 16 | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | T | 3 | T | T | T | T | |
| | | | 20 | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 25 | | | | | 3 ¹ | 5 | 6 | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 32 | | | | | 3 ¹ | | 6 | 7,5 | T | T | T | T | T | T | | T | T | T | T | |
| | | | 40 | | | | | | | 6 ¹ | 7,5 | T | T | T | T | T | T | | | T | T | T | |

¹ Value valid in case of Supply S. breaker only magnetic

RCDs technical details

Coordination tables: selectivity DS201

MCCB Tmax XT1 @ 415V - DS201 (2019) @ 230/240V

| Load side | Char | Icu [kA] | Supply side | XT1 | | | | | | | | | | | |
|----------------|-------|----------|-------------|-----------|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
| | | | Version | B,C,N,S,H | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | |
| | | | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | T | T | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | T | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | T | T | T | T | |
| | | | 25 | | | | | | | 5 | T | T | T | T | |
| | | | 32 | | | | | | | | T | T | T | T | |
| | | | | | | | | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 2 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | 6 | T | T | T | |
| | | | 25 | | | | | | | 5 | 6 | T | T | T | |
| | | | 32 | | | | | | | | 6 | 7,5 | T | T | |
| | | | 40 | | | | | | | | | 7,5 | T | T | |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | 6 | T | T | T | |
| | | | 25 | | | | | | | 5 | 6 | T | T | T | |
| | | | 32 | | | | | | | | 6 | 7,5 | T | T | |
| | | | 40 | | | | | | | | | 7,5 | T | T | |

RCDs technical details

Coordination tables: selectivity DS201

MCCB Tmax XT2 @ 415V - DS201 (2019) @ 230/240V

| | | | Supply side | | | | | | | | | | | | | | | | |
|----------------|--------|----------|-------------------|----|----------------|----|----------------|----|----------------|-----|----------------|-----|-----|-----|----|----|----|-----|-----|
| | | | XT2 | | | | | | | | | | | | | | | | |
| | | | Version N,S,H,L,V | | | | | | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | | | | |
| Load side | Char | Icu [kA] | In[A] | EL | | | | | | | | | | | | | | | |
| | | | | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 10 | 25 | 63 | 100 | 160 |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | T | T | T | T | T | | T | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | T | T | T | T | | | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | T | T | T | T | | | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | T | T | T | T | | | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | T | T | T | T | | | T | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 2 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 8 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | | | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T |
| DS201 (2019) M | B,C, K | 15 | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | | | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T |

¹ Value valid in case of Supply S. breaker only magnetic

RCDs technical details

Coordination tables: selectivity DS201

MCCB Tmax XT3 @ 415V - DS201 (2019) @ 230/240V

| Load side | Char | Icu [kA] | Supply side XT3 | | | | | | | |
|----------------|-------|----------|-----------------|-----|----------------|-----|-----|-----|-----|-----|
| | | | Version | N,S | | | | | | |
| | | | Release | TM | | | | | | |
| | | | In[A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 16 | 5 | T | T | T | T | T | T |
| | | | 20 | 5 | T | T | T | T | T | T |
| | | | 25 | 5 | T | T | T | T | T | T |
| | | | 32 | | T | T | T | T | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T |
| | | | 2 | T | T | T | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 8 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| DS201 (2019) M | B,C,K | 15 | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| | | | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |

Coordination tables: selectivity DS201

| | | | Supply side | XT4 | | | | | | | | | | | | | | | | | | |
|----------------|--------|----------|-------------|-----------|----------------|----|----------------|----|----------------|-----|----------------|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|
| | | | Version | N,S,H,L,V | | | | | | | | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | | | | | | | |
| | | | | EL | | | | | | | | | | | | | | | | | | |
| Load side | Char | Icu [kA] | In [A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 225 | 250 | 40 | 63 | 100 | 160 | 250 |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 10 | 3 | 3 ¹ | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | T | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | T | T | T | T | T | T | T | | T | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | T | T | T | T | T | T | T | | T | T | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 2 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 8 | 3 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 10 | 3 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | T | T | T | | T | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | T | T | T | | T | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | T | T | T | | T | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | T | T | T | | | T | T | T |
| DS201 (2019) M | B,C, K | 15 | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 10 | 3 | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | T | T | T | 3 | T | T | T | T |
| | | | 20 | | | | 3 ¹ | | 3 | 5 | 6 | T | T | T | T | T | T | | T | T | T | T |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | T | T | T | | T | T | T | T |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | T | T | T | | T | T | T | T |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | T | T | T | | | T | T | T |

| | | | Supply side | | | | | | | | | | | | |
|----------------|-------|----------|-------------|---------|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
| | | | Version | T1 | | | | | | | | | | | |
| | | | | B,C,N | | | | | | | | | | | |
| | | | | Release | | | | | | | | | | | |
| Load side | Char | Icu [kA] | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | |
| | | | TMD | | | | | | | | | | | | |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 10 | 3 | | | 3 | 3 | 4,5 | T | T | T | T | T | |
| | | | 16 | 3 | | | | | 4,5 | 5 | T | T | T | T | |
| | | | 20 | 3 | | | | | 5 | T | T | T | T | | |
| | | | 25 | 5 | | | | | T | T | T | T | | | |
| | | | 32 | T | | | | | T | T | T | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 2 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 8 | 3 | | | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 10 | 3 | | | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | 3 | | | | | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | 3 | | | | | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | 3 | | | | | 5 | 6 | T | T | T | | |
| | | | 25 | 5 | | | | | 6 | T | T | T | | | |
| | | | 32 | 6 | | | | | 7,5 | T | T | | | | |
| | | | 40 | 7,5 | | | | | T | T | | | | | |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 10 | 3 | | | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | 3 | | | | | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | 3 | | | | | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | 3 | | | | | 5 | 6 | T | T | T | | |
| | | | 25 | 5 | | | | | 6 | T | T | T | | | |
| | | | 32 | 6 | | | | | 7,5 | T | T | | | | |
| | | | 40 | 7,5 | | | | | T | T | | | | | |

RCDs technical details

Coordination tables: selectivity DS201

MCCB Tmax T2 @ 415V - DS201 (2019) @ 230/240V

| | | | Supply side | | | | | | | | | | | | | | | | | |
|----------------|-------|----------|-------------|---------|----------------|----|----------------|----|----------------|-----|----------------|-----|-----|-----|----|----|----|-----|-----|--|
| | | | T2 | | | | | | | | | | | | | | | | | |
| | | | Version | | | | | | | | | | | | | | | | | |
| | | | N,S,H,L | | | | | | | | | | | | | | | | | |
| Load side | Char | Icu [kA] | Release | TMD, MA | | | | | | | | | | EL | | | | | | |
| | | | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 10 | 25 | 63 | 100 | 160 | |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | T | T | T | T | T | | T | T | T | T | |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | T | T | T | T | | | T | T | T | |
| | | | 20 | | | | 3 ¹ | 3 | 3 | 5 | T | T | T | T | | | T | T | T | |
| | | | 25 | | | | | | 3 ¹ | 5 | T | T | T | T | | | T | T | T | |
| | | | 32 | | | | | | 3 ¹ | | T | T | T | T | | | T | T | T | |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 2 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 8 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T | |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T | |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T | |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T | |
| | | | 20 | | | | 3 ¹ | 3 | 3 | 5 | 6 | T | T | T | | | T | T | T | |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T | |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T | |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T | |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 6 | T | T | T | T | T | T | T | T | T | T | T | | T | T | T | T | |
| | | | 10 | | 3 ¹ | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | | T | T | T | T | |
| | | | 13 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T | |
| | | | 16 | | | | 3 ¹ | 3 | 4,5 | 5 | 7,5 | T | T | T | | | T | T | T | |
| | | | 20 | | | | 3 ¹ | 3 | 3 | 5 | 6 | T | T | T | | | T | T | T | |
| | | | 25 | | | | | | 3 ¹ | 5 | 6 | T | T | T | | | T | T | T | |
| | | | 32 | | | | | | 3 ¹ | | 6 | 7,5 | T | T | | | T | T | T | |
| | | | 40 | | | | | | | | 6 ¹ | 7,5 | T | T | | | | T | T | |

RCDs technical details

Coordination tables: selectivity DS201

MCCB Tmax T3 @ 415V - DS201 (2019) @ 230/240V

| Load side | Char | Icu [kA] | Supply side | T3 | | | | | | |
|----------------|-------|----------|-------------|---------|----------------|-----|-----|-----|-----|-----|
| | | | Version | N,S | | | | | | |
| | | | Release | TMD, MA | | | | | | |
| | | | In[A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 16 | 5 | T | T | T | T | T | T |
| | | | 20 | 5 | T | T | T | T | T | T |
| | | | 25 | 5 | T | T | T | T | T | T |
| | | | 32 | | T | T | T | T | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T |
| | | | 2 | T | T | T | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 8 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| DS201 (2019) M | B,C,K | 15 | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| | | | 32 | | 6 | 7,5 | T | T | T | T |
| | | | 40 | | 6 ¹ | 7,5 | T | T | T | T |

RCDs technical details

Coordination tables: selectivity DS201

S800N / S800S (Char B) - DS201 (2019) @ 230/240V

| | | Supply side | | S800N / S800S | | | | | | | |
|----------------|-------|-------------|--------------|---------------|----|------|------|------|-----|-----|-----|
| | | Version | | B | | | | | | | |
| Load side | Char | Icu [kA] | 36 / 50 | | | | | | | | |
| | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS201 (2019) L | C | 6 | 6 | | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 |
| | | | 10 | | | | 0.5 | 1.1 | 1.4 | 2 | 3 |
| | | | 16 | | | | | 0.8 | 1.2 | 1.7 | 2.5 |
| | | | 20 | | | | | | 1 | 1.5 | 2.1 |
| | | | 25 | | | | | | | 1.3 | 1.8 |
| | | | 32 | | | | | | | 1.1 | 1.7 |
| | | | DS201 (2019) | B,C,K | 10 | 1 | | 0.5 | 0.8 | 1.6 | 5 |
| 2 | | 0.433 | | | | 0.6 | 1.3 | 4 | 9 | T | T |
| 4 | | | | | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 |
| 6 | | | | | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 |
| 8 | | | | | | | 0.55 | 1.3 | 1.5 | 2.4 | 3.5 |
| 10 | | | | | | | 0.5 | 1.1 | 1.4 | 2 | 3 |
| 13 | | | | | | | | 0.9 | 1.3 | 1.9 | 2.8 |
| 16 | | | | | | | | 0.8 | 1.2 | 1.7 | 2.5 |
| 20 | | | | | | | | | 1 | 1.5 | 2.1 |
| 25 | | | | | | | | | | 1.3 | 1.8 |
| 32 | | | | | | | | | | 1.1 | 1.7 |
| 40 | | | | | | | | | | | 1.6 |
| DS201 (2019) M | B,C,K | 15 | 4 | | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 |
| | | | 6 | | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 |
| | | | 10 | | | | 0.5 | 1.1 | 1.4 | 2 | 3 |
| | | | 13 | | | | | 0.95 | 1.3 | 1.7 | 2.8 |
| | | | 16 | | | | | 0.8 | 1.2 | 1.7 | 2.5 |
| | | | 20 | | | | | | 1 | 1.5 | 2.1 |
| | | | 25 | | | | | | | 1.3 | 1.8 |
| | | | 32 | | | | | | | 1.1 | 1.7 |
| | | | 40 | | | | | | | | 1.6 |

Coordination tables: selectivity DS201

S800N / S800S (Char C) - DS201 (2019) @ 230/240V

| | | Supply side | | S800N / S800S | | | | | | | | |
|----------------|-------|-------------|---------|---------------|------|------|------|-----|------|-----|-----|-----|
| | | Version | | C | | | | | | | | |
| Load side | Char | Icu [kA] | 36 / 50 | | | | | | | | | |
| | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| DS201 (2019) L | C | 6 | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 | |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | | | | 1 | 1.5 | 2.5 |
| | | | | | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | 0.55 | 0.6 | 1.4 | 3.4 | 7.2 | T | T | T | |
| | | | 2 | 0.43 | 0.55 | 1.2 | 3 | 6.6 | T | T | T | |
| | | | 4 | | 0.43 | 0.75 | 1.3 | 2.1 | 3.9 | 6.6 | T | |
| | | | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 | |
| | | | 8 | | | 0.5 | 1.25 | 1.4 | 2.2 | 3.2 | 5 | |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 13 | | | 0.38 | 0.83 | 1.2 | 1.75 | 2.6 | 3.9 | |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | | | | 1 | 1.5 | 2.5 |
| | | | 40 | | | | | | | | 1.4 | 2.1 |
| DS201 (2019) M | B,C,K | 15 | 4 | | 0.43 | 0.75 | 1.3 | 2.1 | 3.9 | 6.6 | T | |
| | | | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 | |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 13 | | | 0.35 | 0.9 | 1.2 | 1.7 | 2.6 | 3.8 | |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | | | | 1 | 1.5 | 2.5 |
| | | | 40 | | | | | | | | 1.4 | 2.1 |

RCDs technical details

Coordination tables: selectivity DS201

S800 N / S800S (Char D) - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800N / S800S | | | | | | | |
|----------------|-------|-------------|-------|---------------|------|------|-----|-----|-----|-----|-----|
| | | Version | | D | | | | | | | |
| | | Icu [kA] | | 36 / 50 | | | | | | | |
| | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS201 (2019) L | C | 6 | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 1.6 | 4.8 | T | T | T | T | T | T |
| | | | 2 | 1.3 | 4.1 | T | T | T | T | T | T |
| | | | 4 | 0.8 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 8 | 0.4 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | 1.1 | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 | 9.6 |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| DS201 (2019) M | B,C,K | 15 | 4 | 0.8 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 | 9.5 |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | | 1.7 | 2.7 | 4 | 5 |

RCDs technical details

Coordination tables: selectivity DS201

S800S (Char K) - DS201 (2019) @ 230/240V

| | | Supply side | | S800S | | | | | | | | |
|----------------|-------|-------------|---------|-------|------|------|------|-----|-----|-----|-----|-----|
| | | Version | | K | | | | | | | | |
| Load side | Char | Icu [kA] | 36 / 50 | | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| | | | 6 | 1.3 | | | 2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | 1.2 | | | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | 0.9 | | | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 1.6 | 4.8 | T | T | T | T | T | T | T |
| | | | 2 | 1.3 | 4.1 | T | T | T | T | T | T | T |
| | | | 4 | 0.8 | 1.6 | 3 | 5.4 | 7.6 | T | T | T | T |
| | | | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T | T |
| | | | 8 | 0.4 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T | T |
| | | | 13 | 1.1 | | | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 | 9.6 |
| | | | 16 | 0.9 | | | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) M | B,C,K | 15 | 4 | 1.6 | | | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 1.3 | | | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 10 | 1.2 | | | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 | 9.5 |
| | | | 16 | 0.9 | | | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | | | 1.7 | 2.7 | 4 | 5 |

Coordination tables: selectivity DS201

| | | Supply side | | S800C | | | | | | | |
|----------------|-------|-------------|----|-------|------|------|------|-----|-----|-----|--|
| | | Version | | B | | | | | | | |
| Load side | Char | Icu [kA] | 25 | | | | | | | | |
| | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| DS201 (2019) L | C | 6 | 6 | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 | |
| | | | 10 | | | 0.5 | 1.1 | 1.4 | 2 | 3 | |
| | | | 16 | | | | 0.8 | 1.2 | 1.7 | 2.5 | |
| | | | 20 | | | | | 1 | 1.5 | 2.1 | |
| | | | 25 | | | | | | 1.3 | 1.8 | |
| | | | 32 | | | | | | 1.1 | 1.7 | |
| | | | | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | 0.5 | 0.8 | 1.6 | 5 | 10 | T | T | |
| | | | 2 | 0.43 | 0.6 | 1.3 | 4 | 9 | T | T | |
| | | | 4 | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 | |
| | | | 6 | | | 0.6 | 1.4 | 1.6 | 2.6 | 3.8 | |
| | | | 8 | | | 0.55 | 1.3 | 1.5 | 2.4 | 3.5 | |
| | | | 10 | | | 0.5 | 1.1 | 1.4 | 2 | 3 | |
| | | | 13 | | | | 0.9 | 1.3 | 1.9 | 2.8 | |
| | | | 16 | | | | 0.8 | 1.2 | 1.7 | 2.5 | |
| | | | 20 | | | | | 1 | 1.5 | 2.1 | |
| | | | 25 | | | | | | 1.3 | 1.8 | |
| | | | 32 | | | | | | 1.1 | 1.7 | |
| | | | 40 | | | | | | | 1.6 | |
| DS201 (2019) M | B,C,K | 15 | 4 | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 | |
| | | | 6 | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 | |
| | | | 10 | | | 0.5 | 1.1 | 1.4 | 2 | 3 | |
| | | | 13 | | | | 0.95 | 1.3 | 1.7 | 2.8 | |
| | | | 16 | | | | 0.8 | 1.2 | 1.7 | 2.5 | |
| | | | 20 | | | | | 1 | 1.5 | 2.1 | |
| | | | 25 | | | | | | 1.3 | 1.8 | |
| | | | 32 | | | | | | 1.1 | 1.7 | |
| | | | 40 | | | | | | | 1.6 | |

RCDs technical details

Coordination tables: selectivity DS201

S800C (Char C) - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800C | | | | | | | |
|----------------|-------|-------------|---------|-------|------|------|------|-----|------|-----|-----|
| | | Icu [kA] | Version | C | | | | | | | |
| | | | 25 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 |
| | | | 32 | | | | | | 1 | 1.5 | 2.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 0.55 | 0.6 | 1.4 | 3.4 | 7.2 | T | T | T |
| | | | 2 | 0.43 | 0.55 | 1.2 | 3 | 6.6 | T | T | T |
| | | | 4 | | 0.43 | 0.75 | 1.3 | 2.1 | 3.9 | 6.6 | T |
| | | | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| | | | 8 | | | 0.5 | 1.25 | 1.4 | 2.2 | 3.2 | 5 |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| | | | 13 | | | 0.38 | 0.83 | 1.2 | 1.75 | 2.6 | 3.9 |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 |
| | | | 32 | | | | | | 1 | 1.5 | 2.5 |
| DS201 (2019) M | B,C,K | 15 | 40 | | | | | | | 1.4 | 2.1 |
| | | | 4 | | 0.43 | 0.75 | 1.3 | 2.1 | 3.9 | 6.6 | T |
| | | | 6 | | | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| | | | 10 | | | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| | | | 13 | | | 0.35 | 0.9 | 1.2 | 1.7 | 2.6 | 3.8 |
| | | | 16 | | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 |
| | | | 20 | | | | | 0.9 | 1.4 | 1.9 | 3.3 |
| | | | 25 | | | | | | 1.2 | 1.6 | 2.7 |
| | | | 32 | | | | | | 1 | 1.5 | 2.5 |
| | | | 40 | | | | | | | 1.4 | 2.1 |

RCDs technical details

Coordination tables: selectivity DS201

S800C (Char D) - DS201 (2019) @ 230/240V

| | | Supply side | | S800C | | | | | | |
|----------------|-------|-------------|----|-------|------|------|-----|-----|-----|-----|
| | | Version | D | | | | | | | |
| Load side | Char | Icu [kA] | 25 | | | | | | | |
| | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS201 (2019) L | C | 6 | 6 | 1.3 | 2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 1.6 | 4.8 | T | T | T | T | T |
| | | | 2 | 1.3 | 4.1 | T | T | T | T | T |
| | | | 4 | 0.8 | 1.6 | 3 | 5.4 | 7.6 | T | T |
| | | | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T |
| | | | 8 | 0.4 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 |
| | | | 13 | | 1.1 | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 |
| DS201 (2019) M | B,C,K | 15 | 4 | | 1.6 | 3 | 5.4 | 7.6 | T | T |
| | | | 6 | | 1.3 | 2 | 3.2 | 3.9 | 8 | T |
| | | | 10 | | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 |
| | | | 13 | | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 |
| | | | 16 | | | 1.4 | 1.8 | 2.6 | 5 | 6.3 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 |
| | | | 40 | | | | | 1.7 | 2.7 | 4 |
| | | | | | | | | | | 5 |

RCDs technical details

Coordination tables: selectivity DS201

S800C (Char K) - DS201 (2019) @ 230/240V

| | | Supply side | | S800C | | | | | | | |
|----------------|-------|-------------|-------|-------|------|------|-----|-----|-----|-----|-----|
| | | Version | | K | | | | | | | |
| Load side | Char | Icu [kA] | 25 | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | | 1.3 | 2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 1.6 | 4.8 | T | T | T | T | T | T |
| | | | 2 | 1.3 | 4.1 | T | T | T | T | T | T |
| | | | 4 | 0.8 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 8 | 0.4 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | 1.1 | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 | 9.6 |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) M | B,C,K | 15 | 4 | | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 10 | | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 | 9.5 |
| | | | 16 | | | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | | 1.7 | 2.7 | 4 | 5 |

RCDs technical details

Coordination tables: selectivity DS201

S800B (Char B) - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800B | | | | | | |
|----------------|-------|-------------|----|-------|------|------|------|-----|-----|-----|
| | | Version | | B | | | | | | |
| | | Icu [kA] | 16 | | | | | | | |
| | | In [A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| DS201 (2019) L | C | 6 | 6 | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 | |
| | | | 10 | | 0.5 | 1.1 | 1.4 | 2 | 3 | |
| | | | 16 | | | 0.8 | 1.2 | 1.7 | 2.5 | |
| | | | 20 | | | | 1 | 1.5 | 2.1 | |
| | | | 25 | | | | | 1.3 | 1.8 | |
| | | | 32 | | | | | 1.1 | 1.7 | |
| DS201 (2019) | B,C,K | 10 | 1 | 0.5 | 0.8 | 1.6 | 5 | 10 | T | T |
| | | | 2 | 0.43 | 0.6 | 1.3 | 4 | 9 | T | T |
| | | | 4 | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 |
| | | | 6 | | | 0.6 | 1.3 | 1.6 | 2.6 | 3.8 |
| | | | 8 | | | 0.55 | 1.1 | 1.5 | 2.4 | 3.5 |
| | | | 10 | | | 0.5 | 0.9 | 1.4 | 1.9 | 3 |
| | | | 13 | | | | 0.9 | 1.3 | 1.7 | 2.8 |
| | | | 16 | | | | 1.2 | 1.5 | 2.5 | |
| | | | 20 | | | | 1 | 1.3 | 2.1 | |
| | | | 25 | | | | | 1.1 | 1.8 | |
| | | | 32 | | | | | | 1.7 | |
| DS201 (2019) M | B,C,K | 15 | 4 | | 0.45 | 0.8 | 1.5 | 2.5 | 4 | 7.3 |
| | | | 6 | | | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 |
| | | | 10 | | | 0.5 | 1.1 | 1.4 | 2 | 3 |
| | | | 13 | | | | 0.95 | 1.3 | 1.7 | 2.8 |
| | | | 16 | | | | 0.8 | 1.2 | 1.7 | 2.5 |
| | | | 20 | | | | 1 | 1.5 | 2.1 | |
| | | | 25 | | | | | 1.3 | 1.8 | |
| | | | 32 | | | | | 1.1 | 1.7 | |
| | | | 40 | | | | | | 1.6 | |

Coordination tables: selectivity DS201

| | | Supply side | | S800B | | | | | | |
|----------------|-------|-------------|--------------|-------|------|------|-----|------|-----|-----|
| | | Version | | C | | | | | | |
| Load side | Char | Icu [kA] | 16 | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 0.55 | | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| | | | 10 | 0.45 | | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| | | | 16 | | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 |
| | | | 20 | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | 1 | 1.5 | 2.5 | |
| | | | DS201 (2019) | B,C,K | 10 | 1 | 0.6 | 1.4 | 3.4 | 7.2 |
| 2 | 0.55 | 1.2 | | | | 3 | 6.6 | T | T | T |
| 4 | 0.43 | 0.75 | | | | 1.3 | 2.1 | 3.9 | 6.6 | T |
| 6 | 0.55 | | | | | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| 8 | 0.5 | | | | | 1.25 | 1.4 | 2.2 | 3.2 | 5 |
| 10 | 0.45 | | | | | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| 13 | 0.38 | | | | | 0.82 | 1.2 | 1.75 | 2.6 | 3.9 |
| 16 | 0.75 | | | | | 1.1 | 1.6 | 2.3 | 3.6 | |
| 20 | 0.9 | | | | | 1.4 | 1.9 | 3.3 | | |
| 25 | | | | | | 1.2 | 1.6 | 2.7 | | |
| 32 | | | | | | 1 | 1.5 | 2.5 | | |
| 40 | | | | | | | 1.4 | 2.1 | | |
| DS201 (2019) M | B,C,K | 15 | 4 | 0.43 | 0.75 | 1.3 | 2.1 | 3.9 | 6.6 | T |
| | | | 6 | 0.55 | | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 |
| | | | 10 | 0.45 | | 1 | 1.3 | 1.9 | 2.8 | 4.2 |
| | | | 13 | 0.35 | | 0.9 | 1.2 | 1.7 | 2.6 | 3.8 |
| | | | 16 | 0.75 | | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | 0.9 | | 1.4 | 1.9 | 3.3 | | |
| | | | 25 | | | 1.2 | 1.6 | 2.7 | | |
| | | | 32 | | | 1 | 1.5 | 2.5 | | |
| | | | 40 | | | | 1.4 | 2.1 | | |

RCDs technical details

Coordination tables: selectivity DS201

S800B (Char D) - DS201 (2019) @ 230/240V

| | | Supply side | | S800B | | | | | | |
|----------------|-------|-------------|-------|-------|------|-----|-----|-----|-----|-----|
| | | Version | | D | | | | | | |
| Load side | Char | Icu [kA] | 16 | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 1.3 | 3.2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 4.8 | T | T | T | T | T | T |
| | | | 2 | 4.1 | T | T | T | T | T | T |
| | | | 4 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 8 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | 1.1 | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 | 9.6 |
| | | | 16 | 0.9 | 1.4 | 1.9 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | 1.3 | 1.8 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | 1.7 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | 1.7 | 2.7 | 4 | 5 |
| DS201 (2019) M | B,C,K | 15 | 4 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 | 9.5 |
| | | | 16 | | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | 1.7 | 2.7 | 4 | 5 |

RCDs technical details

Coordination tables: selectivity DS201

S800B (Char K) - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800B | | | | | | |
|----------------|-------|-------------|-------|-------|------|-----|-----|-----|-----|-----|
| | | Version | | K | | | | | | |
| | | Icu [kA] | 16 | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| | | | 6 | 1.3 | 3.2 | 3.2 | 3.9 | T | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 16 | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) | B,C,K | 10 | 1 | 4.8 | T | T | T | T | T | T |
| | | | 2 | 4.1 | T | T | T | T | T | T |
| | | | 4 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 8 | 1.25 | 1.8 | 2.9 | 3.6 | 7 | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | 1.1 | 1.55 | 2.2 | 2.8 | 5.9 | 7.2 | 9.6 |
| | | | 16 | 0.9 | 1.4 | 1.9 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | 1.3 | 1.8 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | 1.7 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS201 (2019) M | B,C,K | 15 | 4 | 1.6 | 3 | 5.4 | 7.6 | T | T | T |
| | | | 6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 10 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | 1.55 | 2.1 | 2.8 | 5.6 | 7.1 | 9.5 |
| | | | 16 | | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| | | | 40 | | | | 1.7 | 2.7 | 4 | 5 |

RCDs technical details

Coordination tables: selectivity DS201

S800U (Char K) - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S800U | | | | | | | | |
|----------------|-------|-------------|-------|-------|------|------|------|-----|-----|------|-----|-----|
| | | Version | | K | | | | | | | | |
| | | Icu [kA] | 50 | | | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| | | | 6 | 0.34 | 0.41 | 0.57 | 1.1 | 1.5 | 2 | 2.5 | 3.6 | T |
| | | | 10 | 0.23 | 0.3 | 0.45 | 1 | 1.3 | 1.6 | 1.9 | 2.8 | T |
| | | | 16 | | 0.21 | 0.35 | 0.75 | 1.1 | 1.3 | 1.6 | 2.3 | T |
| | | | 20 | | | 0.22 | 0.6 | 0.9 | 1.1 | 1.4 | 1.9 | 5.4 |
| | | | 25 | | | | | | 1 | 1.2 | 1.6 | 4.5 |
| | | | 32 | | | | | | | 1 | 1.5 | 4.2 |
| DS201 (2019) | B,C,K | 10 | 1 | 0.55 | 0.6 | 1.4 | 3.4 | 7.2 | 8 | T | T | T |
| | | | 2 | 0.44 | 0.55 | 1.2 | 3 | 6.6 | 7 | T | T | T |
| | | | 4 | 0.38 | 0.43 | 0.75 | 1.3 | 2.1 | 3 | 3.9 | 6.6 | T |
| | | | 6 | 0.34 | 0.38 | 0.56 | 1.1 | 1.5 | 2 | 2.5 | 3.6 | T |
| | | | 8 | 0.23 | 0.32 | 0.5 | 1.25 | 1.4 | 1.8 | 2.2 | 3.2 | T |
| | | | 10 | 0.2 | 0.28 | 0.45 | 1 | 1.3 | 1.6 | 1.9 | 2.8 | 8.6 |
| | | | 13 | | 0.22 | 0.38 | 0.83 | 1.2 | 1.4 | 1.75 | 2.6 | 7.2 |
| | | | 16 | | 0.19 | 0.35 | 0.75 | 1.1 | 1.3 | 1.6 | 2.3 | 6.3 |
| | | | 20 | | | 0.28 | 0.58 | 0.9 | 1.1 | 1.4 | 1.9 | 5.4 |
| | | | 25 | | | | | | 1 | 1.2 | 1.6 | 4.5 |
| | | | 32 | | | | | | | 1.5 | 1.5 | 4.2 |
| DS201 (2019) M | B,C,K | 15 | 40 | | | | | | | 1.4 | 1.4 | 4 |
| | | | 4 | 0.38 | 0.43 | 0.75 | 1.3 | 2.1 | 3 | 3.9 | 6.6 | T |
| | | | 6 | 0.34 | 0.38 | 0.55 | 1.1 | 1.5 | 2 | 2.5 | 3.6 | T |
| | | | 10 | 0.2 | 0.28 | 0.45 | 1 | 1.3 | 1.6 | 1.9 | 2.8 | 8.6 |
| | | | 13 | | | 0.35 | 0.9 | 1.2 | 1.4 | 1.7 | 2.6 | 7.1 |
| | | | 16 | | 0.19 | 0.34 | 0.75 | 1.1 | 1.3 | 1.6 | 2.3 | 6.3 |
| | | | 20 | | | 0.29 | 0.57 | 0.9 | 1.1 | 1.4 | 1.9 | 5.4 |
| | | | 25 | | | | 0.53 | 0.6 | 0.9 | 1.2 | 1.6 | 4.5 |
| | | | 32 | | | | | 0.5 | 0.7 | 1 | 1.5 | 4.2 |
| | | | 40 | | | | | 0.3 | 0.5 | 0.8 | 1.4 | 4 |

RCDs technical details

Coordination tables: selectivity DS201

S700 - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S700 | |
|----------------|-------|-------------|-------|------------------------|-----|
| | | Version | | Eselective; Kselective | |
| | | Icu [kA] | 25 | | |
| DS201 (2019) L | C | 6 | In[A] | 80 | 100 |
| | | | 6 | T | T |
| | | | 10 | T | T |
| | | | 16 | T | T |
| | | | 20 | T | T |
| | | | 25 | T | T |
| | | | 32 | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | T | T |
| | | | 2 | T | T |
| | | | 4 | T | T |
| | | | 6 | T | T |
| | | | 8 | T | T |
| | | | 10 | T | T |
| | | | 13 | T | T |
| | | | 16 | T | T |
| | | | 20 | T | T |
| | | | 25 | T | T |
| | | | 32 | T | T |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T |
| | | | 6 | T | T |
| | | | 10 | T | T |
| | | | 13 | T | T |
| | | | 16 | T | T |
| | | | 20 | T | T |
| | | | 25 | T | T |
| | | | 32 | T | T |
| | | | 40 | T | T |

RCDs technical details

Coordination tables: selectivity DS201

S750 DR - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S750 DR | | | | | | |
|----------------|-------|-------------|------------------------|---------|----|----|----|----|----|----|
| | | Version | Eselective; Kselective | | | | | | | |
| | | Icu [kA] | 25 | | | | | | | |
| DS201 (2019) L | C | 6 | In[A] | 16 | 20 | 25 | 35 | 40 | 50 | 63 |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 16 | | | T | T | T | T | T |
| | | | 20 | | | | T | T | T | T |
| | | | 25 | | | | | T | T | T |
| | | | 32 | | | | | | T | T |
| | | | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T |
| | | | 2 | T | T | T | T | T | T | T |
| | | | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 8 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 13 | | T | T | T | T | T | T |
| | | | 16 | | | T | T | T | T | T |
| | | | 20 | | | | T | T | T | T |
| | | | 25 | | | | | T | T | T |
| | | | 32 | | | | | | T | T |
| | | | 40 | | | | | | | T |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T | T | T | T | T | T |
| | | | 6 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 13 | | T | T | T | T | T | T |
| | | | 16 | | | T | T | T | T | T |
| | | | 20 | | | | T | T | T | T |
| | | | 25 | | | | | T | T | T |
| | | | 32 | | | | | | T | T |
| | | | 40 | | | | | | | T |

RCDs technical details

Coordination tables: selectivity DS201

S750 - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | S750 | | | | | | | |
|----------------|-------|-------------|------------------------|------|----|----|----|----|----|----|--|
| | | Version | Eselective; Kselective | | | | | | | | |
| | | Icu [kA] | 25 | | | | | | | | |
| | | | In[A] | 16 | 20 | 25 | 35 | 40 | 50 | 63 | |
| DS201 (2019) L | C | 6 | 6 | T | T | T | T | T | T | T | |
| | | | 10 | T | T | T | T | T | T | T | |
| | | | 16 | | | T | T | T | T | T | |
| | | | 20 | | | | T | T | T | T | |
| | | | 25 | | | | | T | T | T | |
| | | | 32 | | | | | | T | T | |
| | | | 40 | | | | | | | | |
| DS201 (2019) | B,C,K | 10 | 1 | T | T | T | T | T | T | T | |
| | | | 2 | T | T | T | T | T | T | T | |
| | | | 4 | T | T | T | T | T | T | T | |
| | | | 6 | T | T | T | T | T | T | T | |
| | | | 8 | T | T | T | T | T | T | T | |
| | | | 10 | T | T | T | T | T | T | T | |
| | | | 13 | | T | T | T | T | T | T | |
| | | | 16 | | | T | T | T | T | T | |
| | | | 20 | | | | T | T | T | T | |
| | | | 25 | | | | | T | T | T | |
| | | | 32 | | | | | | T | T | |
| | | | 40 | | | | | | | T | |
| DS201 (2019) M | B,C,K | 15 | 4 | T | T | T | T | T | T | T | |
| | | | 6 | T | T | T | T | T | T | T | |
| | | | 10 | T | T | T | T | T | T | T | |
| | | | 13 | | T | T | T | T | T | T | |
| | | | 16 | | | T | T | T | T | T | |
| | | | 20 | | | | T | T | T | T | |
| | | | 25 | | | | | T | T | T | |
| | | | 32 | | | | | | T | T | |
| | | | 40 | | | | | | | T | |

RCDs technical details

Coordination tables: selectivity DS201

Fuses - DS201 (2019) @ 230/240V

| Load side | Char | Supply side | | Fuses gG | | | | | | | |
|----------------|-------|-------------|-------|----------|-----|-----|-----|-----|-----|-----|-----|
| | | Icu [kA] | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS201 (2019) L | C | 6 | 6 | 1 | 1.5 | 4 | 4.5 | T | T | T | T |
| | | | 10 | | 1.2 | 3.5 | 4 | T | T | T | T |
| | | | 16 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 20 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 25 | | 1 | 2 | 3 | 4.5 | T | T | T |
| | | | 32 | | 1 | 2 | 3 | 4.5 | 5 | T | T |
| DS201 (2019) | B,C,K | 10 | 1 | 2.8 | 5.3 | T | T | T | T | T | T |
| | | | 2 | 2 | 4 | 5.8 | T | T | T | T | T |
| | | | 4 | 1.4 | 2.1 | 5.1 | 6.2 | | T | T | T |
| | | | 6 | 1 | 1.5 | 4 | 4.5 | 7 | T | T | T |
| | | | 8 | | 1.2 | 3.5 | 4 | 6 | T | T | T |
| | | | 10 | | 1.2 | 3.5 | 4 | 6 | T | T | T |
| | | | 13 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 16 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 20 | | 1 | 3 | 3.5 | 5 | 8 | T | T |
| | | | 25 | | 1 | 2 | 3 | 4.5 | 6.5 | T | T |
| | | | 32 | | 1 | 2 | 3 | 4.5 | 5 | 8 | T |
| | | | 40 | | | | | 3.7 | 4 | 6 | 8.7 |
| DS201 (2019) M | B,C,K | 15 | 4 | 1.1 | 1.6 | 4.2 | T | T | T | T | T |
| | | | 6 | 1 | 1.5 | 4 | 4.5 | 7 | T | T | T |
| | | | 10 | | 1.2 | 3.5 | 4 | 6 | 10 | 10 | T |
| | | | 13 | | 1.2 | 3.5 | 4 | 6 | 10 | 10 | T |
| | | | 16 | | 1 | 3 | 3.5 | 5 | 10 | 10 | T |
| | | | 20 | | 1 | 3 | 3.5 | 5 | 8 | 10 | T |
| | | | 25 | | | 2 | 3 | 4.5 | 6.5 | 10 | T |
| | | | 32 | | | | 3 | 4.5 | 5 | 8 | T |
| | | | 40 | | | | | 3.4 | 3.8 | 5.5 | 8.2 |

RCDs technical details

Coordination tables: selectivity DS203NC

Fuses-DS203NC @ 400V

| Load S. | Char | Icu [kA] | Supply S. | Fuse gL/gG | | | | | | | |
|-----------|-------|----------|-----------|------------|-----|-----|-----|-----|-----|-----|-----|
| | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS203NC L | C | 6 | 6 | 1 | 1.5 | 4 | 4.5 | T | T | T | T |
| | | | 8 | | 1.2 | 3.5 | 4 | T | T | T | T |
| | | | 10 | | 1.2 | 3.5 | 4 | T | T | T | T |
| | | | 13 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 16 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 20 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 25 | | 1 | 2 | 3 | 4.5 | T | T | T |
| | | | 32 | | 1 | 2 | 3 | 4.5 | 5 | T | T |
| DS203NC | B,C,K | 10 | 6 | 1 | 1.5 | 4 | 4.5 | 7 | T | T | T |
| | | | 8 | | 1.2 | 3.5 | 4 | 6 | T | T | T |
| | | | 10 | | 1.2 | 3.5 | 4 | 6 | T | T | T |
| | | | 13 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 16 | | 1 | 3 | 3.5 | 5 | T | T | T |
| | | | 20 | | 1 | 3 | 3.5 | 5 | 8 | T | T |
| | | | 25 | | 1 | 2 | 3 | 4.5 | 6.5 | T | T |
| | | | 32 | | 1 | 2 | 3 | 4.5 | 5 | 8 | T |

MCCB @ 415V - DS203NC @ 400V

| | | | Supply S. | XT2 | XT1-XT2 | | | | | | XT1-XT2-XT3 | | | | | | XT3 | |
|-----------|---------|----------|---------------|------------------|---------|----|----|----|-----|-----|-------------|-----|-----|-----|-----|-----|-----|---|
| | | | Version | B,C,N, S, H, L,V | | | | | | | | | | | | | | |
| Load S. | Char | Icu [kA] | Release In[A] | TM | | | | | | | | | | | | | | |
| | | | 12.5 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 250 | | |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T |
| | | | 13 | | | | | 3 | 4,5 | 5 | T | T | T | T | T | T | T | T |
| | | | 16 | | | | | 3 | 4,5 | 5 | T | T | T | T | T | T | T | T |
| | | | 20 | | | | | | 3 | 5 | T | T | T | T | T | T | T | T |
| | | | 25 | | | | | | | 5 | T | T | T | T | T | T | T | T |
| | | | 32 | | | | | | | | T | T | T | T | T | T | T | T |
| DS203NC | B, C, K | 10 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | 8,5 | T | T | T | T | T | T |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | 8,5 | T | T | T | T | T | T |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | 7,5 | T | T | T | T | T | T |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | 7,5 | T | T | T | T | T | T |
| | | | 20 | | | | | | 3 | 5 | 6 | 6 | T | T | T | T | T | T |
| | | | 25 | | | | | | | 5 | 6 | 6 | T | T | T | T | T | T |
| | | | 32 | | | | | | | | 6 | 6 | 7,5 | T | T | T | T | T |

RCDs technical details

Coordination tables: selectivity DS203NC

| Load S. | Char | Icu [kA] | Supply S. XT4 | | | | | | | | | | | | | |
|-----------|---------|----------|-----------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | Version B,C,N,S,H,L,V | | | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | |
| | | | In[A] | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 225 | 250 |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | | | 8 | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T |
| | | | 10 | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T |
| | | | 13 | | | 3 | 4,5 | 5 | T | T | T | T | T | T | T | T |
| | | | 16 | | | 3 | 4,5 | 5 | T | T | T | T | T | T | T | T |
| | | | 20 | | | | 3 | 5 | T | T | T | T | T | T | T | T |
| | | | 25 | | | | | 5 | T | T | T | T | T | T | T | T |
| | | | 32 | | | | | | T | T | T | T | T | T | T | T |
| DS203NC | B, C, K | 10 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | T | T | T | T |
| | | | 8 | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | 8,5 | T | T | T | T | T | T |
| | | | 10 | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | 8,5 | T | T | T | T | T | T |
| | | | 13 | | | 3 | 4,5 | 5 | 7,5 | 7,5 | T | T | T | T | T | T |
| | | | 16 | | | 3 | 4,5 | 5 | 7,5 | 7,5 | T | T | T | T | T | T |
| | | | 20 | | | | 3 | 5 | 6 | 6 | T | T | T | T | T | T |
| | | | 25 | | | | | 5 | 6 | 6 | T | T | T | T | T | T |
| | | | 32 | | | | | | 6 | 6 | 7,5 | T | T | T | T | T |

| Load S. | Char | Icu [kA] | Supply S. XT2 | | | | | | | | | |
|-----------|---------|----------|-----------------------|----|----|-----|-----|----|----|----------|-----|--|
| | | | Version B,C,N,S,H,L,V | | | | | | | | | |
| | | | Release | EL | | | | | | | | |
| | | | In[A] | 25 | 63 | 100 | 160 | 40 | 63 | 100, 160 | 250 | |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T | T | |
| | | | 8 | T | T | T | T | T | T | T | T | |
| | | | 10 | T | T | T | T | T | T | T | T | |
| | | | 13 | T | T | T | T | T | T | T | T | |
| | | | 16 | | T | T | T | T | T | T | T | |
| | | | 20 | | T | T | T | T | T | T | T | |
| | | | 25 | | T | T | T | | T | T | T | |
| | | | 32 | | T | T | T | | T | T | T | |
| DS203NC | B, C, K | 10 | 6 | T | T | T | T | T | T | T | T | |
| | | | 8 | T | T | T | T | T | T | T | T | |
| | | | 10 | T | T | T | T | T | T | T | T | |
| | | | 13 | T | T | T | T | T | T | T | T | |
| | | | 16 | | T | T | T | T | T | T | T | |
| | | | 20 | | T | T | T | T | T | T | T | |
| | | | 25 | | T | T | T | | T | T | T | |
| | | | 32 | | T | T | T | | T | T | T | |

RCDs technical details

Coordination tables: selectivity DS203NC

MCCB @ 415V -DS203NC @ 400V

| | | | | | | | | | | | | | | | |
|-----------|-------|----------|-----------|-------|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
| | | | Supply S. | T1 | | | | | | | | | | | |
| | | | Version | B,C,N | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | |
| | | | Iu[A] | 160 | | | | | | | | | | | |
| Load S. | Char | Icu [kA] | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | T | T | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | T | T | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | T | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | T | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | T | T | T | T | |
| | | | 25 | | | | | | | 5 | T | T | T | T | |
| | | | 32 | | | | | | | T | T | T | T | T | |
| DS203NC | B,C,K | 10 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | T | T | T | T | T | |
| | | | 8 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 10 | | | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | |
| | | | 13 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 16 | | | | | 3 | 4,5 | 5 | 7,5 | T | T | T | |
| | | | 20 | | | | | | 3 | 5 | 6 | T | T | T | |
| | | | 25 | | | | | | | 5 | 6 | T | T | T | |
| | | | 32 | | | | | | | | 6 | 7,5 | T | T | |

| | | | Supply S. | T2 | | | | | | | | | | | | | | | |
|-----------|-------|----------|-----------|---------|----|----|----|----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|--|
| | | | Version | N,S,H,L | | | | | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | EL | | | |
| | | | Iu[A] | 160 | | | | | | | | | | | | 160 | | | |
| Load S. | Char | Icu [kA] | In[A] | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 25 | 63 | 100 | 160 | |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 8 | | 3 | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T | |
| | | | 10 | | 3 | 3 | 3 | 3 | 4,5 | T | T | T | T | T | T | T | T | T | |
| | | | 13 | | | | 3 | 3 | 4,5 | 5 | T | T | T | T | | T | T | T | |
| | | | 16 | | | | 3 | 3 | 4,5 | 5 | T | T | T | T | | T | T | T | |
| | | | 20 | | | | 3 | | 3 | 5 | T | T | T | T | | T | T | T | |
| | | | 25 | | | | | | 3 | 5 | T | T | T | T | | T | T | T | |
| | | | 32 | | | | | | 3 | | T | T | T | T | | T | T | T | |
| DS203NC | B,C,K | 10 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | | | 8 | | 3 | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | T | |
| | | | 10 | | 3 | 3 | 3 | 3 | 4,5 | 7,5 | 8,5 | T | T | T | T | T | T | T | |
| | | | 13 | | | | 3 | 3 | 4,5 | 5 | 7,5 | T | T | T | | T | T | T | |
| | | | 16 | | | | 3 | 3 | 4,5 | 5 | 7,5 | T | T | T | | T | T | T | |
| | | | 20 | | | | 3 | | 3 | 5 | 6 | T | T | T | | T | T | T | |
| | | | 25 | | | | | | 3 | 5 | T | T | T | T | | T | T | T | |
| | | | 32 | | | | | | 3 | | 6 | 7,5 | T | T | | T | T | T | |

RCDs technical details

Coordination tables: selectivity DS203NC

| | | | Supply S. | T3 | | | | | | |
|-----------|-------|----------|-----------|-------|-----|-----|-----|-----|-----|-----|
| | | | Version | N,S | | | | | | |
| | | | Release | TM, M | | | | | | |
| | | | Iu[A] | 250 | | | | | | |
| Load S. | Char | Icu [kA] | In[A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DS203NC L | C | 6 | 6 | T | T | T | T | T | T | T |
| | | | 8 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 13 | 5 | T | T | T | T | T | T |
| | | | 16 | 5 | T | T | T | T | T | T |
| | | | 20 | 5 | T | T | T | T | T | T |
| | | | 25 | 5 | T | T | T | T | T | T |
| | | | 32 | | T | T | T | T | T | T |
| DS203NC L | B,C,K | 10 | 6 | T | T | T | T | T | T | T |
| | | | 8 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 10 | 7,5 | 8,5 | T | T | T | T | T |
| | | | 13 | 5 | 7,5 | T | T | T | T | T |
| | | | 16 | 5 | 7,5 | T | T | T | T | T |
| | | | 20 | 5 | 6 | T | T | T | T | T |
| | | | 25 | 5 | 6 | T | T | T | T | T |
| | | | 32 | | 6 | 7,5 | T | T | T | T |

S800-DS203NC @ 400V

| | | | Supply S. | S800N-S | | | | | | |
|-----------|-------|----|-----------|---------|-----|-----|-----|-----|--|--|
| | | | Char | B | | | | | | |
| | | | Icu [kA] | 36-50 | | | | | | |
| Load S. | | | In[A] | 50 | 63 | 80 | 100 | 125 | | |
| DS203NC L | C | 6 | 6 | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 | | |
| | | | 8 | 0.5 | 1.1 | 1.4 | 2 | 3 | | |
| | | | 10 | 0.5 | 1.1 | 1.4 | 2 | 3 | | |
| | | | 13 | | 0.8 | 1.2 | 1.7 | 2.5 | | |
| | | | 16 | | 0.8 | 1.2 | 1.7 | 2.5 | | |
| | | | 20 | | | 1 | 1.5 | 2.1 | | |
| | | | 25 | | | | 1.3 | 1.8 | | |
| | | | 32 | | | | 1.1 | 1.7 | | |
| DS203NC | B,C,K | 10 | 6 | 0.6 | 1.2 | 1.6 | 2.6 | 3.8 | | |
| | | | 8 | 0.5 | 1.1 | 1.4 | 2 | 3 | | |
| | | | 10 | 0.5 | 1.1 | 1.4 | 2 | 3 | | |
| | | | 13 | | 0.8 | 1.2 | 1.7 | 2.5 | | |
| | | | 16 | | 0.8 | 1.2 | 1.7 | 2.5 | | |
| | | | 20 | | | 1 | 1.5 | 2.1 | | |
| | | | 25 | | | | 1.3 | 1.8 | | |
| | | | 32 | | | | 1.1 | 1.7 | | |

RCDs technical details

Coordination tables: selectivity DS203NC

| Load S. | Char | Supply S. | S800N-S | | | | | | | |
|-----------|-------|-----------|---------|------|------|-----|-----|-----|-----|--|
| | | Icu [kA] | C | | | | | | | |
| | | | 36-50 | | | | | | | |
| | | | In[A] | 40 | 50 | 63 | 80 | 100 | 125 | |
| DS203NC L | C | 6 | 6 | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 | |
| | | | 8 | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 10 | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 13 | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 16 | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | 1 | 1.5 | 2.5 | |
| DS203NC | B,C,K | 6 | 6 | 0.55 | 1.1 | 1.5 | 2.5 | 3.6 | 5.5 | |
| | | | 8 | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 10 | 0.45 | 1 | 1.3 | 1.9 | 2.8 | 4.2 | |
| | | | 13 | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 16 | | 0.75 | 1.1 | 1.6 | 2.3 | 3.6 | |
| | | | 20 | | | 0.9 | 1.4 | 1.9 | 3.3 | |
| | | | 25 | | | | 1.2 | 1.6 | 2.7 | |
| | | | 32 | | | | 1 | 1.5 | 2.5 | |

| | Char | Supply S. | S800 N-S | | | | | | | | |
|-----------|-------|-----------|----------|-----|-----|------|-----|-----|-----|-----|-----|
| | | Icu [kA] | D | | | | | | | | |
| | | | 36-50 | | | | | | | | |
| Load S. | | | In[A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DS203NC L | C | 6 | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | T | T | T |
| | | | 8 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | T | T | T |
| | | | 13 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | T | T |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | T |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | T |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |
| DS203NC | B,C,K | 10 | 6 | 0.6 | 1.3 | 2 | 3.2 | 3.9 | 8 | T | T |
| | | | 8 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 10 | 0.5 | 1.2 | 1.65 | 2.6 | 3.1 | 6.2 | 8.6 | T |
| | | | 13 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 16 | | 0.9 | 1.4 | 1.8 | 2.6 | 5 | 6.3 | 8.8 |
| | | | 20 | | | 1.3 | 1.6 | 2.2 | 4.2 | 5.4 | 7.6 |
| | | | 25 | | | | 1.5 | 1.9 | 3.5 | 4.5 | 6.6 |
| | | | 32 | | | | | 1.8 | 2.8 | 4.2 | 5.5 |

RCDs technical details

Coordination tables: selectivity DSE201

Fuses- DSE201 @ 230/240 V

| | | | Supply side | Fuse 25gG | Fuse 40gG | Fuse 50gG | Fuse 63gG | Fuse 80gG | Fuse 100gG | Fuse 125gG | Fuse 160gG | Fuse 200gG |
|-----------|-------|----------|-------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
| Load side | Char. | Icu [kA] | In [A] | 25 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 |
| DSE201 | B,C | 6 | up to 20 | 1 | side | 3,5 | T | T | T | T | T | T |
| | | | 25-32 | | 2 | 3 | 4,5 | T | T | T | T | T |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | T1 | | | | | | T2 | | | | | |
|-----------|-------|----------|-------------|----|----|----|-----|-----|-----|----|----|----|-----|-----|-----|
| Load side | Char. | Icu [kA] | In [A] | 50 | 63 | 80 | 100 | 125 | 160 | 50 | 63 | 80 | 100 | 125 | 160 |
| DSE201 | B,C | 6 | up to 20 | 3 | 5 | T | T | T | T | 3 | 5 | T | T | T | T |
| | | | 25-32 | | T | T | T | T | T | | T | T | T | T | T |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | T3 | | | | | | | | T4 | | | | | |
|-----------|-------|----------|-------------|----|----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|
| Load side | Char. | Icu [kA] | In [A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DSE201 | B,C | 6 | up to 20 | 5 | T | T | T | T | T | T | 5 | T | T | T | T | T | T |
| | | | 25-32 | | T | T | T | T | T | T | | T | T | T | T | T | T |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | XT1 | | | | | | XT2 | | | | | |
|-----------|-------|----------|-------------|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|-----|
| Load side | Char. | Icu [kA] | In [A] | 50 | 63 | 80 | 100 | 125 | 160 | 50 | 63 | 80 | 100 | 125 | 160 |
| DSE201 | B,C | 6 | up to 20 | 3 | 5 | T | T | T | T | 3 | 5 | T | T | T | T |
| | | | 25-32 | | T | T | T | T | T | | T | T | T | T | T |

MCCB @ 415 V - DSE201 @ 230/240 V

| | | | Supply side | XT3 | | | | | | | | XT4 | | | | | |
|-----------|-------|----------|-------------|-----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|
| Load side | Char. | Icu [kA] | In [A] | 63 | 80 | 100 | 125 | 160 | 200 | 250 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DSE201 | B,C | 6 | up to 20 | 5 | T | T | T | T | T | T | 5 | T | T | T | T | T | T |
| | | | 25-32 | | T | T | T | T | T | T | | T | T | T | T | T | T |

Coordination tables: selectivity DSE201 M

| | | Supply side | | | | Fuse gG | | | | | |
|-----------|-------|-------------|--------|-----|-----|---------|-----|-----|-----|-----|-----|
| Load side | Char. | Icu [kA] | In [A] | 16 | 20 | 25 | 35 | 50 | 63 | 80 | 100 |
| DSE201M | B,C | 15 | 6 | 0.2 | 0.5 | 0.8 | 1.7 | 3.1 | 7 | 10 | 10 |
| | | | 10 | 0.2 | 0.4 | 0.7 | 1.4 | 2.3 | 3.4 | 4.8 | 7.5 |
| | | | 16 | | | | 1.3 | 2 | 2.9 | 4.2 | 6 |
| | | | 20 | | | | | 1.9 | 2.7 | 3.8 | 5.6 |
| | | | 25 | | | | | 1.9 | 2.6 | 3.6 | 5.4 |
| | | | 32 | | | | | | 2.4 | 3.2 | 4.2 |
| | | | 40 | | | | | | | 3.2 | 4.2 |
| | | 10 | 50 | | | | | | | | 3.5 |

| | | | | S700 | | | | | | | | |
|-----------|-------|----------|-------------|------|----|----|----|----|----|----|----|-----|
| | | | Supply side | 25 | | | | | | | | |
| | | | | E/K | | | | | | | | |
| Load side | Char. | Icu [kA] | In[A] | 16 | 20 | 25 | 35 | 40 | 50 | 63 | 80 | 100 |
| DSE201M | B,C | 15 | 6 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 |
| | | | 10 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 |
| | | | 16 | | | 15 | 15 | 15 | 15 | 15 | 10 | 10 |
| | | | 20 | | | | 15 | 15 | 15 | 15 | 10 | 10 |
| | | | 25 | | | | | 15 | 15 | 15 | 10 | 10 |
| | | | 32 | | | | | | 15 | 15 | 10 | 10 |
| | | | 40 | | | | | | | 15 | 10 | 10 |
| | | | | 10 | 50 | | | | | | | 8 |

[illegible]

RCDs technical details

Coordination tables: selectivity DSE201 M

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | | | | | | | | XT3 | | | | | |
|-----------|-------|----------|-------------|------|-----|-----|------|-----|-----|-----|------------------|------|-----|-----|-----|-----|
| | | | Version | | | | | | | | N,S,H,L,V | | | | | |
| | | | Release | | | | | | | | TM | | | | | |
| | | | Iu [kA] | | | | | | | | 160 | | | | | |
| | | | Icu [A] | | | | | | | | 36,50,70,120,150 | | | | | |
| Load side | Char. | Icu [kA] | Icn [A] | 12.5 | 63 | 80 | 100 | 125 | 160 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| DSE201M | B,C | 15 | 6 | 3 | 10 | T | T | T | T | 10 | T | T | T | T | T | T |
| | | | 10 | | 7.5 | 7.5 | T | T | T | 7.5 | 7.5 | T | T | T | T | T |
| | | | 16 | | 5 | 7.5 | 12.5 | T | T | 5 | 7.5 | 12.5 | T | T | T | T |
| | | | 20 | | 5 | 6 | 10 | T | T | 5 | 6 | 10 | T | T | T | T |
| | | | 25 | | 5 | 6 | 10 | 10 | T | 5 | 6 | 10 | 10 | T | T | T |
| | | | 32 | | 3 | 6 | 7.5 | 10 | T | 3 | 6 | 7.5 | 10 | T | T | T |
| | | | 40 | | | | 7.5 | 10 | T | | | 7.5 | 10 | T | T | T |
| | | 10 | 50 | | | | | T | T | | | | 10 | 10 | T | T |

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | | | | | | | | | | | | | |
|-----------|-------|----------|-------------|----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | Version | | | | | | | | | | | | | |
| | | | Release | | | | | | | | | | | | | |
| | | | Iu [kA] | | | | | | | | | | | | | |
| | | | Icu [A] | | | | | | | | | | | | | |
| Load side | Char. | Icu [kA] | Icn [A] | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 225 | 250 |
| DSE201M | B,C | 15 | 6 | 6 | 6 | 6 | 6 | 7.5 | 10 | T | T | T | T | T | T | T |
| | | | 10 | 3 | 3 | 4.5 | 5 | 6.5 | 7.5 | 9 | T | T | T | T | T | T |
| | | | 16 | | 3 | 4.5 | 5 | 6.5 | 5 | 8 | T | T | T | T | T | T |
| | | | 20 | | | | 5 | 5 | 5 | 7.5 | T | T | T | T | T | T |
| | | | 25 | | | | | 5 | 5 | 7.5 | T | T | T | T | T | T |
| | | | 32 | | | | | | 5 | 6 | T | T | T | T | T | T |
| | | | 40 | | | | | | | 5 | T | T | T | T | T | T |
| | | 10 | 50 | | | | | | | 5 | T | T | T | T | T | T |

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | | | | | | | | XT4 | | | | | |
|-----------|-------|----------|-------------|----|----|----|-----|-----|----|----|------------------|-----|-----|--|--|--|
| | | | Version | | | | | | | | N,S,H,L,V | | | | | |
| | | | Release | | | | | | | | EL | | | | | |
| | | | Iu [kA] | | | | | | | | 160 | | | | | |
| | | | Icu [A] | | | | | | | | 36,50,70,120,150 | | | | | |
| Load side | Char. | Icu [kA] | Icn [A] | 10 | 25 | 63 | 100 | 160 | 40 | 63 | 100 | 160 | 250 | | | |
| DSE201M | B,C | 15 | 6 | T | T | T | T | T | T | T | T | T | T | | | |
| | | | 10 | | T | T | T | T | T | T | T | T | T | | | |
| | | | 16 | | | T | T | T | T | T | T | T | T | | | |
| | | | 20 | | | T | T | T | T | T | T | T | T | | | |
| | | | 25 | | | T | T | T | | T | T | T | T | | | |
| | | | 32 | | | T | T | T | | T | T | T | T | | | |
| | | | 40 | | | | T | T | | | T | T | T | | | |
| | | 10 | 50 | | | | T | T | | | T | T | T | | | |

RCDs technical details

Coordination tables: selectivity DSE201 M

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | T2 | | T1-T2 | | | | | T1-T2-T3 | | | | | T3 | | |
|-----------|-------|----------|-------------|------------------|-----|----------------|-----|----------------|-----|----------------|-------------------|------------------|----------------|-----|------|-----|-----|--|
| | | | Version | B,C,N, S, H, L | | | | | | | B,C,N, S, H, L, V | | | | | | | |
| | | | Release | TM | | | | | | | | | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 12.5 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 250 | |
| DSE201M | B,C | 15 | 6 | 5.5 ¹ | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 10.5 | T | T | T | T | T | T | |
| | | | 10 | | | 3 ¹ | 3 | 3 | 3 | 4.5 | 7.5 | 8.5 | T | T | T | T | T | |
| | | | 16 | | | | | 3 ¹ | 3 | 4.5 | 5 | 7.5 | 12 | T | T | T | T | |
| | | | 20 | | | | | 3 ¹ | | 3 | 5 | 6 | 10 | T | T | T | T | |
| | | | 25 | | | | | | | 3 ¹ | 5 | 6 | 10 | T | T | T | T | |
| | | | 32 | | | | | | | 3 ¹ | | 6 | 7.5 | 12 | T | T | T | |
| | | | 40 | | | | | | | | | 5.5 ¹ | 7.5 | 12 | T | T | T | |
| | | 10 | 50 | | | | | | | | | 3 ¹ | 5 ² | 7.5 | 10.5 | T | T | |

¹⁾ Value valid only for T2 magnetic only supply side circuit-breaker

²⁾ Value valid only for T2-T3 magnetic only supply side circuit-breaker

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | T4 | | | | | | | | | | T5 | |
|-----------|-------|----------|-------------|---------------|------------------|-----|----------------|----------------|-----|-----|-----|-----|-----|---------|---|
| | | | Version | B,C,N,S,H,L,V | | | | | | | | | | | |
| | | | Release | TM | | | | | | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 20 | 25 | 32 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 320-500 | |
| DSE201M | B,C | 15 | 6 | 7.5 | 7.5 ³ | 7.5 | 7.5 | T | T | T | T | T | T | T | T |
| | | | 10 | 5 | 5 ³ | 5 | 6.5 | 9 | T | T | T | T | T | T | T |
| | | | 16 | | 3 ³ | 5 | 6.5 | 8 | T | T | T | T | T | T | T |
| | | | 20 | | | | 5 | 7.5 | T | T | T | T | T | T | T |
| | | | 25 | | | | 5 | 7.5 | T | T | T | T | T | T | T |
| | | | 32 | | | | 5 ³ | 7.5 | T | T | T | T | T | T | T |
| | | | 40 | | | | | 6.5 | T | T | T | T | T | T | T |
| | | 10 | 50 | | | | | 5 ³ | T | T | T | T | T | T | T |

³⁾ Value valid only for T4 magnetic only supply side circuit-breaker

MCCB @ 415 V - DSE201M @ 230/240 V

| | | | Supply side | T2 | | | | T4 | | T5 |
|-----------|-------|----------|-------------|---------------|----|------|------|---------|---------|---------|
| | | | Version | B,C,N,S,H,L,V | | | | | | |
| | | | Release | EL | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 25 | 63 | 100 | 160 | 100,160 | 250,320 | 320-630 |
| DSE201M | B,C | 15 | 6 | T | T | T | T | T | T | T |
| | | | 10 | T | T | T | T | T | T | T |
| | | | 16 | | T | T | T | T | T | T |
| | | | 20 | | T | T | T | T | T | T |
| | | | 25 | | T | T | T | T | T | T |
| | | | 32 | | T | T | T | T | T | T |
| | | | 40 | | | T | T | T | T | T |
| | | 10 | 50 | | | 10.5 | 10.5 | T | T | T |

RCDs technical details

Coordination tables: selectivity DSE201 M

S800 - DSE201M @230/240 V

| | | | Supply side | S800 S | | | | | | |
|-----------|-------|----------|-------------|--------|-----|-----|-----|-----|-----|---|
| | | | | B | | | | | | |
| | | | | 50 | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 40 | 50 | 63 | 80 | 100 | 125 | |
| DSE201M | B,C | 15 | 6 | 0.4 | 0.5 | 0.7 | 1 | 1.5 | 2.6 | |
| | | | 10 | | 0.4 | 0.6 | 0.7 | 1 | 1.4 | |
| | | | 16 | | | | 0.7 | 0.9 | 1.3 | |
| | | | 20 | | | | | 0.9 | 1.3 | |
| | | | 25 | | | | | 0.9 | 1.3 | |
| | | | 32 | | | | | 0.8 | 1.1 | |
| | | | 40 | | | | | 0.8 | 1.1 | |
| | | | 10 | 50 | | | | | | 1 |

S800 - DSE201M @230/240 V

| | | | Supply side | S800 S | | | | | | | |
|-----------|-------|----------|-------------|--------|-----|-----|-----|-----|-----|-----|-----|
| | | | | C | | | | | | | |
| | | | | 50 | | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201M | B,C | 15 | 6 | | 0.4 | 0.5 | 0.7 | 0.9 | 1.4 | 2.4 | 4.8 |
| | | | 10 | | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.3 | 2 |
| | | | 16 | | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.3 | 1.9 |
| | | | 20 | | | 0.4 | 0.5 | 0.7 | 0.9 | 1.2 | 1.8 |
| | | | 25 | | | 0.4 | 0.5 | 0.7 | 0.9 | 1.2 | 1.8 |
| | | | 32 | | | | 0.5 | 0.6 | 0.8 | 1 | 1.4 |
| | | | 40 | | | | | 0.6 | 0.8 | 1 | 1.4 |
| | | 10 | 50 | | | | | | 0.7 | 0.9 | 1.3 |

S800 - DSE201M @230/240 V

| | | | Supply side | S800 S | | | | | | | |
|-----------|-------|----------|-------------|--------|-----|-----|-----|-----|-----|-----|-----|
| | | | | D | | | | | | | |
| | | | | 50 | | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201M | B,C | 15 | 6 | 0.5 | 1 | 1.2 | 2 | 2.8 | T * | T | T |
| | | | 10 | 0.4 | 0.6 | 0.8 | 1.1 | 1.4 | 2.8 | 3.9 | 7.4 |
| | | | 16 | | 0.6 | 0.8 | 1.1 | 1.4 | 2.5 | 3.3 | 5.6 |
| | | | 20 | | | 0.8 | 1.1 | 1.3 | 2.3 | 3 | 4.7 |
| | | | 25 | | | 0.8 | 1.1 | 1.3 | 2.3 | 3 | 4.7 |
| | | | 32 | | | | 0.9 | 1.1 | 1.9 | 2.4 | 3.7 |
| | | | 40 | | | | | 1.1 | 1.9 | 2.4 | 3.7 |
| | | 10 | 50 | | | | | | 1.5 | 1.9 | 2.3 |

*) 9.9 for C char

RCDs technical details

Coordination tables: selectivity DSE201 M

S800 - DSE201M @230/240 V

| | | | | Supply side | S800 N | | | | | |
|-----------|-------|----------|--------|-------------|--------|-----|-----|-----|-----|---|
| | | | | | B | | | | | |
| | | | | | 36 | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 40 | 50 | 63 | 80 | 100 | 125 | |
| DSE201M | B,C | 15 | 6 | 0.4 | 0.5 | 0.7 | 1 | 1.5 | 2.6 | |
| | | | 10 | | 0.4 | 0.6 | 0.7 | 1 | 1.4 | |
| | | | 16 | | | | 0.7 | 0.9 | 1.3 | |
| | | | 20 | | | | | 0.9 | 1.3 | |
| | | | 25 | | | | | 0.9 | 1.3 | |
| | | | 32 | | | | | 0.8 | 1.1 | |
| | | | 40 | | | | | 0.8 | 1.1 | |
| | | 10 | 50 | | | | | | | 1 |

S800 - DSE201M @230/240 V

| | | | | Supply side | S800 N | | | | | | |
|-----------|-------|----------|--------|-------------|--------|-----|-----|-----|-----|-----|-----|
| | | | | | C | | | | | | |
| | | | | | 36 | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201M | B,C | 15 | 6 | | 0.4 | 0.5 | 0.7 | 0.9 | 1.4 | 2.4 | 4.8 |
| | | | 10 | | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.3 | 2 |
| | | | 16 | | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.3 | 1.9 |
| | | | 20 | | | 0.4 | 0.5 | 0.7 | 0.9 | 1.2 | 1.8 |
| | | | 25 | | | 0.4 | 0.5 | 0.7 | 0.9 | 1.2 | 1.8 |
| | | | 32 | | | | 0.5 | 0.6 | 0.8 | 1 | 1.4 |
| | | | 40 | | | | | 0.6 | 0.8 | 1 | 1.4 |
| | | 10 | 50 | | | | | | 0.7 | 0.9 | 1.3 |

S800 - DSE201M @230/240 V

| | | | | Supply side | S800 N | | | | | | |
|-----------|-------|----------|--------|-------------|--------|-----|-----|-----|-----|-----|-----|
| | | | | | D | | | | | | |
| | | | | | 36 | | | | | | |
| Load side | Char. | Icu [kA] | In [A] | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| DSE201M | B,C | 15 | 6 | 0.5 | 1 | 1.2 | 2 | 2.8 | T | T | T |
| | | | 10 | 0.4 | 0.6 | 0.8 | 1.1 | 1.4 | 2.8 | 3.9 | 7.4 |
| | | | 16 | | 0.6 | 0.8 | 1.1 | 1.4 | 2.5 | 3.3 | 5.6 |
| | | | 20 | | | 0.8 | 1.1 | 1.3 | 2.3 | 3 | 4.7 |
| | | | 25 | | | 0.8 | 1.1 | 1.3 | 2.3 | 3 | 4.7 |
| | | | 32 | | | | 0.9 | 1.1 | 1.9 | 2.4 | 3.7 |
| | | | 40 | | | | | 1.1 | 1.9 | 2.4 | 3.7 |
| | | 10 | 50 | | | | | | 1.5 | 1.9 | 2.3 |

RCDs technical details

Coordination tables: residual current protection selectivity

Selectivity

RCDs raise similar issue to those surrounding the installation of MCBs, and in particular the need to reduce to a minimum the parts of the system out of order in the event of a fault. For RCBOs the problem of selectivity in the case of short-circuit currents may be handled with the same specific criteria as for MCBs.

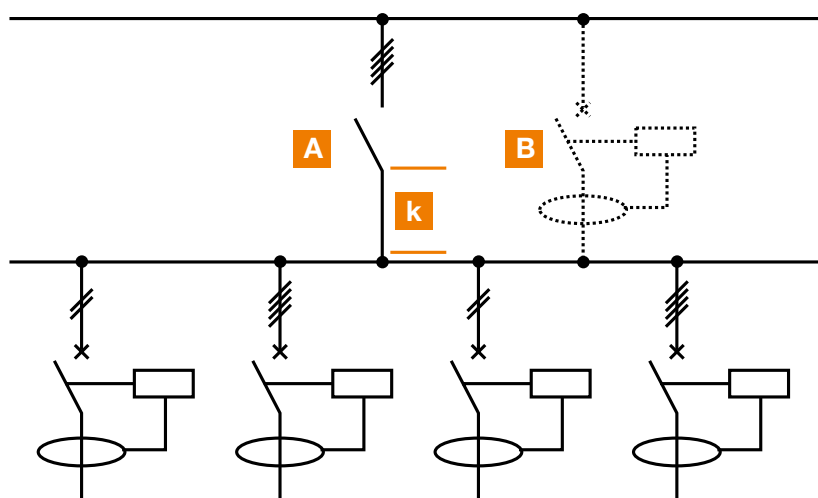
However, for correct residual current protection, the more important aspects are linked to tripping times. Protection against contact voltages is only effective if the maximum times indicated on the safety curve are not exceeded.

If an electrical system has user devices with earth leakage currents which exceed the normal values (e.g.: presence of capacitor input filters inserted between the device phase and earth cables) or if the system consists of many user devices, it is good practice to install various RCDs, on the main branches, with an upstream main residual current or non-residual current device instead of a single main RCD.

Horizontal selectivity

The non-residual current main circuit-breaker provides “horizontal selectivity”, preventing an earth fault at any point on the circuit or small leakage from causing unwanted main circuit-breaker tripping, which would put the entire system out of order.

However, in this way, section k of the circuit between the main circuit-breaker and the RCDs remains without “active” protection. Using a main RCD to protect it would lead to problems with “vertical selectivity”, which require tripping of the various devices to be co-ordinated, so that service continuity and system safety are not compromised. In this case, selectivity may be amperometric (partial) or chronometric (total).



Vertical selectivity

Vertical selectivity may also be established for residual current tripping, bearing in mind that in working back from system peripheral branches to the main electrical panels the risk of unskilled persons coming into contact with dangerous parts is significantly reduced.

RCDs technical details

Coordination tables: residual current protection selectivity

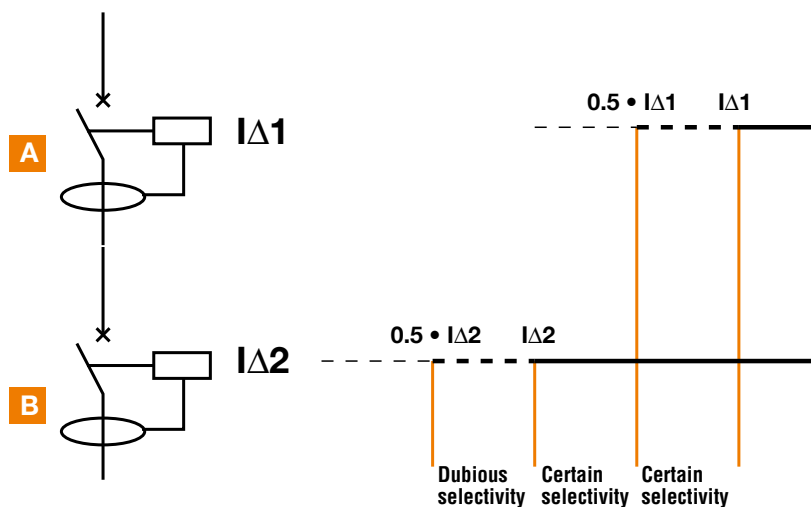
Amperometric (partial) selectivity

Selectivity may be created by placing low-sensitivity RCDs upstream and higher-sensitivity RCDs downstream. An essential condition which must be satisfied in order to achieve selective co-ordination is that the $I\Delta 1$ value of the breaker upstream (main breaker) is more than double the $I\Delta 2$ value of the breaker downstream. The operative rule to obtain an amperometric (partial) selectivity is $I\Delta n$ of the

upstream breaker = $3 \times I\Delta n$ of the downstream breaker (e. g.: F 204, A type, 300 mA upstream; F 202, A type, 100 mA downstream).

In this case, selectivity is partial and only the downstream breaker trips for earth fault currents

$$I\Delta 2 < I\Delta m < 0.5 \cdot I\Delta 1$$



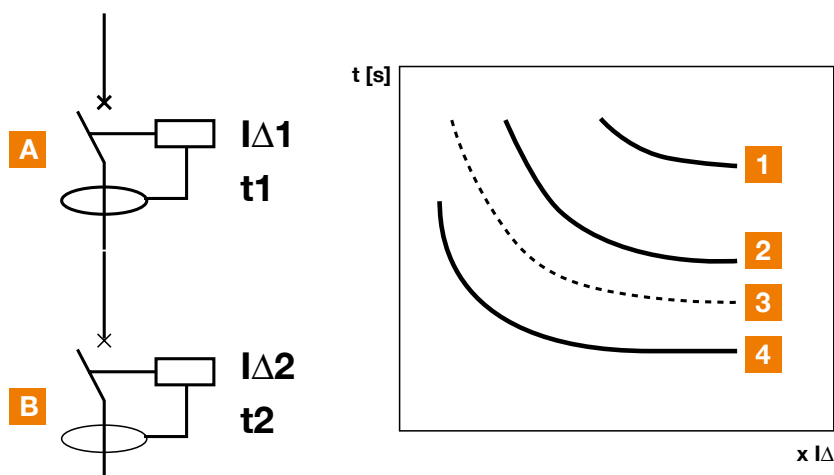
Chronometric (total) selectivity

To achieve total selectivity, delayed or selective RCDs must be installed.

The tripping times of the two devices connected in series must be co-ordinated so that the total interruption time t_2 of the downstream breaker is less than the upstream breaker's no-response limit time t_1 , for any current value. In this way, the downstream breaker completes its opening before the upstream one.

To completely guarantee total selectivity, the $I\Delta$ value of the upstream device must also be more than double that of the downstream device in accordance with IEC 64-8/563.3, comments. The operative rule to obtain an chronometric (total) selectivity is $I\Delta n$ of the upstream breaker = $3 \times I\Delta n$ of the downstream breaker (e. g.: F 204, S type, 300 mA upstream; F 202, A type, 100 mA downstream).

For safety reasons, the delayed tripping times of the upstream breaker must always be below the safety curve.



Legend

- 1 Theoretical safety curve
- 2 RCD A tripping characteristic
- 3 No-response limit times
- 4 RCD B tripping characteristic

RCDs technical details

Coordination tables: residual current protection selectivity

Table of RCD selectivity

| | Upstream I Δ n [mA] | 10 | 30 | 100 | 300 | 300 | 500 | 500 | 1000 | 1000 |
|---------------------------------|-------------------------------|------|------|------|------|-----|------|-----|------|------|
| Downstream I Δ n [mA] | inst | inst | inst | inst | inst | S | inst | S | inst | S |
| 10 | inst | | ▲ | ▲ | ▲ | ■ | ▲ | ■ | ▲ | ■ |
| 30 | inst | | | ▲ | ▲ | ■ | ▲ | ■ | ▲ | ■ |
| 100 | inst | | | | ▲ | ■ | ▲ | ■ | ▲ | ■ |
| 300 | inst | | | | | | | | ▲ | ■ |
| 300 | S | | | | | | | | ▲ | ▲ |
| 500 | inst | | | | | | | | | |
| 500 | S | | | | | | | | | |
| 1000 | inst | | | | | | | | | |
| 1000 | S | | | | | | | | | |

inst = instantaneous S = selective ▲ = amperometric (partial) selectivity ■ = chronometric (total) selectivity

Back-up F-ATI Test and F-ARI Test

The values has to be delivered from the LAB

| 2P | Rated current [A] | | 25 | 40 | 63 | 80 | 100 |
|--|-------------------|----|----|----|----|----|-----|
| Single phase circuit with neutral 230- 240 V | Fuse gG 25A | kA | 10 | | | | |
| | Fuse gG 40A | | 10 | 10 | | | |
| | Fuse gG 63A | | 10 | 10 | 10 | | |
| | Fuse gG 100A | | 10 | 10 | 10 | | |
| | S800 S | | 6 | 9 | 10 | | |
| | S800 N | | 6 | 9 | 10 | | |
| | S200 | | 7 | 7 | 5 | | |
| | S200 M | | 7 | 7 | 5 | | |
| | S200 P | | 7 | 7 | 5 | | |
| 4P | Rated current [A] | | 25 | 40 | 63 | 80 | 100 |
| Three phase circuit with neutral 400- 415 V | Fuse gG 25A | | 10 | | | | |
| | Fuse gG 40A | | 10 | 10 | | | |
| | Fuse gG 63A | | 10 | 10 | 10 | | |
| | Fuse gG 100A | | 10 | 10 | 10 | 10 | 10 |
| | S800 S | | 10 | 10 | 10 | 10 | 10 |
| | S800 N | | 10 | 10 | 10 | 10 | 10 |
| | S200 | | 10 | 10 | 10 | 10 | 10 |
| | S200 M | | 10 | 10 | 10 | 10 | 10 |
| | S200 P | | 10 | 10 | 10 | 10 | 10 |

Coordination tables: residual current protection selectivity

| RCD | Upstream technology | | | MCB | MCB | MCB | MCB | MCB | MCB | MCB | MCB | MCB | MCB | | |
|-----|---------------------|--|----|------|------|------|------|------|--------|--------|--------|--------|--------|----|----|
| | Product Range | | | SMCB | SMCB | SMCB | SMCB | SMCB | SMCB | SMCB | SMCB | SMCB | SMCB | | |
| | Series | | | S750 | S750 | S750 | S750 | S750 | S750DR | S750DR | S750DR | S750DR | S750DR | | |
| | Characteristics | | | E,K | E,K | E,K | E,K | E,K | E,K | E,K | E,K | E,K | E,K | | |
| | Icu | | | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | | |
| | In | | | 25 | 35 | 40 | 50 | 63 | 25 | 35 | 40 | 50 | 63 | | |
| | A | | | 10 | 25 | 7 | | | 7 | | | | | | |
| | A | | | 10 | 40 | 7 | 7 | 9 | | 7 | 7 | 9 | | | |
| | A | | | 10 | 63 | 7 | 7 | 9 | 9 | 10 | 7 | 7 | 9 | 9 | 10 |
| | A | | | 10 | 25 | 7 | | | | 7 | 7 | 9 | 9 | 10 | |
| A | | | 10 | 40 | 7 | 7 | 9 | | 7 | 7 | 9 | | | | |
| A | | | 10 | 63 | 7 | 7 | 9 | 9 | 10 | 7 | 7 | 9 | 9 | 10 | |

[illegible]

RCDs technical details

Power loss, derating and performance in altitude

Power loss and internal resistance of RCDs and RCBOs

RCCBs F200 series

| Rated current | Power loss per pole W | |
|---------------|-----------------------|-----|
| In [A] | [W] | |
| | 2P | 4P |
| 16 | 1.5 | - |
| 25 | 1.0 | 1.3 |
| 40 | 2.4 | 3.2 |
| 63 | 3.2 | 4.4 |
| 80 | 4.5 | 5.3 |
| 100 | 6.5 | 8.2 |
| 125 | - | 7.5 |

RCCBs F200 Type B

| | In [A] | Per Pole | Total |
|--------|--------|----------|-------|
| F202 B | 16 | 0.02 | 0.04 |
| | 25 | 0.27 | 0.54 |
| | 40 | 1.70 | 3.40 |
| | 63 | 4.22 | 8.44 |
| F204 B | 25 | 0.29 | 1.16 |
| | 40 | 1.81 | 7.23 |
| | 63 | 4.50 | 17.98 |
| | 80 | 3.5 | 14 |
| | 125 | 7.5 | 44.8 |

RCD-Blocks DDA200 series

| Rated current | Power loss W _{lb} * ① | |
|--------------------|--------------------------------|-------|
| I _b [A] | [W] | |
| | 2P | 3P,4P |
| 25 | 2.0 | 3.0 |
| 40 | 3.2 | 4.8 |
| 63 | 5.0 | 7.6 |

* The power loss W_{lb} shown in the table refers to I_b. For use with circuit-breakers with lower rated current I_n the power loss W must be determined using the formula: $W = (I / I_b) \cdot W_{lb}$

RCD-Blocks DDA800

| Rated current | Power loss W _{lb} * ① | |
|---------------|--------------------------------|--------|
| In [A] | [W] | |
| | 2P | 3P, 4P |
| 63 | 9 | 13.5 |
| 100 | 7 | 10.5 |
| 125 | - | 16.6 |

* The power loss W_{lb} shown in the table refers to I_b. For use with circuit-breakers with lower rated current I_n the power loss W must be determined using the formula: $W = (I / I_b) \cdot W_{lb}$

RCBOs DS 200, DS 200 M series

| Rated current | Power loss W ① | | | |
|---------------|--------------------|-------|------------------|-------|
| In [A] | [W] | | | |
| | Characteristic B-C | | Characteristic K | |
| | 2P | 3P/4P | 2P | 3P/4P |
| 6 | 4.1 | 6.2 | 3.9 | 5.9 |
| 10 | 2.9 | 4.4 | 2.9 | 4.2 |
| 13 | 5.2 | 7.7 | 3.1 | 4.5 |
| 16 | 4.5 | 6.6 | 4.9 | 7.2 |
| 20 | 6.4 | 9.3 | 6.8 | 9.9 |
| 25 | 8.5 | 12.4 | 7.9 | 11.5 |
| 32 | 10.9 | 15.7 | 10.7 | 15.4 |
| 40 | 15 | 21.6 | 14.4 | 20.7 |
| 50 | 11.4 | 18.4 | 10.7 | 17.4 |
| 63 | 17.4 | 28.2 | 18.2 | 29.4 |

RCBOs DS201, DS202C series

| | DS201 | | DS202C | |
|---------------|--------------|---------------------|--------------|---------------------|
| Rated current | Power loss ① | Internal resistance | Power loss ① | Internal resistance |
| In [A] | [W] | [mΩ] | [W] | [mΩ] |
| 1 | 1.4 | 1400.0 | | |
| 2 | 1.6 | 400.0 | | |
| 4 | 2.2 | 137.5 | | |
| 6 | 2.4 | 66.7 | 8.1 | 224.8 |
| 8 | 1.9 | 29.7 | | |
| 10 | 1.8 | 18.0 | 4.1 | 40.6 |
| 13 | 2.5 | 15.0 | 3.5 | 21 |
| 16 | 3.3 | 12.8 | 5.4 | 21 |
| 20 | 3.6 | 9.0 | 6.6 | 16.6 |
| 25 | 5.5 | 8.8 | 5.5 | 8.8 |
| 32 | 6.4 | 6.3 | 8.2 | 8 |
| 40 | 5.0 | 3.1 | | |

RCBOs DS203NC series

| In | Power loss [W] | Internal resistance [mΩ] |
|-----|----------------|--------------------------|
| 6A | 7.5 | 207.3 |
| 8A | 4.2 | 66.4 |
| 10A | 5.6 | 55.9 |
| 13A | 7.2 | 42.5 |
| 16A | 10.0 | 39.3 |
| 20A | 11.8 | 29.5 |
| 25A | 10.3 | 16.4 |
| 32A | 15.1 | 14.8 |

DS800 and DS800 N series ①

| Rated current | Rated current | | |
|---------------|---------------|------|------|
| in [A] | 2P | 3P | 4P |
| 125 | 25.7 | 45.7 | 55.1 |

① datas available in the tables are referred to the Power Loss per device

RCDs technical details

Power loss, derating and performance in altitude

| RCBO DSE201 series | | | |
|--------------------|------------------|----------------|--------------------------|
| I_n [A] | Voltage drop [V] | Power loss [W] | Internal resistance [mΩ] |
| 6 | 0.42 | 2.5 | 70 |
| 10 | 0.25 | 2.5 | 25 |
| 16 | 0.24 | 3.8 | 15 |
| 20 | 0.27 | 5.5 | 14 |
| 25 | 0.15 | 3.8 | 6.1 |
| 32 | 0.16 | 5.2 | 5 |
| 40 | 0.14 | 5.5 | 3.4 |
| 50 | 0.11 | 5.3 | 2.1 |

| RCBO DSE201 M series | | | |
|----------------------|------------------|----------------|--------------------------|
| I_n [A] | Voltage drop [V] | Power loss [W] | Internal resistance [mΩ] |
| 6 | 0.30 | 1.8 | 49 |
| 10 | 0.18 | 1.8 | 18 |
| 16 | 0.15 | 2.4 | 9.5 |
| 20 | 0.15 | 3.0 | 7.6 |
| 25 | 0.13 | 3.3 | 5.3 |
| 32 | 0.14 | 4.4 | 4.3 |
| 40 | 0.14 | 5.5 | 3.4 |
| 50 | 0.11 | 5.3 | 2.1 |

Derating of load capability of RCBOs DS 200 series, DS201, DS202C, DS203NC, DSE201 and DSE201 M

For DS 200 see tables for S 200 MCBs in technical details MCBs and dedicated tables for DS201 and DS202C, within the range of temperatures from -25 °C to +55 °C.

Performance in altitude of RCDs

ABB RCDs are able to operate at altitude higher then foreseen by the relevant standard IEC/ EN 61008 and IEC/ EN 61009 taking into account the corrective factor below detailed:

| Elevation | [m] | 2000 | 3000 | 4000 | 5000 | 6000 |
|---------------|-----|------------------|--------------------|--------------------|--------------------|--------------------|
| Rated Current | [A] | $1.0 \times I_n$ | $0.96 \times I_n$ | $0.94 \times I_n$ | $0.92 \times I_n$ | $0.90 \times I_n$ |
| Rated Voltage | [V] | $1.0 \times U_n$ | $0.877 \times U_n$ | $0.775 \times U_n$ | $0.676 \times U_n$ | $0.588 \times U_n$ |

For altitude higher then 3.000 m the isolating characteristic is no longer available.

For DDA800 RCD Blocks according to IEC/EN 60947-2, up to 2000 meters above sea level, the rated characteristics remain unchanged.

With increasing altitude, the properties of the atmosphere change regarding composition, dielectricity, the cooling capacity and the pressure.

The characteristics of the DDA800 RCD Blocks therefore change: this can be measured for the most part using the change in significant parameters such as the maximum rated operational voltage and the rated current:

| Elevation | [m] | 2000 | 3000 | 4000 | 5000 |
|---------------------------------|-----|----------------|-------------------|-------------------|------------------|
| Rated operational voltage U_e | [V] | 690 | 600 | 540 | 470 |
| Max rated current I_n | [A] | $1 \times I_n$ | $0.96 \times I_n$ | $0.93 \times I_n$ | $0.9 \times I_n$ |

Derating in temperature for DS203NC series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C, K. Daily average ambient temperature is intended to be $\leq +35$ °C.

| B, C | Temperature (°C) | | | | | | | | |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| I_n | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 55 |
| 6A | 7.29 | 7.16 | 6.91 | 6.65 | 6.41 | 6.17 | 6.00 | 5.90 | 5.75 |
| 8A | 9.71 | 9.54 | 9.20 | 8.85 | 8.55 | 8.24 | 8.00 | 7.83 | 7.57 |
| 10A | 12.13 | 11.92 | 11.49 | 11.06 | 10.68 | 10.31 | 10.00 | 9.76 | 9.39 |
| 13A | 15.77 | 15.49 | 14.93 | 14.37 | 13.89 | 13.41 | 13.00 | 12.65 | 12.12 |
| 16A | 19.40 | 19.06 | 18.37 | 17.68 | 17.10 | 16.52 | 16.00 | 15.54 | 14.85 |
| 20A | 23.66 | 23.32 | 22.63 | 21.94 | 21.26 | 20.57 | 20.00 | 19.53 | 18.84 |
| 25A | 29.00 | 28.65 | 27.96 | 27.27 | 26.46 | 25.65 | 25.00 | 24.53 | 23.83 |
| 32A | 38.67 | 38.13 | 37.04 | 35.96 | 34.48 | 33.00 | 32.00 | 31.47 | 30.67 |

RCDs technical details

Power loss, derating and performance in altitude

| K | Temperature (°C) | | | | | | | | |
|-----|------------------|------|------|------|------|------|------|------|------|
| In | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 55 |
| 6A | 7.2 | 6.9 | 6.6 | 6.4 | 6.2 | 6.0 | 5.8 | 5.7 | 5.6 |
| 8A | 9.5 | 9.2 | 8.9 | 8.5 | 8.2 | 8.0 | 7.8 | 7.6 | 7.4 |
| 10A | 11.9 | 11.5 | 11.1 | 10.7 | 10.3 | 10.0 | 9.7 | 9.5 | 9.1 |
| 13A | 15.5 | 14.9 | 14.4 | 13.9 | 13.4 | 13.0 | 12.6 | 12.3 | 11.7 |
| 16A | 19.2 | 18.4 | 17.7 | 17.1 | 16.5 | 16.0 | 15.5 | 15.1 | 14.4 |
| 20A | 23.3 | 22.6 | 21.9 | 21.3 | 20.6 | 20.0 | 19.4 | 19.0 | 18.3 |
| 25A | 28.8 | 28.1 | 27.3 | 26.5 | 25.6 | 25.0 | 24.4 | 23.9 | 23.2 |
| 32A | 38.4 | 37.2 | 35.8 | 34.5 | 33.0 | 32.0 | 31.0 | 30.5 | 29.7 |

Derating in temperature for DS201 series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C. Daily average ambient temperature is intended to be $\leq +35$ °C.

| In (A) | Temperature (°C) | | | | | | | | | | | | |
|--------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 | 60 | 65 | 70 |
| 2A | 3.9 | 3.6 | 3.2 | 2.9 | 2.7 | 2.4 | 2.0 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.3 |
| 4A | 6.1 | 5.8 | 5.4 | 5.0 | 4.7 | 4.4 | 4.0 | 3.6 | 3.4 | 3.2 | 3.1 | 3.0 | 2.8 |
| 6A | 8.7 | 8.4 | 7.7 | 7.3 | 7.0 | 6.4 | 6.0 | 5.5 | 5.3 | 5.1 | 4.9 | 4.7 | 4.6 |
| 8A | 10.8 | 10.3 | 9.5 | 9.0 | 8.7 | 8.3 | 8.0 | 7.4 | 7.1 | 7.0 | 6.8 | 6.6 | 6.5 |
| 10A | 13.5 | 13.0 | 12.1 | 11.5 | 11.0 | 10.6 | 10.0 | 9.4 | 9.0 | 8.8 | 8.6 | 8.4 | 8.3 |
| 13A | 16.0 | 15.6 | 14.9 | 14.5 | 14.0 | 13.4 | 13.0 | 12.4 | 11.7 | 11.4 | 11.2 | 11.0 | 10.8 |
| 16A | 18.9 | 18.6 | 18.1 | 17.5 | 17.0 | 16.4 | 16.0 | 15.3 | 14.8 | 14.5 | 14.3 | 14.1 | 14.0 |
| 20A | 24.0 | 23.5 | 22.7 | 22.0 | 21.4 | 20.7 | 20.0 | 19.1 | 18.5 | 18.3 | 18.0 | 17.8 | 17.7 |
| 25A | 27.9 | 27.5 | 27.1 | 26.6 | 26.0 | 25.3 | 25.0 | 24.3 | 23.6 | 23.4 | 23.2 | 23.0 | 22.8 |
| 32A | 36.8 | 36.2 | 35.4 | 34.8 | 34.0 | 32.9 | 32.0 | 31.3 | 30.5 | 30.0 | 29.7 | 29.5 | 29.4 |
| 40A | 44.8 | 44.6 | 44.0 | 43.2 | 42.1 | 41.0 | 40.0 | 39.0 | 38.1 | 37.9 | 37.6 | 37.4 | 37.2 |

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type K. Daily average ambient temperature is intended to be $\leq +35$ °C.

| In (A) | Temperature (°C) | | | | | | | | | | | | |
|--------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 | 60 | 65 | 70 |
| 1A | 2.2 | 2.2 | 1.7 | 1.5 | 1.3 | 1.0 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 |
| 2A | 3.5 | 3.2 | 2.8 | 2.8 | 2.4 | 2.0 | 1.8 | 1.8 | 1.7 | 1.6 | 1.5 | 1.5 | 1.4 |
| 4A | 5.7 | 5.3 | 4.9 | 4.8 | 4.4 | 4.0 | 3.6 | 3.4 | 3.3 | 3.0 | 2.9 | 2.8 | 2.8 |
| 6A | 8.0 | 7.7 | 7.4 | 7.0 | 6.5 | 6.0 | 5.4 | 5.3 | 5.2 | 4.8 | 4.7 | 4.6 | 4.5 |
| 8A | 10.0 | 9.5 | 9.0 | 8.7 | 8.2 | 8.0 | 7.4 | 7.1 | 7.0 | 6.7 | 6.6 | 6.5 | 6.4 |
| 10A | 12.6 | 12.1 | 11.5 | 11.0 | 10.5 | 10.0 | 9.4 | 9.1 | 8.9 | 8.8 | 8.6 | 8.4 | 8.3 |
| 13A | 15.4 | 14.9 | 14.4 | 14.1 | 13.4 | 13.0 | 12.5 | 11.8 | 11.4 | 11.2 | 11.0 | 10.8 | 10.7 |
| 16A | 18.7 | 18.2 | 17.5 | 17.0 | 16.4 | 16.0 | 15.4 | 14.7 | 14.6 | 14.3 | 14.2 | 14.0 | 13.9 |
| 20A | 23.1 | 22.7 | 22.1 | 21.3 | 20.7 | 20.0 | 19.1 | 18.5 | 18.2 | 18.1 | 17.9 | 17.8 | 17.7 |
| 25A | 27.4 | 27.1 | 26.5 | 26.0 | 25.4 | 25.0 | 24.3 | 23.6 | 23.4 | 23.2 | 23.0 | 22.8 | 22.6 |
| 32A | 36.1 | 35.4 | 34.9 | 34.0 | 32.8 | 32.0 | 31.2 | 30.5 | 29.9 | 29.7 | 29.5 | 29.4 | 29.3 |
| 40A | 44.4 | 43.9 | 43.2 | 42.1 | 40.9 | 40.0 | 39.0 | 38.2 | 37.7 | 37.4 | 37.2 | 37.0 | 36.8 |

RCDs technical details

Power loss, derating and performance in altitude

Derating in temperature for DS202C series

Max. operating current depending on the ambient temperature of a circuit-breaker in load circuit of characteristics type B, C and K. Daily average ambient temperature is intended to be $\leq +35^{\circ}\text{C}$.

| B, C | Temperature ($^{\circ}\text{C}$) | | | | | | | | | |
|--------|------------------------------------|------|------|------|------|------|-----|------|------|-------|
| In (A) | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 2 | 2.6 | 2.5 | 2.4 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 1.8 | 1.7 |
| 4 | 4.9 | 4.8 | 4.6 | 4.5 | 4.3 | 4.2 | 4 | 3.8 | 3.7 | 3.6 |
| 6 | 7.95 | 7.8 | 7.4 | 7.1 | 6.7 | 6.4 | 6 | 5.6 | 5.3 | 5.1 |
| 8 | 10.3 | 10.1 | 9.7 | 9.3 | 8.8 | 8.4 | 8 | 7.6 | 7.2 | 6.95 |
| 10 | 11.8 | 11.6 | 11.3 | 11.0 | 10.7 | 10.3 | 10 | 9.7 | 9.3 | 9.15 |
| 13 | 15.65 | 15.4 | 14.9 | 14.4 | 14.0 | 13.5 | 13 | 12.5 | 12.0 | 11.8 |
| 16 | 18.65 | 18.4 | 17.9 | 17.4 | 17.0 | 16.5 | 16 | 15.5 | 15.0 | 14.8 |
| 20 | 23.1 | 22.8 | 22.2 | 21.7 | 21.1 | 20.6 | 20 | 19.4 | 18.9 | 18.6 |
| 25 | 30.8 | 30.3 | 29.2 | 28.2 | 27.1 | 26.1 | 25 | 23.9 | 22.9 | 22.35 |
| 32 | 39.3 | 38.6 | 37.3 | 36.0 | 34.7 | 33.3 | 32 | 30.7 | 29.3 | 28.65 |
| 40 | 50.7 | 49.7 | 47.8 | 45.8 | 43.9 | 41.9 | 40 | 38.1 | 36.1 | 35.15 |

| K | Temperature ($^{\circ}\text{C}$) | | | | | | | | | |
|--------|------------------------------------|------|------|------|------|----|------|------|------|------|
| In (A) | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 2 | 2.5 | 2.4 | 2.4 | 2.3 | 2.1 | 2 | 1.9 | 1.7 | 1.7 | 1.7 |
| 4 | 4.7 | 4.6 | 4.4 | 4.4 | 4.1 | 4 | 3.8 | 3.8 | 3.6 | 3.6 |
| 6 | 7.8 | 7.5 | 7.2 | 6.7 | 6.4 | 6 | 5.5 | 5.4 | 5.0 | 5.1 |
| 8 | 10.1 | 9.7 | 9.2 | 8.9 | 8.3 | 8 | 7.6 | 7.3 | 6.9 | 6.7 |
| 10 | 11.6 | 11.3 | 11.0 | 10.8 | 10.2 | 10 | 9.8 | 9.2 | 9.2 | 8.9 |
| 13 | 15.4 | 14.9 | 14.4 | 13.9 | 13.5 | 13 | 12.6 | 12.0 | 11.8 | 11.6 |
| 16 | 18.5 | 17.8 | 17.3 | 17.0 | 16.4 | 16 | 15.5 | 15.0 | 14.9 | 14.5 |
| 20 | 22.8 | 22.2 | 21.7 | 21.2 | 20.6 | 20 | 19.3 | 18.9 | 18.7 | 18.2 |
| 25 | 30.3 | 29.3 | 28.1 | 27.1 | 26.2 | 25 | 24.0 | 23.0 | 22.3 | 22.0 |
| 32 | 38.6 | 37.4 | 35.9 | 34.8 | 33.3 | 32 | 30.7 | 29.2 | 28.6 | 27.9 |
| 40 | 49.7 | 47.8 | 45.8 | 44.0 | 41.9 | 40 | 38.2 | 36.1 | 35.2 | 34.5 |

RCDs technical details

Power loss, derating and performance in altitude

Derating in temperature for DSE201 series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B. C.
Daily average ambient temperature is intended to be $\leq +35\text{ }^{\circ}\text{C}$.

| | Temperature ($^{\circ}\text{C}$) | | | | | | | | | |
|------|------------------------------------|------|------|------|------|------|------|------|------|------|
| In | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 6 A | 8.1 | 8.0 | 7.8 | 7.4 | 6.9 | 6.5 | 6.0 | 5.9 | 5.8 | 5.7 |
| 10 A | 13.8 | 13.5 | 13.0 | 12.3 | 11.6 | 10.8 | 10.0 | 9.9 | 9.7 | 9.7 |
| 16 A | 19.7 | 19.5 | 19.1 | 18.5 | 17.6 | 16.6 | 16.0 | 15.8 | 15.5 | 15.4 |
| 20 A | 23.7 | 23.5 | 23.2 | 22.7 | 21.6 | 20.5 | 20.0 | 19.7 | 19.4 | 19.2 |
| 25 A | 30.2 | 29.2 | 29.2 | 28.4 | 27.0 | 25.7 | 25.0 | 24.6 | 24.1 | 23.9 |
| 32 A | 39.4 | 37.7 | 37.7 | 36.4 | 34.7 | 33.0 | 32.0 | 31.4 | 30.7 | 30.4 |
| 40 A | 50.3 | 47.9 | 47.9 | 45.6 | 43.6 | 41.5 | 40.0 | 39.0 | 38.4 | 38.1 |
| 50 A | 61.1 | 59.2 | 59.2 | 57.1 | 54.4 | 51.7 | 50.0 | 48.8 | 48.0 | 47.9 |

Derating in temperature for DSE201 M series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C.
Daily average ambient temperature is intended to be $\leq +35\text{ }^{\circ}\text{C}$.

| | Temperature ($^{\circ}\text{C}$) | | | | | | | | | |
|------|------------------------------------|------|------|------|------|------|------|------|------|------|
| In | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 6 A | 7.3 | 7.2 | 6.9 | 6.7 | 6.4 | 6.2 | 6.0 | 5.9 | 5.9 | 5.8 |
| 10 A | 13.0 | 12.9 | 12.2 | 11.4 | 10.9 | 10.4 | 10.0 | 9.8 | 9.7 | 9.5 |
| 16 A | 20.2 | 19.7 | 18.7 | 17.8 | 17.3 | 16.6 | 16.0 | 15.8 | 15.4 | 15.2 |
| 20 A | 26.0 | 19.7 | 24.0 | 22.8 | 21.9 | 20.7 | 20.0 | 19.8 | 19.6 | 19.5 |
| 25 A | 32.6 | 25.2 | 30.4 | 29.0 | 27.5 | 26.0 | 25.0 | 24.6 | 24.2 | 23.9 |
| 32 A | 41.1 | 31.5 | 38.0 | 36.3 | 34.8 | 33.1 | 32.0 | 30.9 | 29.8 | 29.6 |
| 40 A | 50.3 | 49.4 | 47.9 | 45.6 | 43.7 | 41.5 | 40.0 | 39.0 | 38.4 | 38.1 |
| 50 A | 61.1 | 60.4 | 59.2 | 57.1 | 54.4 | 51.7 | 50.0 | 48.8 | 48.0 | 47.9 |

RCDs technical details

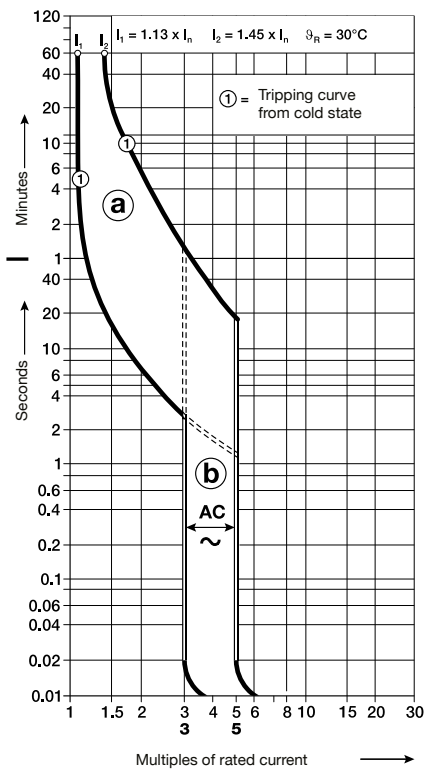
Tripping characteristic

Tripping characteristics valid for all the RCBOs

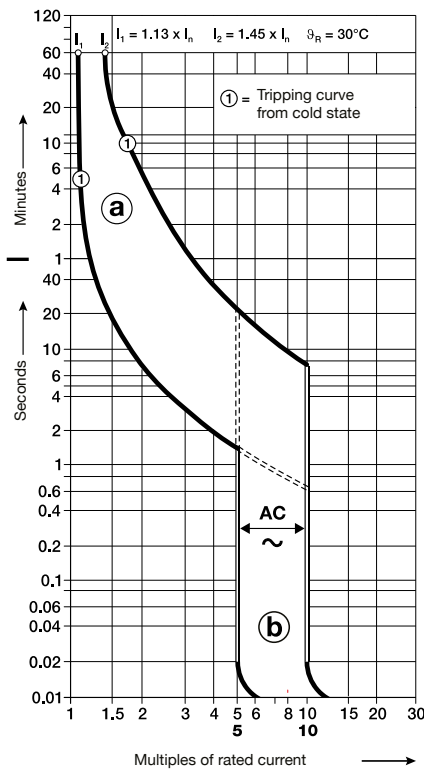
| Acc. to | Tripping characteristic and rated current | Thermal release ② | | | Electromagnetic release ① | | |
|----------------|---|-----------------------------------|-------------------------------|---------------------------|---------------------------|------------------|-------------------|
| | | Current: | | Tripping time | Currents: | | Tripping time |
| | | conventional non-tripping current | conventional tripping current | | hold current surges | trip at least at | |
| IEC/EN 60898-1 | B | 6 to 40 A | $1.13 \cdot I_n$ | $> 1 \text{ h}$ | $3 \cdot I_n$ | | $> 0.1 \text{ s}$ |
| | | | $1.45 \cdot I_n$ | $< 1 \text{ h}$ | | $5 \cdot I_n$ | $< 0.1 \text{ s}$ |
| | C | 2 to 40 A | $1.13 \cdot I_n$ | $> 1 \text{ h}$ | $5 \cdot I_n$ | | $> 0.1 \text{ s}$ |
| | | | $1.45 \cdot I_n$ | $< 1 \text{ h}$ | | $10 \cdot I_n$ | $< 0.1 \text{ s}$ |
| IEC/EN 60947-2 | K | 1 to 40 A | $1.05 \cdot I_n$ | $> 1 \text{ h}$ | $10 \cdot I_n$ | | $> 0.2 \text{ s}$ |
| | | | $1.2 \cdot I_n$ | $< 1 \text{ h} \text{ ③}$ | | $14 \cdot I_n$ | $< 0.2 \text{ s}$ |
| | | | $1.5 \cdot I_n$ | $< 2 \text{ min. ③}$ | | | |
| | | | $6.0 \cdot I_n$ | $> 2 \text{ s (T1)}$ | | | |

- ① The indicated electromagnetic tripping values apply to a frequency range of 16 2/3 ... 60 Hz. For different network frequencies or direct current the values change according to the multiplier in the table below.
- ② The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 20 °C, for B and C = 30 °C.
In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.
- ③ As from operating temperature (after $I_1 > 1 \text{ h}$ or, as applicable, 2 h).

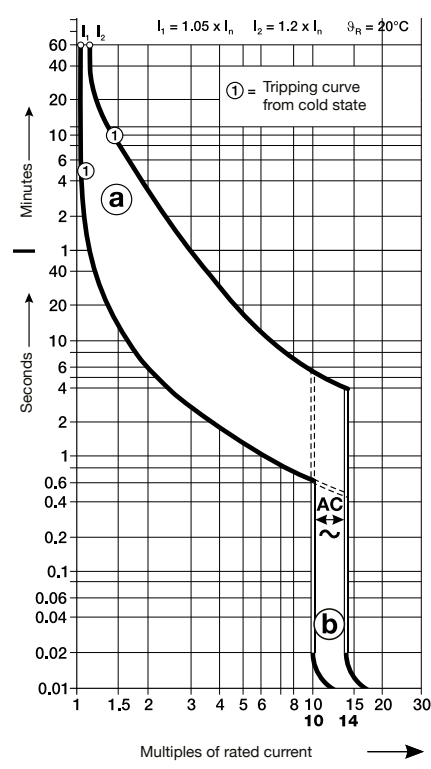
Characteristic B
IEC/EN 61009-1



Characteristic C
IEC/EN 61009-1



Characteristic K
IEC-EN60947-2



- ① thermal trip
② electromagnetic trip

RCDs technical details

Emergency stop using DDA 200 AE series



RCD-blocks type AE

Emergency stop using DDA 200 AE series RCD-blocks

The AE series RCD-block combines the protection supplied by the RCBOs with a positive safety emergency stop function for remote tripping.

In the AE version, the DDA 200 AE series RCD-blocks are available.

Operating principle (patented)

Two additional primary circuits powered with the same voltage and equipped with the same resistance have been added to the transformer; under normal conditions the same current would flow through, but since they are wound by the same number of coils in opposite directions they cancel each other out and do not produce any flow.

One of these two windings acts as the remote control circuit: the emergency stop is obtained by interrupting the current flow in this circuit.

The positive safety is therefore obvious: an accidental breakage in the circuit is equivalent to operating an emergency control button.

Advantages

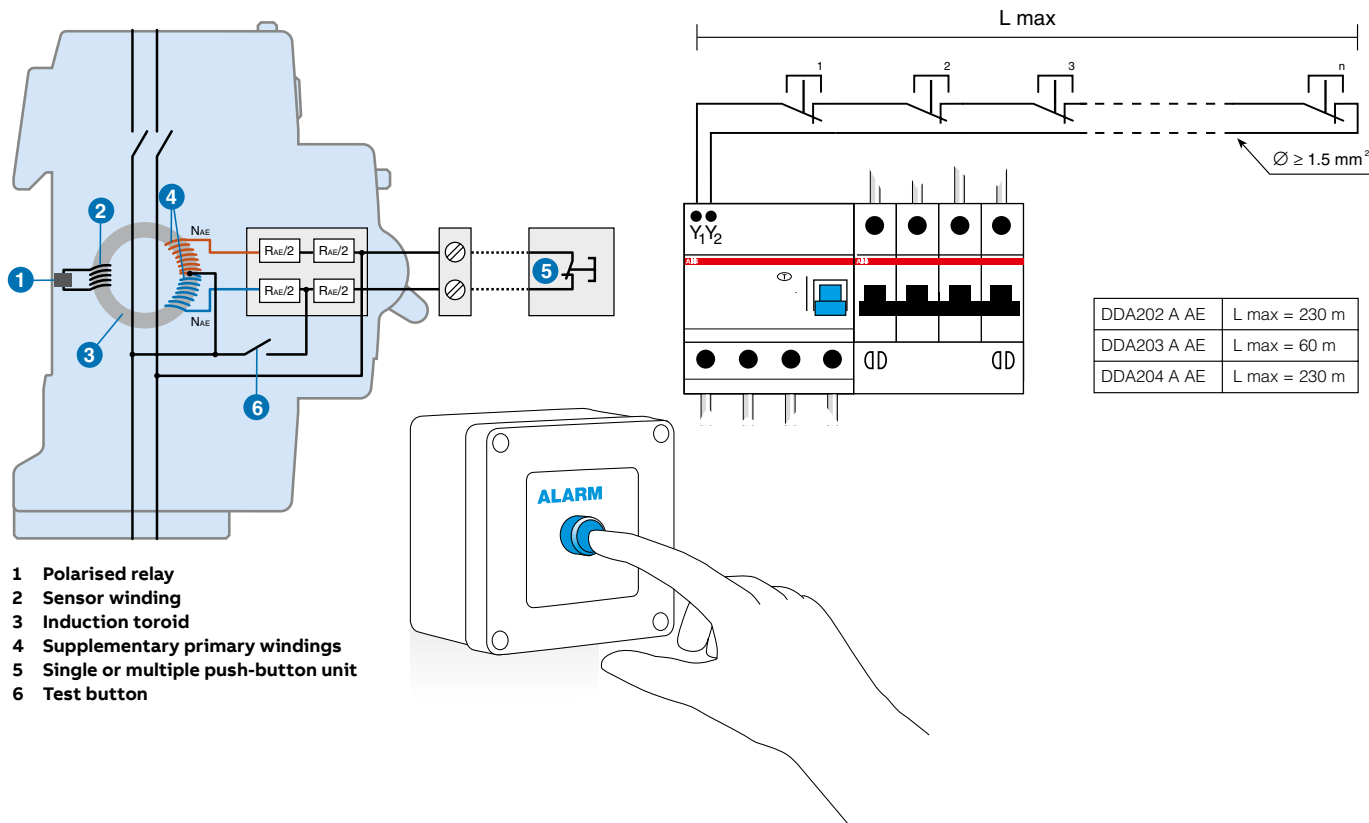
Compared with the devices which are normally used in emergency circuits, DDA 200 AE blocks have the following advantages:

- positive safety
- no unwanted tripping if there is a temporary reduction or interruption of the mains voltage
- efficient immediate operation even after long off-service periods of the installation

Use

Application of the DDA 200 AE blocks complies with the requirements of IEC 60364-8. They are therefore suitable, for example, for escalators, lifts, hoists, electrically operated gates, machine tools, car washes and conveyor belts.

No more than one DDA 200 AE can be controlled using the same control circuit. Each DDA 200 AE requires a dedicated control circuit.



RCDs technical details

Unwanted tripping - AP-R solution (high immunity)

Unwanted tripping

In the event of disturbance in the mains, the RCDs normally present in the system are tripped, breaking the circuit even in the absence of a true earth fault.

Disturbances of this kind are most often caused by:

- operation overvoltages caused by inserting or removing loads (opening or closing protection of control devices, starting and stopping motors, switching fluorescent lighting systems on and off, etc.)
- overvoltages of atmospheric origin, caused by direct or indirect discharges on the electrical line.

Under these circumstances, breaker tripping is unwanted, since it does not satisfy the need to avoid the risks due to direct and indirect contacts. On the contrary, the sudden and unjustified interruption of the power supply may result in very serious problems.

AP-R RCDs

The ABB range of AP-R anti-disturbance residual current circuit-breakers and blocks was designed to overcome the problem of unwanted tripping due to overvoltages of atmospheric or operation origin.

The electronic circuit in these devices can distinguish between temporary leakage caused by disturbances on the mains and permanent leakage due to actual faults, only breaking the circuit in the latter case.

AP-R residual current circuit-breakers and blocks have a slight delay into the tripping time, but this does not compromise the safety limits set by the Standards in force (release time at $2 I_{\Delta n}=150$ ms).

Guaranteeing conventional residual current protection, their installation in the electrical circuit therefore allows any unwanted tripping to be avoided in domestic and industrial systems in which service continuity is essential.

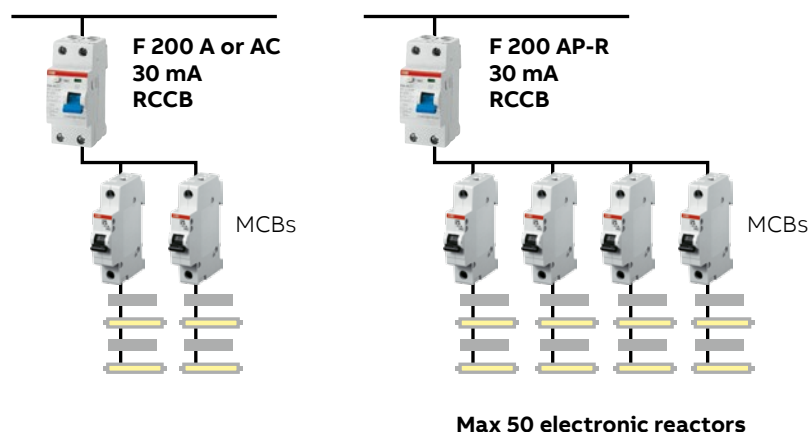
This delay makes the AP-R residual current devices especially suited for installations involving motor starters/variable speed drives, fluorescent lamps or IT/electronic equipment.

The use of multiple electronic reactors for the supply of fluorescent lamps instead generates permanent leakage currents and inrush currents that can cause nuisance tripping of a standard residual current circuit breaker. IT system loads and other electronic equipment (e.g. dimmers, computers, inverters) with capacitive input filters connected between the phases and ground can also generate permanent earth leakage currents whose sum may provoke the nuisance tripping of a standard residual current circuit breaker. For these situations, the AP-R breakers allow a greater number of devices to be connected to the installation.

Frequency converters include a rectifier section and an inverter section.

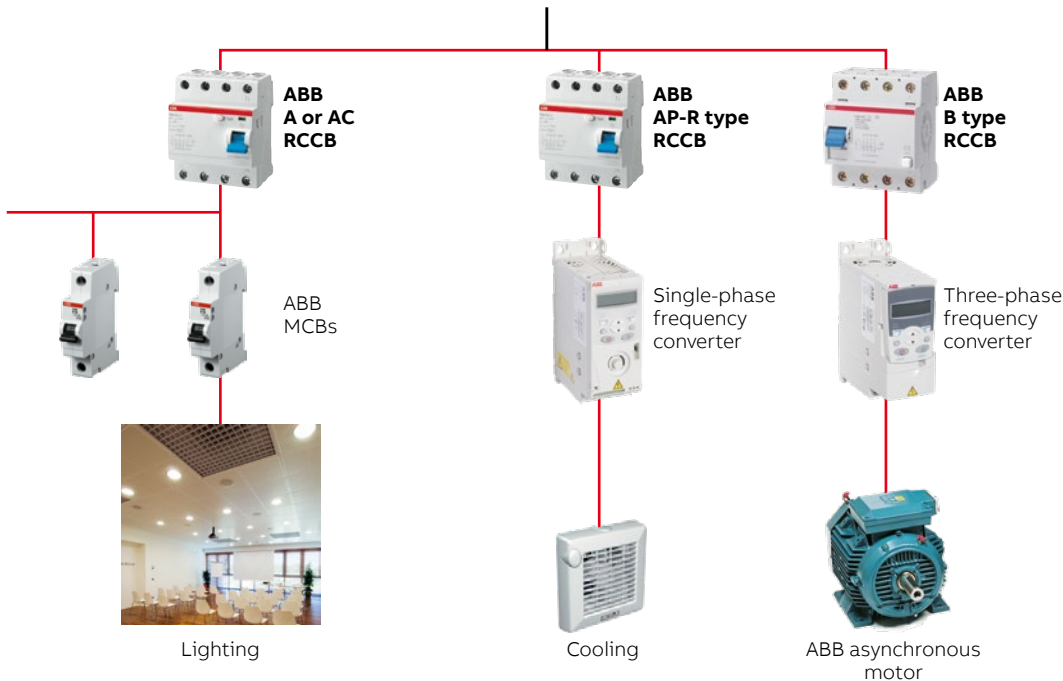
In case of fault within a single-phase frequency converter AP-R type RCDs provide complete protection, because an earth fault occurring downstream the inverter, produces an earth fault current with multi-frequency shape with high amount of harmonics.

While, in case of fault within a three-phase frequency converter, B type RCDs ensure complete protection because in case of insulation fault between the rectifier and the inverter or downstream the inverter we can have a smooth DC earth fault current.



RCDs technical details

Unwanted tripping - AP-R solution (high immunity)



Compared with standard type breakers, AP-R residual current breakers are therefore characterised, for any given sensibility, by:

- Higher residual trip current
- Tripping time delay
- Better resistance to overvoltages, harmonics and impulse disturbances.

Regulations

The tests set out in the IEC 61008 and IEC 61009 standards verify the resistance of residual current breakers to unwanted tripping provoked by operation overvoltages, using a ring wave impulse shape of 0.5 μ s/100 kHz. All

residual current circuit-breakers are required to pass this test with a peak current value of 200 A.

For what concerns atmospheric overvoltages, the IEC 61008 and 61009 standards prescribe the 8/20 μ s surge test with a 3000 A peak current, but limit the requirement to residual current devices classified as selective; no test is required for other types.

The ABB range of AP-R anti-nuisance tripping breakers and blocks pass the general 0.5 μ s/100 kHz ring wave test and also withstand the 8/20 μ s impulse test with the same peak current of 3000 A prescribed for selective devices.

| | A or AC | AP-R | B | Selective |
|--|---------|------|------|-----------|
| Resistance to unwanted tripping caused by network disturbances with wave shape (0.5 μ s/100 kHz) | 250 | 250 | 200 | 250 |
| Resistance to nuisance tripping due to overvoltages (operational or atmospheric) peak (8/20 wave) | 250 | 3000 | 3000 | 5000 |

RCDs technical details

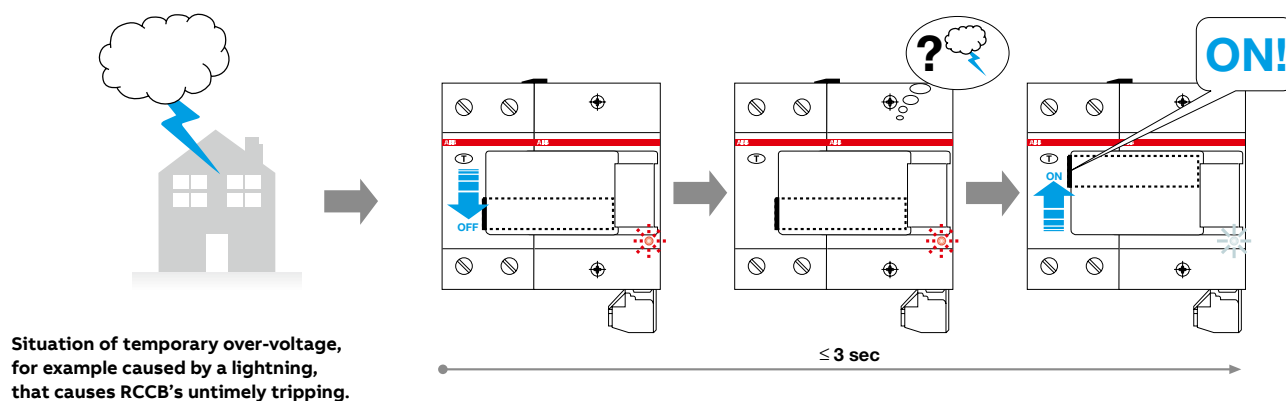
Unwanted tripping - F2C-ARH solution

The F2C-ARH is an auto-reclosing device particularly suited for household and similar uses. It doesn't require a separate low voltage power supply, and can be supplied by the associated RCCBs (2 pole RCCBs up to 63 A – 30 mA) at the 230 V a.c. rated voltage.

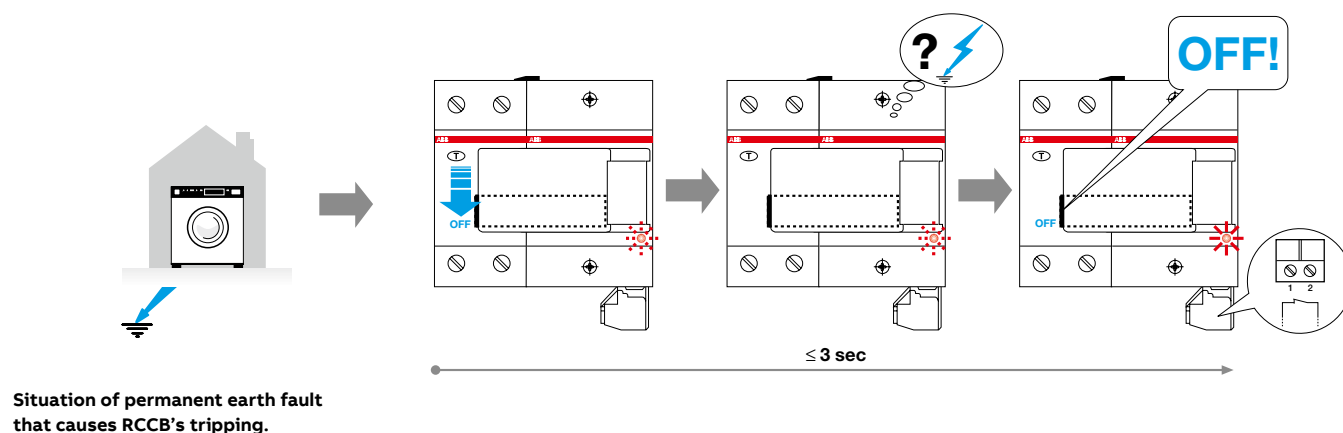
Another feature that makes the product ideal for home applications is an internal control unit that checks there are

no insulation faults in the system before allowing the RCCB to reclose.

This ensures that reclosing occurs only in case of unwanted tripping of the RCCB (i.e. overvoltages induced by electrical storms), thus assuring continuity of power supply also in these situations.



When the RCCB operates in presence of an effective insulation fault, the auto-reclosing device doesn't allow its reclosing and guarantees the system insulation.



RCDs technical details

Type B RCDs

Type B RCDs

In industrial electrical applications it is more and more common to use devices where in the event of an earth fault current unidirectional direct currents or currents with a minimum residual ripple which flow through the PE conductor can emerge. These devices can be for example inverters, medical equipment (e.g. x-ray equipment and CAT), or UPS.

Type A RCDs sensitive to pulsating currents (in addition to sinusoidal currents detected by RCDs of type AC as well) cannot detect and break these earth fault direct currents or currents with a minimum level residual ripple. In case there are electrical appliances which generate this type of currents in the event of an earth fault the use of RCDs of type AC or type A would not be appropriate.

In order to meet these new demands, type B RCDs have been designed (which are able to detect the same earth fault currents detected by type AC and type A RCDs).

This type of RCD (type B) is not mentioned in the reference standards for RCDs (IEC 61008-1 and IEC 61009-1).


An international standard has been introduced in 2007 and it specifies additional requirements for B type RCDs.

This new standard, IEC 62423, can only be referred to together with IEC 61008-1 (for RCCBs) and IEC 61009-1 (for RCD-blocks and RCBOs), this means that B type RCDs have to be compliant to all the prescriptions of IEC 61008/9.

As already said, type B RCDs are not only sensitive to alternating and pulsating earth fault currents with DC components at a frequency of 50/60 Hz (type A), but they are also sensitive to:

- alternating currents up to a frequency of 1000 Hz;
- alternating and/or pulsating currents with DC components overlapping with a direct current;
- earth fault currents generated by a rectifier with two or more phases;
- direct earth fault currents without residual ripple

...independently of the polarity or whether the earth fault current appears suddenly or increases gradually.

Type B RCDs must be marked with the following symbols highlighting the switches' capacity to detect every type of current: .

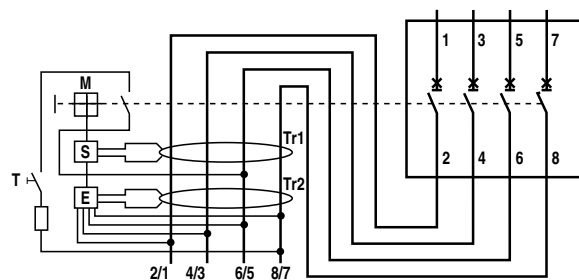
RCDs technical details

Type B RCDs

Construction features

Type B RCDs consist of one section for the detection of alternating earth fault currents and unidirectional pulsating earth fault currents, which functions independently of the line voltage. For the detection of direct earth fault currents or currents with a minimum residual ripple, type B RCDs have a second electronic section, the functioning of which depends on the line voltage.

The structure of the product is illustrated in the following diagram.





S Release

M Protection device mechanism

E Electronics for the intervention with direct unidirectional earth fault currents

T Test device

Tr1  Residual current transformer for the detection of sinusoidal earth fault currents

Tr2  Residual current transformer for the detection of direct unidirectional currents.

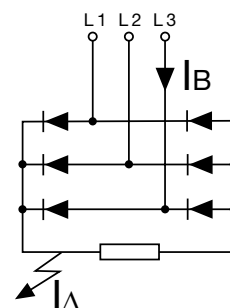
The residual current transformer Tr1 monitors the presence of pulsating and alternating earth fault currents in the electronic installation while residual current transformer Tr2 measures the direct unidirectional currents. In the event of a fault the second transformer transmits the opening command to the release S via the (printed) circuit board E. In type B RCCBs, the section whose functioning depends on the line voltage is supplied by all three-phase conductors and the neutral, so that the functioning as type B is guaranteed even if there is a voltage only in two of the 4 power conductors. In addition, the supply of the electronic section is sized in such a way that the device can safely intervene even if there is a voltage drop of 70%. In this way an intervention takes place when direct unidirectional earth fault currents emerge, even in the event of faults in the electric power supply grid, for example if there is no neutral conductor.

Direct or similar earth fault currents

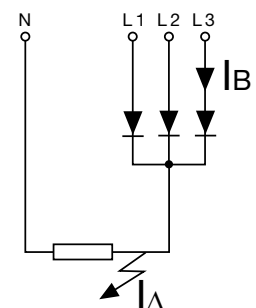
An increasing amount of industrial equipment is supplied by circuits which in the event of a fault generate direct earth fault currents with a very low residual ripple, which can be even less than 10%. For example with direct current supplied motor drives for pumps, elevators, textile machines etc. it is becoming more common to use inverters with a three-phase rectifier bridge.

In the event of an earth fault current the wave of the earth fault is as indicated in the figure below.

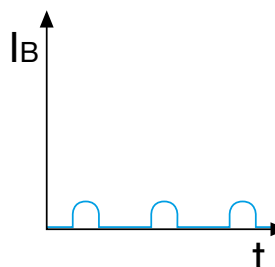
Three-phase rectifier bridge



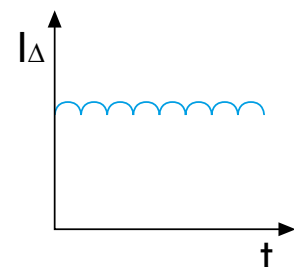
Three-phase wye rectifier



Phase currents



Earth fault current



RCDs technical details

Type B RCDs

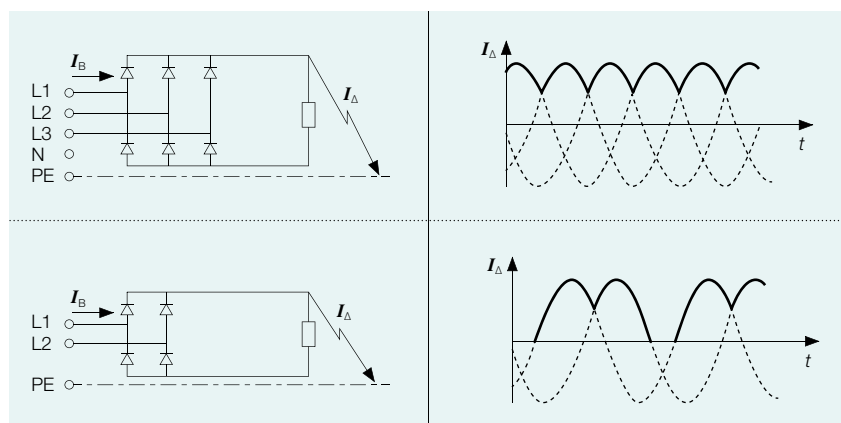
F200 B RCCBs provide additional protection against direct contact and are the right choice to ensure maximum system safety thanks to early detection of fault currents with continuous waveforms or high frequencies.

Selection of RCDs. General rules

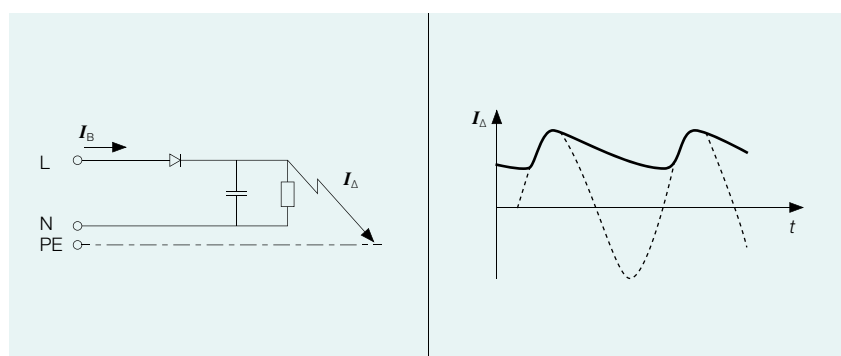
Type B RCDs are suitable for non-linear circuits that can generate leakages with high direct current (> 6 mA) and/or high frequency components. Such components can be found in several industrial components and applications that embed or depend on electronics.

The main circuits that can be considered responsible for such leakages and the common applications where Type B could be demanded are:

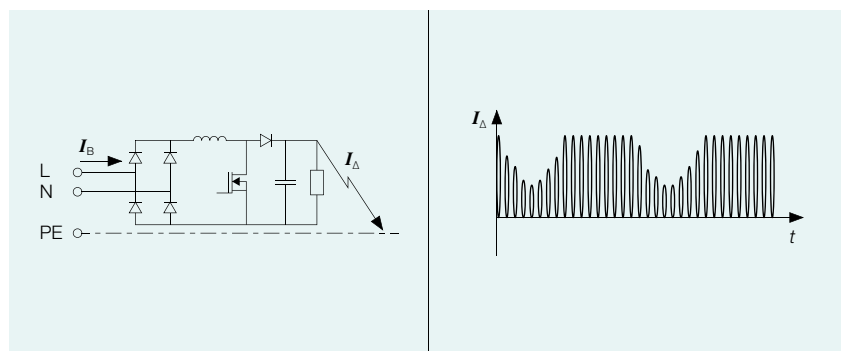
Circuits containing single and three-phase rectifiers



Circuits containing rectifiers with high levelling capacity



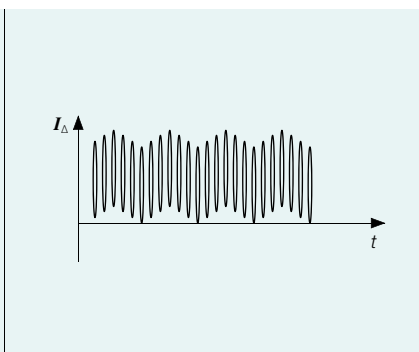
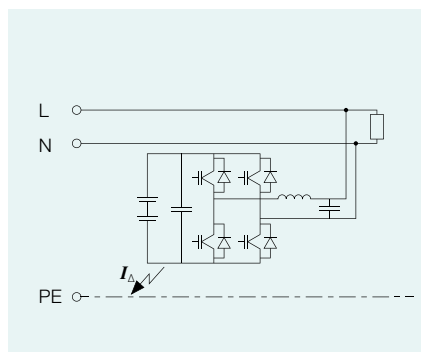
Circuits containing rectifiers with active power factor correction



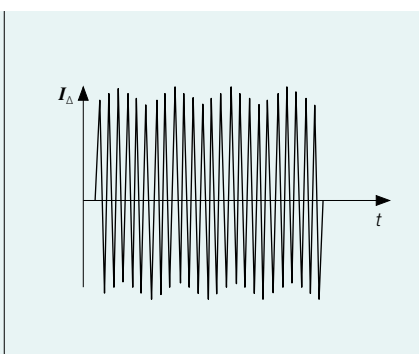
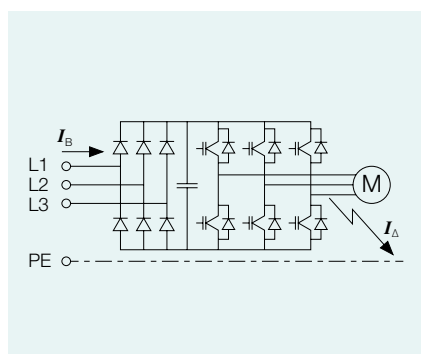
RCDs technical details

Type B RCDs

Circuits containing continuous voltage generators with no separation from a.c. network



Circuits containing continuous voltage generators












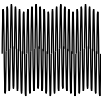
RCDs technical details

Type B RCDs

Immunity to nuisance tripping: advantages of Type B RCCBs

RCDs Type B are advance-designed products that, on one hand, are able to protect from different kinds of faults, regardless of their waveform; on the other hand, they are immune to unwanted trippings.

In order to be such an effective device in terms of protection, every Type B RCD must withstand successfully all the tests provided by the Standards. In the testplan are foreseen several tripping waveforms that are considered to represent the best approximation to a real fault condition in case of non linear circuits.

| Tripping waveforms for Type B RCDs | | |
|--|---|---|
| | Residual current form | Limit value of tripping current |
| Alternating |  | $0,5...1,0 I_{\Delta n}$ |
| Unidirectional pulsating |  | $0,35...1,4 I_{\Delta n}$ |
| Unidirectional pulsating with phase angle mode |  | Cut-off angle 90° from $0,25$ to $1,4 I_{\Delta n}$ |
| | | Cut-off angle 135° from $0,11$ to $1,4 I_{\Delta n}$ |
| Alternating sinusoidal residual current plus pulsating dc current, suddenly applied or smoothly increasing |  | Max. $1,4 I_{\Delta n} + 0,4 I_{\Delta n}$ d.c. |
| Unidirectional pulsating superimposed on direct |  | Max. $1,4 I_{\Delta n} + 0,4 I_{\Delta n}$ d.c. |
| Multi-frequency |  | From $0,5$ to $1,4 I_{\Delta n}$ |
| Two-phase rectified |  | From $0,5$ to $2,0 I_{\Delta n}$ |
| Three-phase rectified |  | |
| Direct without ripple |  | |
| Alternating up to 1 kHz |  | Current frequency 150 Hz from $0,5$ to $2,4 I_{\Delta n}$ |
| | | Current frequency 400 Hz from $0,5$ to $6 I_{\Delta n}$ |
| | | Current frequency 1000 Hz from $0,5$ to $14 I_{\Delta n}$ |

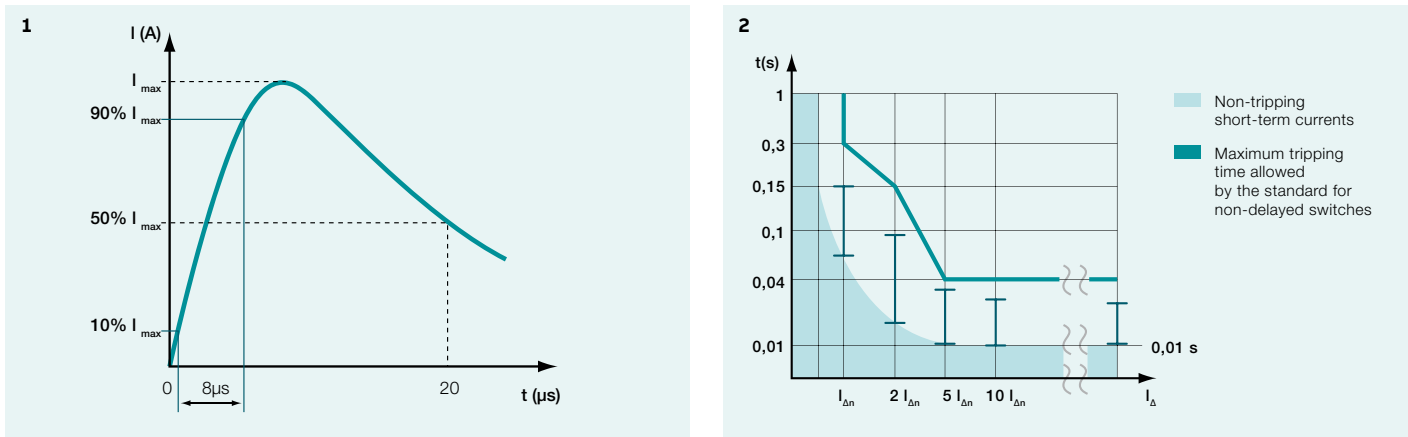
RCDs technical details

Type B RCDs

To prove their immunity to unwanted tripping, Type B residual current devices must successfully pass further severe tests such as:

- 8/20 μ s impulse up to 3000 A (s. fig. 1);
- 10 ms impulse up to $10 I_{\Delta n}$ (s. fig. 2).

These tests emulate the conditions that an RCD must withstand in case of overvoltages or leakages due to EMC filters or electronic loads. Type B devices can be considered suitable for all difficult applications, not only in terms of protection, but of operational continuity as well.



| Tripping times | | | | | |
|------------------------------|-----------------------|---------------------------|------------------------------------|------------------------------------|---------------|
| Type | Fault currents | Tripping time at | | | |
| | Alternating currents | $1 \times I_{\Delta n}$ | $2 \times I_{\Delta n}$ | $5 \times I_{\Delta n}$ | 500 A |
| | Pulsating DC currents | $1,4 \times I_{\Delta n}$ | $2 \times 1,4 \times I_{\Delta n}$ | $5 \times 1,4 \times I_{\Delta n}$ | 500 A |
| | Smooth DC currents | $2 \times I_{\Delta n}$ | $2 \times 2 \times I_{\Delta n}$ | $5 \times 2 \times I_{\Delta n}$ | 500 A |
| Standard or short-time delay | | Max. 0,3 s | Max. 0,15 s | Max. 0,04 s | Max. 0,04 s |
| Selectiv S | | 0,13 - 0,5 s | 0,06 - 0,2 s | 0,05 - 0,15 s | 0,04 - 0,15 s |

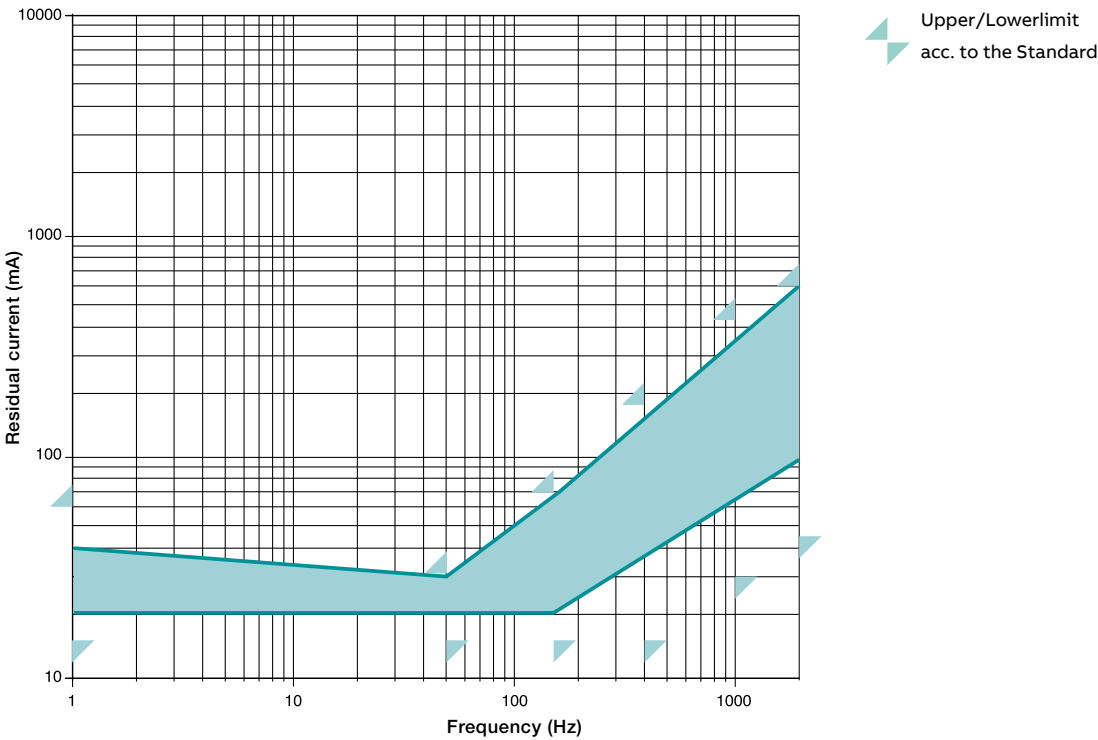


RCDs technical details

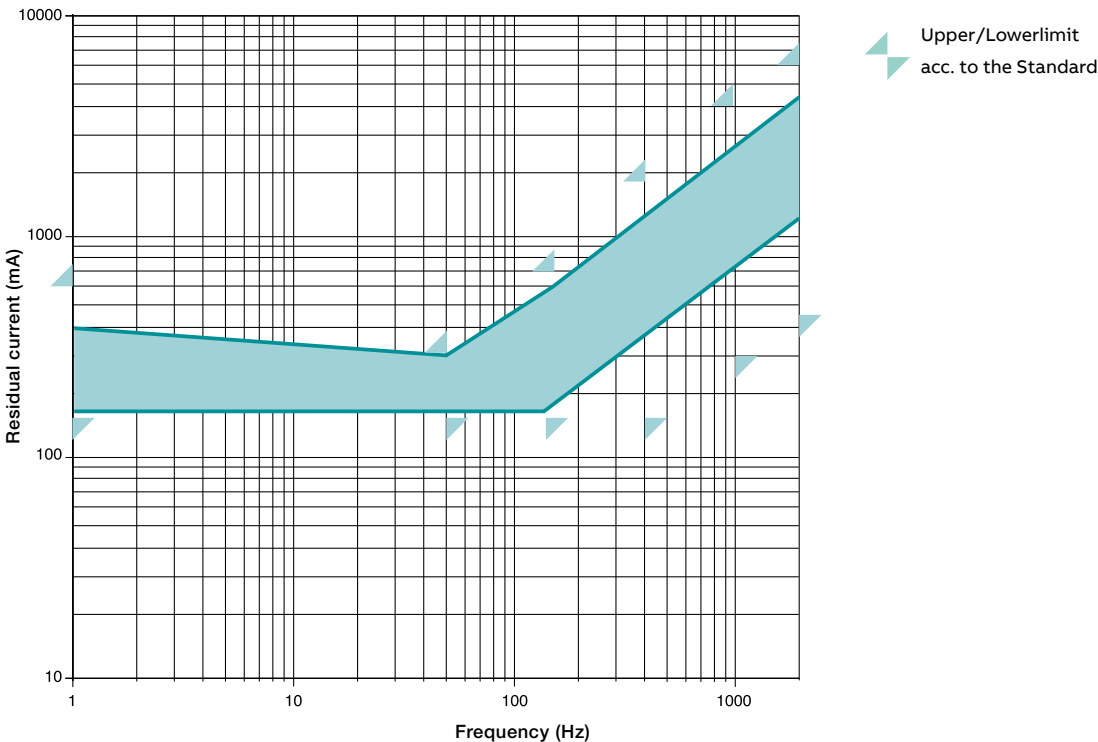
Type B RCDs

Variation of residual current tripping thresholds according to frequency

F200 B 30 mA



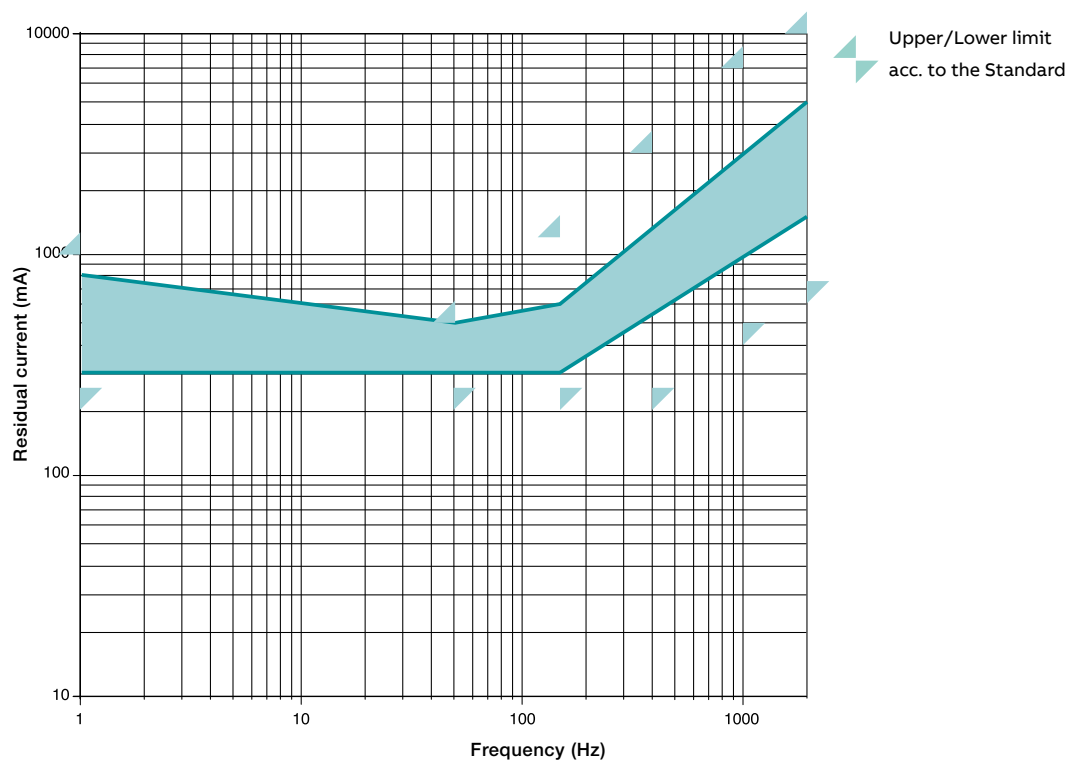
F200 B 300 mA



RCDs technical details

Type B RCDs

F200 B 500 mA

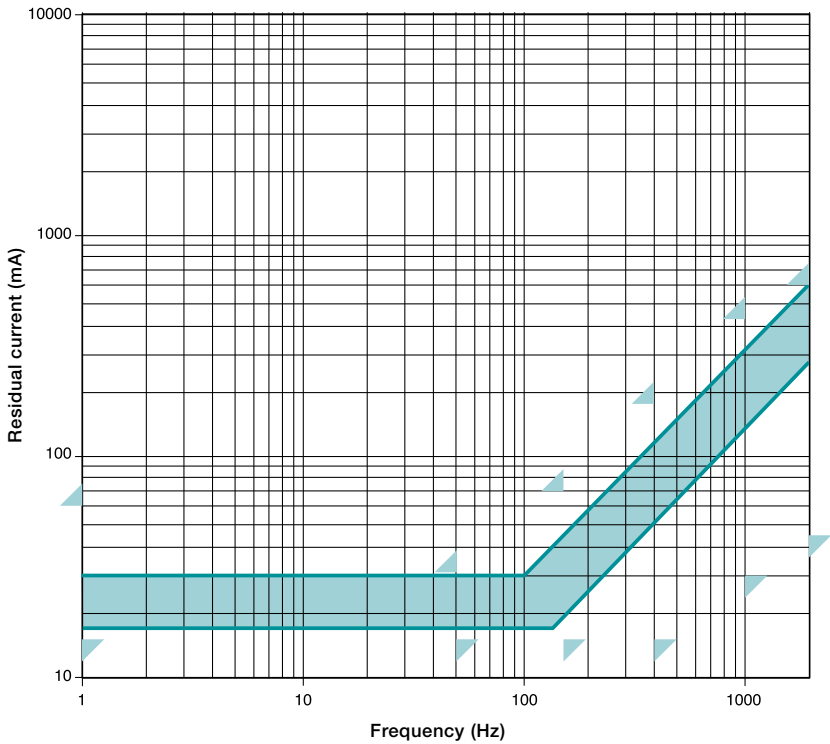


RCDs technical details

Type B RCDs

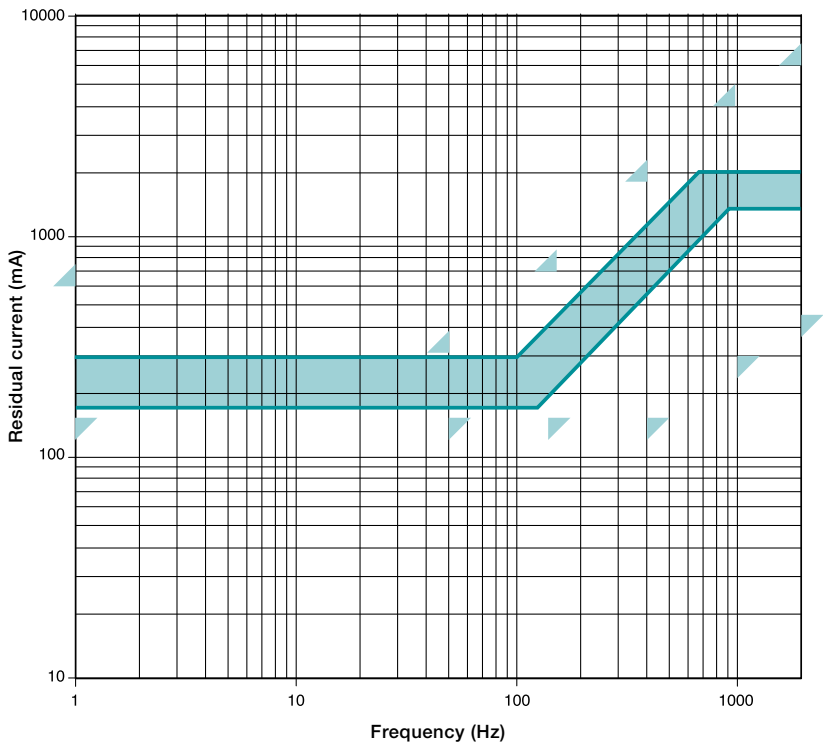
F200 B high ratings

F204 B 30 mA



Upper/Lowerlimit
acc. to the Standard

F204 B 300 mA

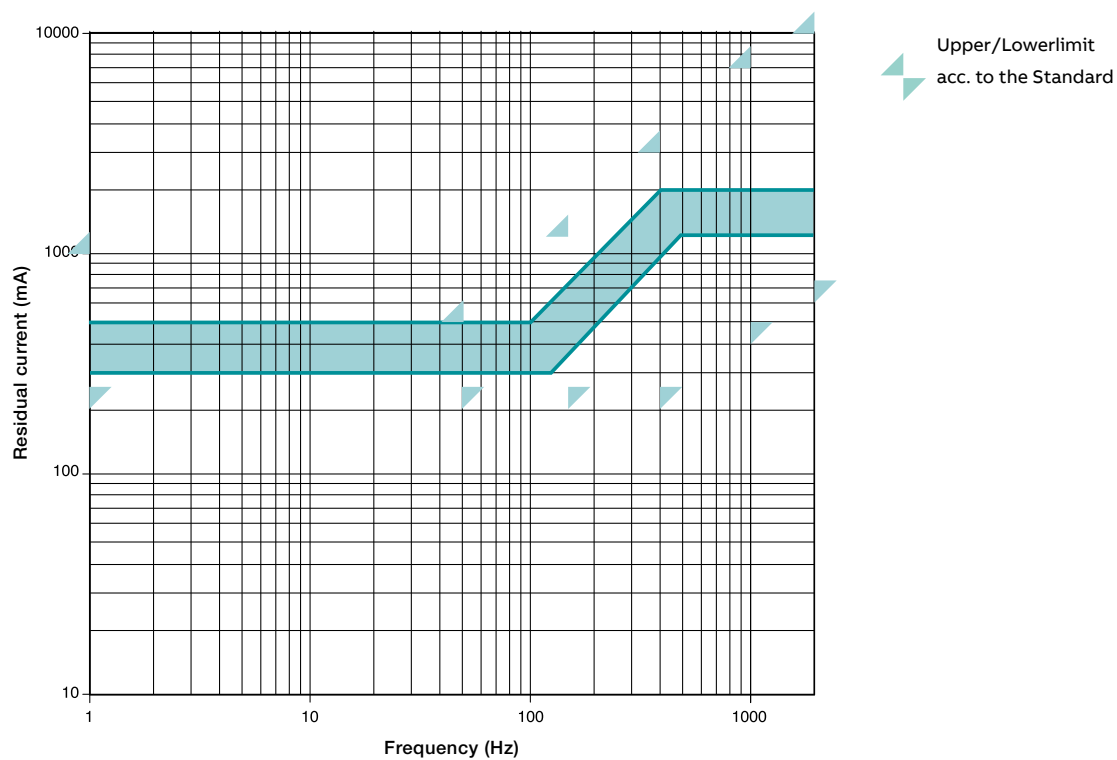


Upper/Lowerlimit
acc. to the Standard

RCDs technical details

Type B RCDs

F204 B 500 mA

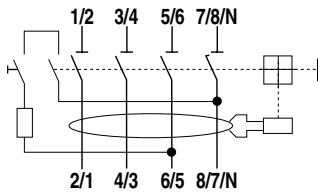


RCDs technical details

Use of 4P RCCBs in 3-phase system without neutral pole

Use of a 4P RCCB in a 3-phase circuit without neutral

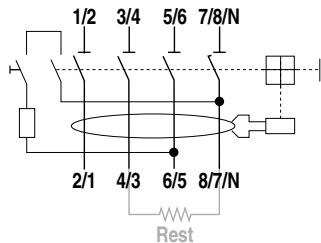
The test button circuit of these RCCBs 4P F 200, regardless of the rating, is wired inside the device between terminal 5/6 and 7/8/N as indicated below, and has been sized for an operating voltage between 110V (170V for the 30mA version according to EN standard) and 254 V (110 and 277 V according to UL 1053).



In case of installation in a 3 phase circuit without neutral, if the concatenate voltage is between 110V (170V for the 30mA version according to EN standard) and 254 V (277 V according to UL 1053) for the correct working of the test button there are two possible solutions:

- 1) To connect the 3 phases to the terminals 3/4 5/6 7/8/N and the terminals 4/3 6/5 8/7/N (supply and load side respectively)
- 2) To connect the 3 phases normally (supply to terminals 1/2 3/4 5/6 and load to terminals 2/1 4/3 6/5) and to bridge terminal 1/2 and 7/8/N in order to bring to the terminal 7/8/N the potential of the first phase. In this way the test button is supplied with the phases' concatenate voltage.

If the circuit is supplied with a concatenate voltage higher than 254 V, as in the typical case of 3 phase net with concatenate voltage of 400 V - or 480 V according to UL 1053 - (and voltage between phase and neutral of 230 V or 277 V according to UL 1053), it is not possible to use these connections because the circuit of the test button will be supplied at 400 V and could be damaged by this voltage.



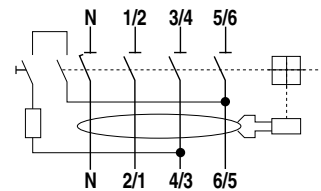
In order to allow the correct operation of the test button also in 3 phase nets at 400 V - 480 V according to UL 1053 - (concatenate voltage) it is necessary to connect normally the phases (supply to terminals 1/2 3/4 5/6 and load to terminals 2/1 4/3 6/5) and to bridge terminal 4/3 and 8/7/N by mean of an electric resistance as indicated above.

In this way the test button circuit is fed at 400 V - 480 V according to UL 1053 - but for example in an IEC compliant RCCB with $I_{\Delta n}=0.03$ A there will be the $R_{est}=3.3$ kOhm resistance in series to the test circuit resistance. R_{est} will cause a voltage drop that leaves in the test circuit a voltage less than 254 V - 277 V according to UL 1053. R_{est} resistance must have a power loss higher than 4 W.

In the normal operation of the RCCB (test circuit opened) the R_{est} resistance is not fed so it does not cause any power loss.

The solution RCCBs with neutral pole on left side

The test button circuit of these RCCBs is wired inside the device between terminal 3/4 and 5/6 as indicated below, and it has been sized for an operating voltage between 195 V and 440 V - 480 V. In case of a three phase system without neutral with concatenate voltage between phases of 230 V or 400 V - 277 V or 480 V - it is enough to connect the 3 phases normally (supply to terminals 1/2 3/4 5/6 and load to terminals 2/1 4/3 6/5) without any bridge.



| $I_{\Delta n}$ [A] | R_{est} [Ω] |
|--------------------|------------------------|
| 0.03 | 3300* |
| 0.03 | 3900 |
| 0.1 | 1000 |
| 0.3 | 330 |
| 0.5 | 200 |

* Only for IEC range and 125 A right-sided ratings

RCDs technical details

Operating voltage of test button

Operating voltage of test button

The operation of RCDs depends on the maximum and minimum operating voltage of the test button.



This symbol represents
the circuit of test button

Maximum and minimum operating voltage of DS201 test button

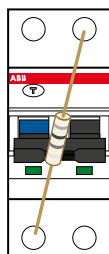
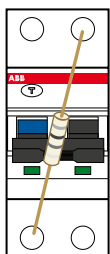
DS201

$U_t = 110-264 \text{ V}$;

for 30mA: $U_t = 170-264 \text{ V}$

DS201 M 110V

$U_t = 110-264 \text{ V}$



Between the two terminals
there is a rated voltage of
110-264 V

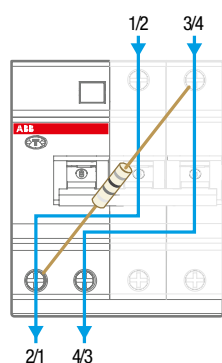
Maximum and minimum operating voltage of DS 200 and DDA 200 test button

DDA 202 and DS 202

$I_n = 25-40 \text{ A}$

$U_t = 110 - 254 \text{ V}$;

for 30mA: $U_t = 170-254 \text{ V}$

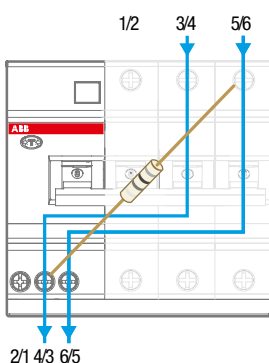


DDA 203 and DS 203

$I_n = 25-40 \text{ A}$

$U_t = 195 - 440 \text{ V}$;

for 30mA: $U_t = 300-440 \text{ V}$

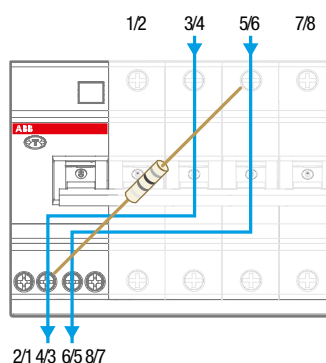


DDA 204 and DS 204

$I_n = 25-40 \text{ A}$

$U_t = 195 - 440 \text{ V}$;

for 30mA: $U_t = 300-440 \text{ V}$

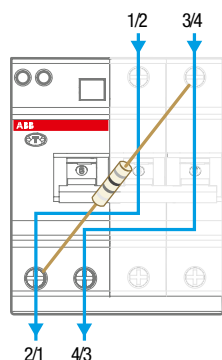


DDA 202 and DS 202

$I_n = 63 \text{ A}$

$U_t = 110 - 254 \text{ V}$;

for 30mA: $U_t = 170-254 \text{ V}$

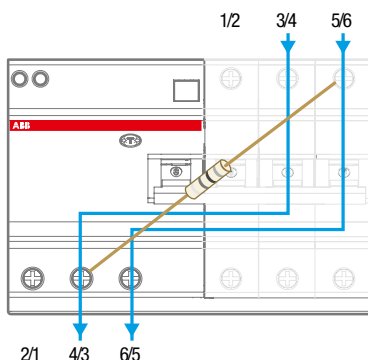


DDA 203 and DS 203

$I_n = 63 \text{ A}$

$U_t = 195 - 440 \text{ V}$;

for 30mA: $U_t = 300-440 \text{ V}$

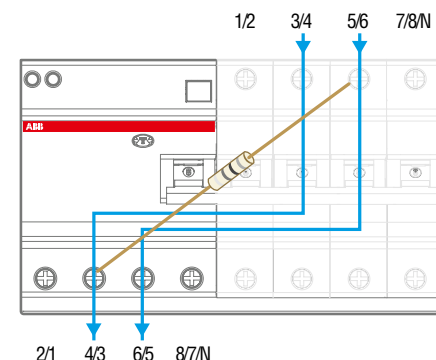


DDA 204 and DS 204

$I_n = 63 \text{ A}$

$U_t = 195 - 440 \text{ V}$;

for 30mA: $U_t = 300-440 \text{ V}$

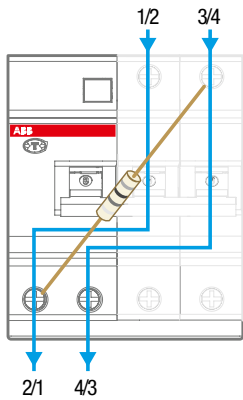


RCDs technical details

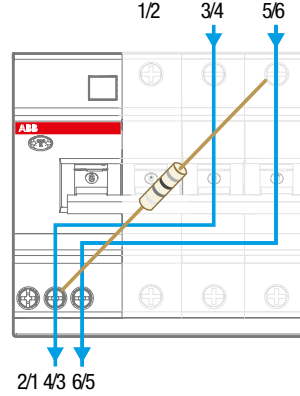
Operating voltage of test button

Maximum and minimum operating voltage of DDA 200, special version 110 V

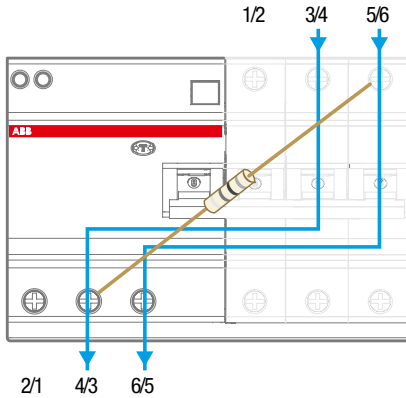
DDA 202 110 V
 $I_n = 25-40-63$ A
 $U_t = 110-254$ V



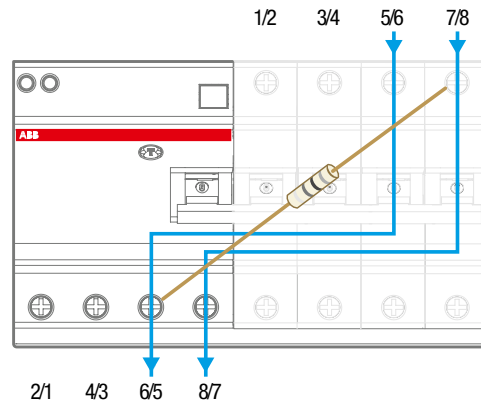
DDA 203 110 V
 $I_n = 40$ A
 $U_t = 110-254$ V



DDA 203 110 V
 $I_n = 63$ A
 $U_t = 110-254$ V

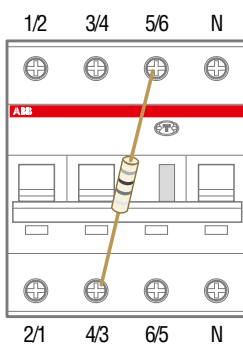


DDA 204 110 V
 $I_n = 63$ A
 $U_t = 110-254$ V



Maximum and minimum operating voltage of the DS203NC

DS203NC
 $U_t = 195-440$ V (300-440 V for 30 mA)

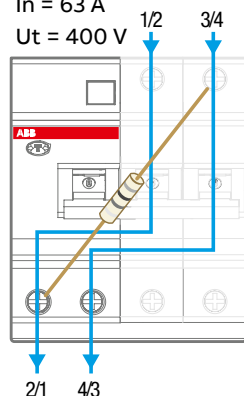


RCDs technical details

Operating voltage of test button

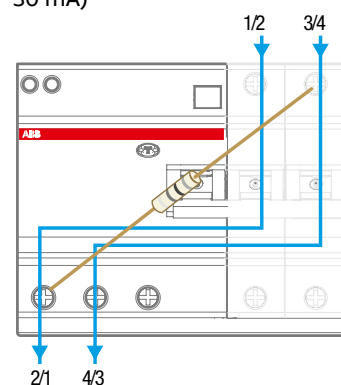
Maximum and minimum operating voltage of DDA 200, special version 400 V

DDA 202
In = 63 A
Ut = 400 V

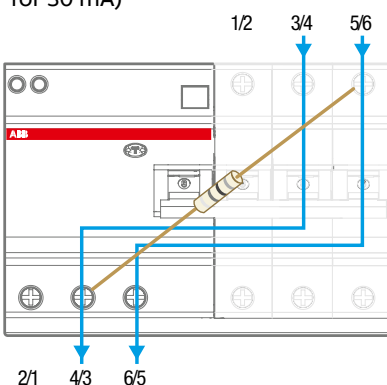


Maximum and minimum operating voltage of DDA 200 B type test button

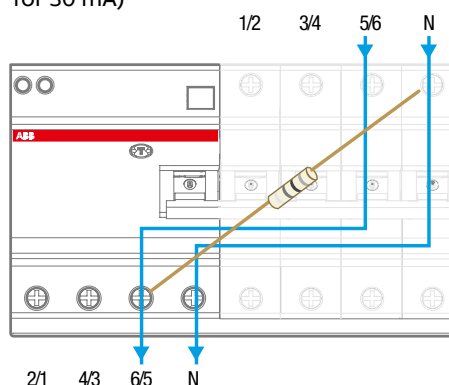
DDA 202 B
In = 63 A
Ut=195-254 V (170-254 V for 30 mA)



DDA 203 B
In = 63 A
Ut=310-440 V (300-440 V for 30 mA)

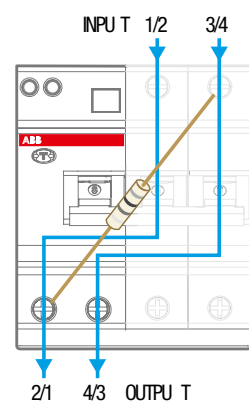


DDA 204 B
In = 63 A
Ut=195-254 V (300-440 V for 30 mA)

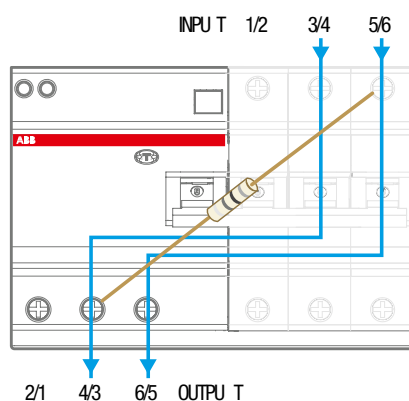


Maximum and minimum operating voltage of DDA 200 AE test button

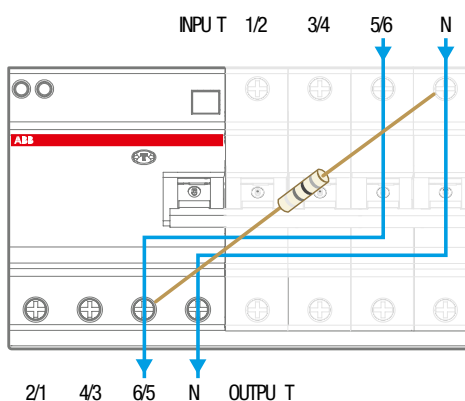
DDA 202 AE
In = 63 A
Ut = 184-264 V



DDA 203 AE
In = 63 A
Ut = 310-440 V



DDA 204 AE
In = 63 A
Ut = 184-264 V



RCDs technical details

Operating voltage of test button

Maximum and minimum operating voltage of F 200 test button

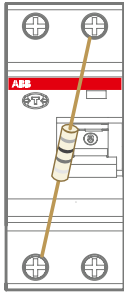
F 202

$I_n \leq 100 \text{ A}$

$U_t = 110 - 254 \text{ V};$

for $30\text{mA}^{\text{①}}$: $U_t = 170 - 254 \text{ V}$

1/2 3/4



2/1 4/3

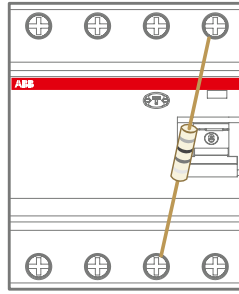
F 204 neutral on right

$I_n \leq 100 \text{ A}$

$U_t = 110 - 254 \text{ V};$

for $30\text{mA}^{\text{①}}$: $U_t = 170 - 254 \text{ V}$

1/2 3/4 5/6 7/8/N



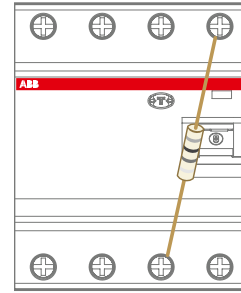
2/1 4/3 6/5 8/7/N

F 204 neutral on left

$I_n \leq 100 \text{ A}$

$U_t = 195 - 440 \text{ V};$ for 30mA : $U_t = 250 - 440 \text{ V}$

R S T
7/8/N 1/2 3/4 5/6



8/7/N 2/1 4/3 6/5
R S T

For use in 3-phases circuit without neutral at 400 V it is possible to connect the three phases R, S and T like in the figure.

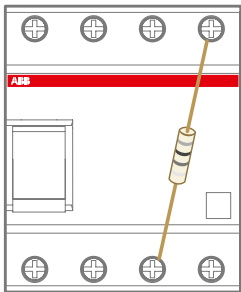
F 204 neutral on right

$I_n = 125 \text{ A}$

$U_t = 185 - 440 \text{ V};$

for $30\text{mA}^{\text{①}}$: $U_t = 150 - 250 \text{ V}$

1/2 3/4 5/6 7/8/N



2/1 4/3 6/5 8/7/N

2/CS C400436F 02/02

① Only for versions with marking according to EN 61008-1; EN 61008-2-1

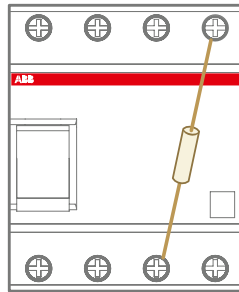
F 204 neutral on left

$I_n = 125 \text{ A}$

$U_t = 185 - 440 \text{ V}$

for 30mA : $U_t = 250 - 440 \text{ V}$

7/8/N 1/2 3/4 5/6



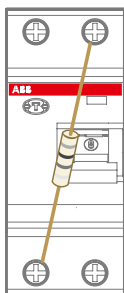
8/7/N 2/1 4/3 6/5

F202 110V

$I_n \leq 100 \text{ A}$

$U_t = 110 - 254 \text{ V}$

1/2 3/4



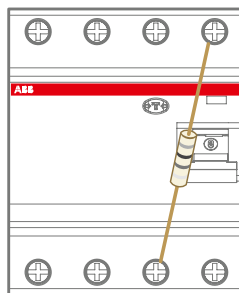
2/1 4/3

F 204 110V

$I_n \leq 100 \text{ A}$

$U_t = 110 - 254 \text{ V}$

1/2 3/4 5/6 7/8/N



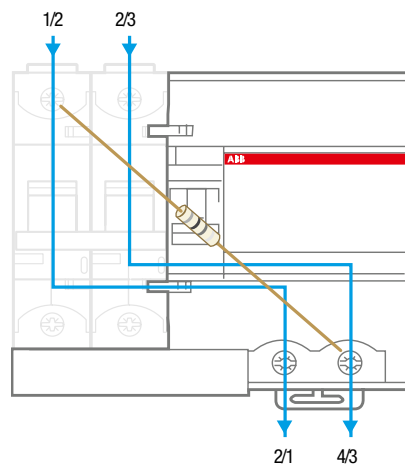
2/1 4/3 6/5 8/7/N

RCDs technical details

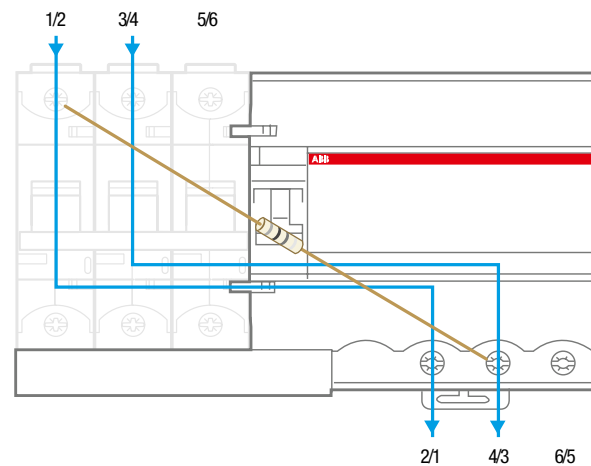
Operating voltage of test button

Maximum and minimum operating voltage of DDA 800 and DS800 test button

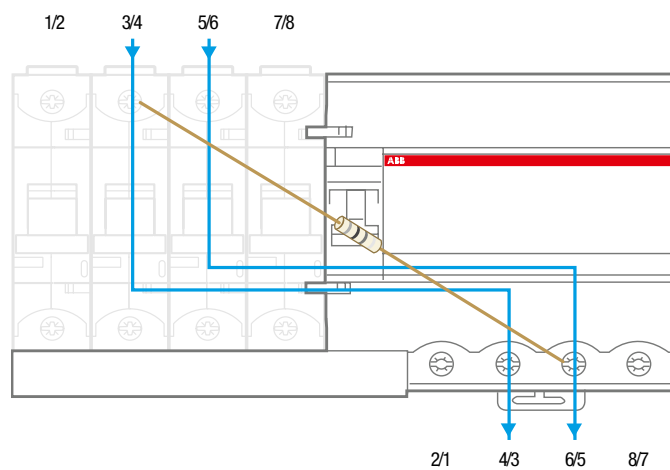
DDA 802
DS802
 $I_N \leq 125 \text{ A}$
 $U_t = 195\text{-}690 \text{ V}$



DDA 803
DS803
 $I_N \leq 125 \text{ A}$
 $U_t = 195\text{-}690 \text{ V}$



DDA 804
DS804
 $I_N \leq 125 \text{ A}$
 $U_t = 195\text{-}690 \text{ V}$

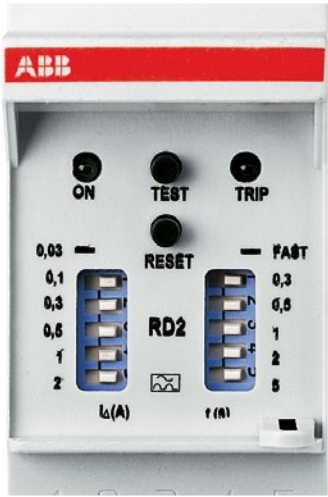


RCDs technical details

RD2 residual current relays

RD2 residual current monitors

They operate combined with appropriate toroidal transformers (in 9 different diameters).
The relay can command the tripping of the protection circuit-breaker release, thus opening the circuit.
According to the IEC 62020 Standard, these relays are “A Type”. They are sensitive to leakage sinusoidal currents and to leakage pulsating currents with direct components.
Thus they can be defined as “A type”.



More technical characteristics

| | | | |
|--|------|--------------------|-----------|
| Calibration tolerances | | - sensitivity | 75% ± 10% |
| | | - time | 75% ± 10% |
| Power consumption | [W] | 0.45 at 48 V AC/DC | |
| | | 1.2 at 110 V AC/DC | |
| | | 3.4 at 230 V AC | |
| | | 11 at 400 V AC | |
| Dielectric test voltage at ind. freq. for 1 min. | [kV] | 2.5 | |
| Max. peak current with 8/20 μs wave | [A] | 5000 | |
| Installation position | | any | |
| Protection degree | | IP20 | |

RCDs technical details

RD3 residual current relays

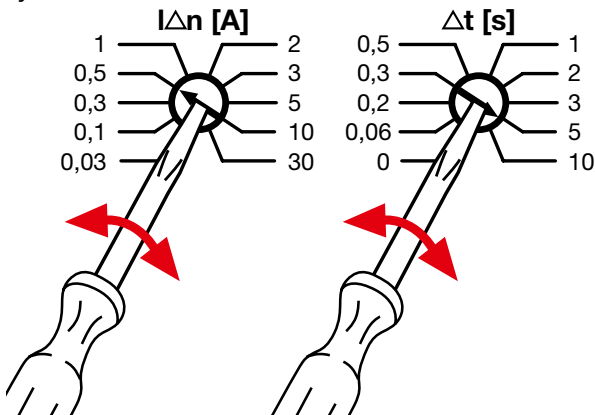
RD3 electronic residual current relay

RD3 is a residual current device that in combination with a toroidal transformer is able to detect and evaluate earth fault current. If used in combination with a shunt-trip or undervoltage release, it can realize the opening of a circuit breaker ensuring earth leakage current protection.



Setting of residual operating current and trip time delay.

Using the rotary selectors on the front of the device, it is possible to adjust the residual operating current and the trip time delay.



Adjustment of residual operating current (IΔn [A]) and trip time delay (Δt [s]).

Main features

| | Pre-alarm | Autoreset | Fail-safe |
|------|--|---|---|
| | Placing the dip-switch in the ON position enables the pre-alarm function: the output contact on terminals 7 8 9 will change state in the event of a residual current exceeding 60% IΔ. | Placing the dip-switch in the ON position enables the automatic Reset function: the Relay OUTPUT contacts revert to their original state once the fault condition ceases. | Built into the device (positive safety). In case of absence of supply to the device RD3 the output contact on terminals 10 11 12 will change state as shown in the figures. |
| RD3 | | | ■ |
| RD3M | ■ | | ■ |
| RD3P | ■ | ■ | ■ |

RCDs technical details

RD3 residual current relays

Indicators

RD3

RD3M

RD3P



Stand by



FAULT



Pre Alarm

FAULT



IΔ%

FAULT

Fault



Pre Alarm

FAULT



Pre Alarm

FAULT



IΔ%



Absent connection
with toroid



Pre Alarm

FAULT

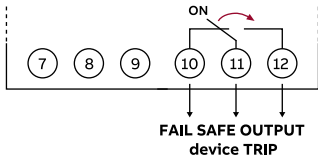


IΔ%

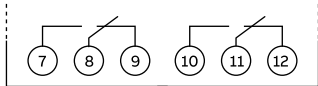


Fail-safe - RD3, RD3M, RD3P

Integrated in the device (positive safety). In case of power supply voltage failure of RD3 device, the output contacts numbered 10 11 12 will switch as shown below.

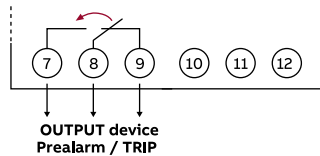


Contacts when the
device is OFF



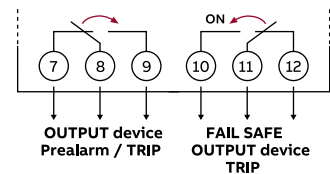
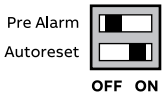
Pre-alarm - RD3P, RD3M

When the dip-switch is set to ON, the prealarm function is activated: the output contact marked by the 7 8 9 terminals will switch in case of a fault detected by the device exceeding 60% IΔ.



Autoreset - RD3P

When the dip-switch is set to ON, the automatic Reset function is activated: the output device contact will return to stand-by when the fault condition has been resolved.



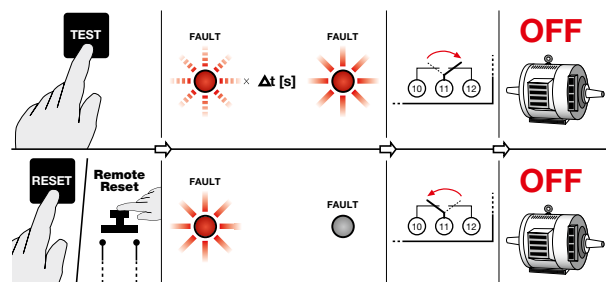
RCDs technical details

RD3 residual current relays

Test

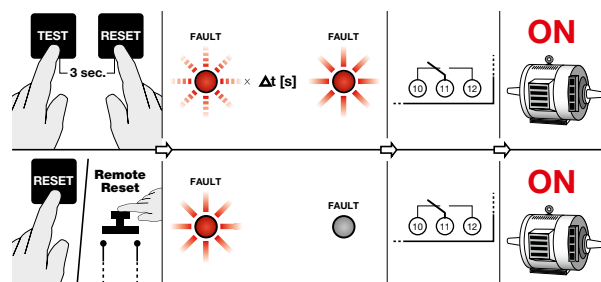
To perform the relay test, press the button on the front. The relay can be reset via the front button or a remote button, as shown in the figure:

Test



On RD3P version, a no trip test can also be performed by simultaneously pressing the front test and reset buttons for 3 seconds. In this case, the output contacts will not switch, as shown in the figure below:

Test NO TRIP - RD3P



Associated circuit breakers (and relative releasers)

- Tmax range from T1 to T5, In up to 630 A, Ue up to 690 V, with UVR undervoltage release or SOR shunt opening release
- XT range from XT1 to XT4, In up to 250 A, Ue up to 690 V, with UVR undervoltage release or SOR shunt opening release
- pro M Compact S200 range with In up to 63 A, Ue up to 440 V, with S 2C-A shunt trip or S 2C-UA undervoltage release

Tripping time (RD3 output relay switching time), cumulative time (with associate circuit breakers), non-trip time limit:

RD3: tripping time. cumulative time. non intervention time

| Time selection | 1Δn | | 2 Δn | | 5 Δn | | 10 Δn | |
|----------------|---------------|--|---------------|--|---------------|--|---------------|--|
| | tripping time | cumulative time with associate circuit breaker | tripping time | cumulative time with associate circuit breaker | tripping time | cumulative time with associate circuit breaker | tripping time | cumulative time with associate circuit breaker |
| Dt [s] | ≤ [s] | ≤ [s] | ≤ [s] | ≤ [s] | ≤ [s] | ≤ [s] | ≤ [s] | ≤ [s] |
| 0 | 0.2 | 0.3 | 0.12 | 0.15 | 0.02 | 0.04 | 0.02 | 0.04 |
| 0.06 | 0.3 | 0.5 | 0.17 | 0.2 | 0.09 | 0.15 | 0.09 | 0.15 |
| 0.2 | 0.45 | 0.5 | 0.45 | 0.5 | 0.45 | 0.5 | 0.45 | 0.5 |
| 0.3 | 0.55 | 0.6 | 0.55 | 0.6 | 0.55 | 0.6 | 0.55 | 0.6 |
| 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 1 | 1.2 | - | 1.2 | - | 1.2 | - | 1.2 | - |
| 2 | 2.2 | - | 2.2 | - | 2.2 | - | 2.2 | - |
| 3 | 3.2 | - | 3.2 | - | 3.2 | - | 3.2 | - |
| 5 | 5.2 | - | 5.2 | - | 5.2 | - | 5.2 | - |
| 10 | 10.2 | - | 10.2 | - | 10.2 | - | 10.2 | - |

RCDs technical details

ELR front panel residual current relays

ELR: tripping time, cumulative time, non intervention time

| Time selection Δt [s] | $I\Delta n$ | $2 I\Delta n$ | | $5 I\Delta n$ | | $10 I\Delta n$ | |
|-------------------------------------|--------------------------------|--|------------------------------|--------------------------------|--|--------------------------------|--|
| | tripping time \leq [s] | cumulative time with associate circuit breaker \leq [s] | non-intervention time [s] | tripping time \leq [s] | cumulative time with associate circuit breaker \leq [s] | tripping time \leq [s] | cumulative time with associate circuit breaker \leq [s] |
| 0 | 0.04 | 0.3 | - | 0.025 | 0.15 | 0.02 | 0.04 |
| 0.06 | 0.1 | 0.5 | 0.06 | 0.08 | 0.2 | 0.08 | 0.15 |
| 0.2 | 0.16 +15% | - | 0.2 | 0.15 +15% | - | 0.15 +15% | - |
| 0.3 | 0.3 +15% | - | 0.3 | 0.3 +15% | - | 0.3 +15% | - |
| 0.5 | 0.5 +15% | - | 0.5 | 0.5 +15% | - | 0.5 +15% | - |
| 1 | 1 +15% | - | 1 | 1 +15% | - | 1 +15% | - |
| 2 | 2 +15% | - | 2 | 2 +15% | - | 2 +15% | - |
| 3 | 3 +15% | - | 3 | 3 +15% | - | 3 +15% | - |
| 5 | 5 +15% | - | 5 | 5 +15% | - | 5 +15% | - |

RCDs technical details

Toroidal transformers

Toroidal transformers

The choice of toroidal transformers is made according to the useful diameter and the minimum value of the leakage current to be detected.

Technical features of the toroidal transformers

| Type | Toroid useful diameter [mm] | Max rated current [A] ⁽¹⁾ | Min measurable current [mA] | Maximum capacity [A] |
|---------|--------------------------------|---|--------------------------------|-------------------------|
| TRM | 29 | 65 | 30 | 160 |
| TR1 | 35 | 75 | 30 | 250 |
| TR2 | 60 | 85 | 30 | 400 |
| TR3 | 80 | 160 | 100 | 800 |
| TR4 | 110 | 250 | 100 | 1250 |
| TR4/A | 110 | 250 | 300 | 1250 |
| TR160 | 160 | 400 | 300 | 2000 |
| TR160/A | 160 | 400 | 500 | 2000 |
| TR5 | 210 | 630 | 300 | 3200 |
| TR5/A | 210 | 630 | 500 | 3200 |
| TR6 | 300 | 630 | 500 | 5000 |
| TR6/A | 300 | 630 | 1000 | 5000 |

(1) Toroidal transformers selection for use with ELR/RD3 according to IEC/ EN 60947-2 Annex M in combination with MCBs S200 range and MCCBs Tmax range up to T5 (630 A) and XT range up to XT4 (250 A)

RCDs technical details

Toroidal transformers

Technical characteristics

| | | TRM | TR1 | TR2 | TR3 | TR4 | TR4A | TR160 | TR160A | TR5 | TR5A | TR6 | TR6A |
|--|----------|---|--------|--------|--------|--------|------|--------|--------|--------|------|--------|------|
| Core | | closed | closed | closed | closed | closed | open | closed | open | closed | open | closed | open |
| Available internal diameter | [mm] | 29 | 35 | 60 | 80 | 110 | 110 | 160 | 160 | 210 | 210 | 300 | 300 |
| Weight | [kg] | 0.17 | 0.22 | 0.28 | 0.45 | 0.52 | 0.6 | 1.35 | 1.6 | 1.45 | 1.85 | 2.1 | 2.3 |
| Minimum measurable current | [mA] | 30 | 30 | 30 | 100 | 100 | 300 | 300 | 500 | 300 | 500 | 500 | 1000 |
| Installation position | | Any | | | | | | | | | | | |
| Operating temperature | [°C] | -10...+70 | | | | | | | | | | | |
| Storage temperature | [°C] | -20...+80 | | | | | | | | | | | |
| Transformation ratio | | 500/1 | | | | | | | | | | | |
| Dielectric test voltage at industrial freq. for 1 min. | [kV] | 2.5 | | | | | | | | | | | |
| Max. insulating voltage | [V a.c.] | 1000 | | | | | | | | | | | |
| Max. thermal overload | [kA] | 40/1 sec. | | | | | | | | | | | |
| Connections | | Screw terminal boards, max. section 2.5 mm ² | | | | | | | | | | | |
| Protection degree | | IP20 | | | | | | | | | | | |

Generality

They must be mounted with residual current monitors upstream the lines or loads to be protected; all active conductors (phases and neutral) of single-phase as well as of three-phases lines must pass through them.

In this way these devices perform the vector sum of line currents detecting the possible homopolar differential currents that leak to earth: their core of sheet iron has high magnetic properties that allow to detect even very low leakage currents.

The choice of a toroidal transformer depends on the conductor or on the bar to be used.

It is suggested to use the open versions in case of revamping or upgrading of an existing installation.

Installation

All active conductors can be introduced in the toroidal transformers without the need of respecting any specific sense of introduction (P1-P2 or P2-P1). The output signal

must be picked up from terminals 1 (S1) and 2 (S2) and connected to the residual current monitor, while terminals 3 and 4 must be connected to the test output of those relays of FPP range with this function. With RD2 they must remain disconnected. For this connection it is better to use twisted or shielded cables, possibly far from busbars. The minimum recommended section of connection cables should have a maximum resistance of 3 Ω; anyway consider a maximum length of connection of 20 m for 0.5 mm² and of 100 m for 2.5 mm².

For versions with openable core it is necessary to control that the contact surface of the two semi-cores is clean, that bolts are tight and that connection cables connections on both sides are intact.

Connection cables with metallic shielding or armor must be earthed downstream the toroidal transformer; if they run within the transformer they must be earthed in the opposite direction.