Low-voltage products and systems
Global offering
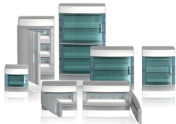
ABB now offers more components for control panel applications — from market leading circuit breakers, switches and DIN rail products to wire and cable management — a complete solution from one global supplier.
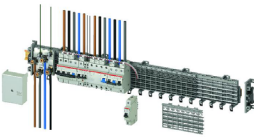
Panel builders partner with ABB to be more competitive and lower their costs using our high quality electrical control, protection and wiring components. With ABB's highly functional and easy to deploy products, you can reduce panel size by up to 30% and save costs with easy to install products.

Whether you need to protect against environmental hazards such as corrosive agents or maintain a sterile environment, ABB can help you meet local and global regulations. And with ABB's panel layout software and automation machinery, you will be able to meet tight project schedules and reduce installation cost.

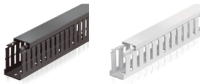| Product/Offering	Benefits & Features
Enclosures System pro *E*	ABB enclosures are ideal for single family houses, multiple dwellings, commercial buildings, infrastructures and industrial applications in compliance with international standards and community norms.
Main Distribution Boards System pro *E* power	System pro *E* power is ABB's solution for main distribution switchgears with rated current up to 6300A and short-circuit current up to 120kV. Meets all plant requirements depending on the type of installation, required degree of protection, and the electrical and mechanical specifications. ABB provides complete solutions for main electric power distribution in infrastructure and industries in accordance with the regulatory framework. In addition, System pro *E* power guarantees full compatibility with all other ABB products.
Sub distribution Boards System pro *E* energy - Compact Distribution	The compact distribution boards, stand out due to it flexibility and build-up speed which will support the users in their daily tasks. Be it for commercial, industrial or domestic uses — this broad range of products offers a solution to any type of mounting — from flush-mounting and wall-mounting up to hollow-wall mounting applications. Depending on the version (Distribution/small automation/media board), degrees of protection between IP31 and IP43, flush and wall, all are available.
System pro *E* energy - TwinLine	With the TwinLine system, another benchmark in the field of modern power distribution is set. TwinLine cna be delivered as a welded system, TwinLine N 55 (IP55) and as flatpack system, TwinLine S 43 (IP43). All have been tested according to IEC 61439 and DIN EN 61439 Parts 1, 2 and 3. Continuity is the guiding principle for these new wall-mounted and stand-alone cabinets for distribution board assembly — from their high degree of protection, to their ease of installation, to a portfolio that can meet all requirements in the field. Systems intelligence comes as standard with TwinLine because in combination with System pro *E* combi — CombiLine modules, TwinLine offers unlimited possibilities for the internal configuration.
Interior fittings System pro *E* combi - CombiLine	CombiLine is a the simple, quick and safe modular distribution panel system for all sub-distribution cabinets up to 850 A. Its sophisticated quick mounting system, makes completion of modular distribution panels an effortless process. CombiLine modules are available with plastic covers (CombiLin N) and will fit the Compact Distribution enclosures as well as the TwinLine N 55 range, CombiLine S, with its metal covers will fit the new TwinLine S range of enclosures. CombiLine Modules can be delivered as completely pre-assembled (with or without components), as single loose parts or flatpack. Thanks to the customer feedbacks, CombiLine is undergone to a continuos enhancement and range extention, to suit every application in electrical distribution.

Power and productivity
for a better world™

ABB

Product/Offering	Benefits & Features
Consumer Units System pro *E* comfort	System pro *E* comfort is ABB's series of consumer units where versatility and performance are combined with an elegant design. Designed to reduce cabling times, as well as allowing the total integration of several kinds of devices for DIN-Rail or to be installed on a mounting plate or on blind front panels. The wide range of sizes and versions makes System pro *E* comfort one of the most complete ranges of consumer units to complete ABB's offer for protection, control and monitoring.
Cable Distribution Cabinets and Board	Kabeldon Cable Distribution Cabinets fit well in most environments. They come in various designs and sizes, and perform well even under very tough conditions. At the same time, they satisfy current requirements for long life with undiminished safety and low operating and maintenance costs.
Control and Automation Boards System pro *E* control	System pro *E* control is ABB's range of metal structures for industrial automation and controlgear switchboards that conforms to several international standard such as the IEC 62208 and to the new IEC 61439-1-2. The structures IS2 are also seismic-proof according the IEEE Std 693 and tested against vibrations. Their high mechanical performances, the sturdiness and the loading capacity are the market benchmark and allow installation on-board machines, in production lines, Motor Control center and in every typical 19" Rack applications. Furthermore, the new range of System pro *E* control made in stainless steel AISI304 is perfect for outdoor and for environments where high level of hygiene is required.
Control and Automation Boards System pro *E* control - GEMINI	GEMINI are thermoplastic enclosures made through co-injection technology guaranteeing the highest level of mechanical protection against impacts (IK10) without the need to add hardening substances (fiber glass). Gemini keeps its mechanical characteristics in the long term and thanks to IP66 rating and to the high UV resistance, it's perfect for any outdoor use and PV/solar applications. GEMINI can easilly host DIN rail devices (up to 216 poles), Tmax (up to T5) and Tmax XT MCCBs. A new GEMINI version, UL listed, is available.
DC String combiners boxes (plug-and-play)	ABB has developed, using Gemini and EUROPA65 PV enclosures, a family of prewired and certified String combiners boxes to meet the needs of any plant types: from single string installation in residential applications to large-scale solar fields. The whole range is ready to be connected to the solar electrical installation (plug and play) and is available with a high level of customization.
Molded Case Circuit Breaker	ABB's molded case circuit breakers guarantee an extremely high performance level while being progressively smaller in size, simple to install and able to provide increasingly better safety. Our Tmax XT range is complete with four frame sizes: XT1, XT2 up to 160A, and XT3, XT4 up to 250A. Our Tmax T range completes the offering up to 3200A.
Air Circuit Breakers	ABB Emax2 is the new benchmark of air circuit-breakers that not only monitors power, but has evolved into a true power manager. It is offered in frame sizes up to 6300A with exclusive integrated functions such as the Ekip power controller, generator protection and network analyzer functions. Emax2 is the only breaker that protects electrical circuits and also reduces energy consumption based on the user's needs, thereby leading to massive reductions in energy waste. Emax2 contains the perfect blend of control, connectivity, safety and performance.
Arc Guard TVOC-2	The Arc Guard TVOC-2 builds on the well-appreciated TVOC design and offers unmatched arc monitoring. With over 35 years of experience, Arc Guard System ™ has become an industry standard in several key markets, helping to protect personnel and businesses around the world. The TVOC-2 is an optical detection system that together with an external breaker can limit the damage done to personnel and equipment in case of an arc accident happening.

Product/Offering	Benefits & Features
AC Switch Disconnectors	The OT range of switch disconnectors from 16 to 4000A is suitable for diverse applications such as machinery, power distribution and motor control centers. Thanks to a modular design, OT switches are available in different pole configurations. Mounting is possible in any direction and a wide offering of accessories is available.
DC Switch Disconnectors	The OTDC range of switch disconnectors from 16 to 1500A is specially designed for DC applications. OTDC switches have a compact design, high energy efficiency, and reliable breaking power at all current levels. ABB's range includes switches for installations with 1500 VDC and for simultaneous switching of up to 3 strings.
Transfer Switches	ABB offers a wide variety of transfer switches from 16 to 3200A, including switches for manual, remote or automatic transfer of loads from one source to another. The switches are designed to be virtually maintenance free across their entire extended lifespan and offer safe and reliable change-over performance.
Enclosed Switches	Our range of enclosed switches is one of the most complete in the market. Whether you need a main disconnect or a safety switch, you can always find a high quality product that suits your application. Our offering includes enclosed switch disconnectors, switch fuses and safety switches. The enclosures are made of plastic, sheet steel, aluminum or stainless steel.
Cam Switches	OC and OL cam switches are suitable for even the most demanding applications. A versatile selection of handles, mounting options, and accessories make it easy to create the perfect solution. With the online configurators, Camweb and Camweb2, users can design their own cam switch with confidence.
Fusegear	ABB Fusegear products are designed for an easy, safe and reliable installation and operation in substations, Cable Distribution Cabinets (CDC), distribution boards in Compact Secondary Substations (CSS) and distribution boards in industrial, commercial and residential applications.
Switch Fuses	OS switch fuses range from 20 to 1250A and are suitable for different types of fuses: DIN, BS, NFC, J and L. OS switch fuses have a modular design and are available in different pole configurations. ABB offers ready and tested type 2 coordination tables for easy and fast selection of motor control devices.
EasyLine XLP, Fuse Switch Disconnectors	EasyLine range of fuse disconnectors ensures high protection and reliable operation in critical power applications, distribution boards, switchboards, and capacitor banks. A wide range of cable terminals and snap-on accessories make the installation easy and fast. EasyLine can be fitted into different distribution systems by means of busbar adapters.
InLine II	ABB is proud to introduce the latest technology of fuse switch disconnectors to ensure the best stability and safety in the power distribution network. InLine II is available in two different versions: ZLBM for space saving and ZHBM for easy integration of current transformers at the back. A wide variety of accessories and cable terminals — bolt or V-clamps — enables a flexible installation. The degree of protection is IP30 (front). InLine II has been designed for an easy and safe replacement of NH fuse links. InLine II supports a high level of stability in the electrical distribution network, with the aid of intelligent communication.
SlimLine XR, Switch Disconnects or Fuse	The SlimLine XR meets increasing demands in the industry for safe and reliable energy distribution. Thanks to the unique contact design and compact size, the installation is safe, fast and easy. For remote operation and monitoring, SlimLine XR is available with an integrated motor, electronic fuse monitor (EFM) or the new integrated energy monitoring device ITS2.

Product/Offering	Benefits & Features
Miniature Circuit Breakers (MCBs)	Miniature Circuit Breakers protect installations against overload and short-circuit, guaranteeing reliability and safety for operations. The System pro M compact S200 series are current limiting overcurrent protective devices. They have two different tripping mechanisms, the delayed thermal tripping mechanism for overload protection and the magnetic tripping mechanism for short circuit protection.
Residual Current Devices (RCDs)	Residual Current Devices protect people and equipment from the risk of fire. We offer a comprehensive range to cover all the applications in residential, commercial and industrial segments. ABB can offer all the RCD types according to IEC international standards like RCCBs, RCBOs, RCD-blocks, Earth Leakage Relays DIN-Rail and front panels.
Surge Protective Devices (SPDs)	The OVR range is designed to protect electrical systems and equipment against transitory surges and impulses caused by lightning and operations on the electrical grid.
Modular DIN-Rail Components (MDRCs)	Modular DIN-Rail Components, or MDRC, is a range of components that provide all functions to complete the offering of an electric switchboard (other than line protection and residual current protection) such as measuring, controlling and commanding. They are plugged on a standard DIN-Rail in just one click.
SMISSLINE TP	SMISSLINE TP is the complete line protection solution for applications with high availability, easy and fast installation and maintenance requirements. Being the world's first plug-gable socket system, SMISSLINE TP ensures that load-free devices and components can be snapped on and off under voltage without the need for additional personal protective equipment to guard against electrical hazards. That opens up completely new prospects for you when it comes to installation, operation and flexibility.
Electricity Meters	Managing electrical supply is a priority. Without measuring usage, it is hard to determine efficiency. Measuring an electrical installation can save effort and money. The addition of energy meters for sub-metering and a current measurement system for branch supervision enables the monitoring of energy usage, from the incoming energy all the way down to the last branch.
Industrial Plugs and Sockets	Easy to use, tough and supporting critical power, with safety as the highest priority for a wide range of applications. ABB has the full range of plugs and sockets for use in the harshest environments.
3-Pole Contactors and Overload Relays for Motor Starting and Power Switching	ABB 3-pole contactors offer an exhaustive selection of products for simple and extreme applications as well as products with specific purposes. The AF contactor technology revolutionizes how we use contactors and allows use in all parts of the world and in a variety of network conditions. Furthermore, the mini-contactor range offers compact dimensions and specific connection possibilities. The AS contactor is efficient and allows optimization of equipment design. You can choose terminals between screw, spring and ring tongue from our range of products.
4-Pole Contactors for Power Switching	ABB's AF 4-pole contactor range is a complement to the family of 3-pole AF contactors and motor protection equipment. Unmatched performance in a variety of applications and environments has made the AF contactors well appreciated by customers throughout the world. You can also benefit from the compactness of the 4-pole mini contactors available with 3 connection types.
Manual Motor Starters	Manual motor starters are electromechanical protection devices for the main circuit. They are used mainly to switch motors manually ON/OFF and to provide fuseless protection against short-circuit, overload and phase failures. Fuseless protection saves costs, space and ensures a quick reaction under short-circuit condition by switching off the motor within milliseconds. Starter combinations are set up together with contactors.
Installation Contactors	ESB installation contactors are mainly used in buildings for switching and controlling lighting, heating, ventilation, motor and pumps. They are designed to match the ABB modular DIN-Rail components and can be easily integrated in dedicated panels. EN contactors have a built-in toggle switch for automatic and manual application.

Product/Offering	Benefits & Features
Motor Controllers	The intelligent ABB Motor Controllers (Universal Motor Controller, UMC) for motor protection, motor control, fieldbus and Ethernet communication and fault diagnosis. Due to the benefits it provides, the UMC is used worldwide in many segments and in projects with several thousand motor controllers.
Soft Starters	ABB's soft starters increase a motor's lifetime by protecting it from electrical stresses. They do so by letting you optimize starting currents that with conventional starting methods put lots of stress on the motor. With many built-in motor protection features, your motor is safe in its hands. ABB's soft starters are also installation-friendly and can cut your assembly and startup time by being easy to use and easy to learn. With everything that you need in one unit, from bypass contactor to over-load protection, a single soft starter makes for a compact and complete starting so-lution. Furthermore, with many application specific features, ABB's soft starters can ultimately help you increase productivity. Torque control, pump cleaning and many more features let you do more than simply softstarting.
Signal Converters	ABB's universal signal converters of the CC-range amplify, convert, isolate and mea-sure any type of analog signal to ensure safe and reliable plant processes. Whenever you need 3-way electrical isolation, select an ABB signal converter to protect your process and automation applications from overvoltage.
Measuring and monitoring relays	ABB's measuring and monitoring relays are designed to not only detect overloads, but also temperature, liquid and other potentially damaging fluctuations. Choose among a large range of high quality products to ensure reliable protection, save cost and avoid unplanned downtime of your processes and equipment by unin-terrupted monitoring no matter what environment you operate in.
Interface Relays and Optocouplers	ABB's interface relays and optocouplers ensure a reliable voltage conversion be-tween process peripherals and higher level control systems. For all sorts of machin-ery, our relays ensure reliable signal switching and provide electrical isolation for your sensitive electronics such as PLCs. The wide variety of pluggable interface relays with standard or logic sockets can be used for switching AC or DC loads. Suitable for extreme environments, ABB's interface relays offers a range of different coil volt-ages and plug-in functional modules.
Electronic Timers	The electronic timers of the CT range have been used in applications worldwide and have proven their excellent functionality in daily use, even under the toughest condi-tions. Three ranges of electronic timers provide timing functions for all applications. ABB ensures all low voltage timing control needs are met with our wide variety of product options — from economic to highly sophisticated, providing maximum value.
Primary Switch Mode Power Supplies	The CP range offers the latest technology in a compact construction of power supplies. Modern power supply units are a vital component in most areas of energy management and automation technology. ABB pays the utmost attention to the resulting requirements. Innovation is the key to a substantial enlargement of our power supply product program.
Connection Devices	ABB proposes one of the largest connection offerings on the market with various technologies including screw, PI-Spring, (Push-In and Spring), spring, IDC, plug-gable, stud, etc. These are found in over 8,000 products.
Limit Switches	Limit switches are electromechanical devices. The contacts are mechanically linked to an actuator. By combining different types of actuators, casings and con-tacts, our limit switches are perfectly suited to a large variety of applications, what-ever the environment.
Pilot Devices	From the smallest inside component to the outer tough shell, ABB's pilot devices are pieces of engineering ingenuity. They are reliable, flexible, and available worldwide.

Product/Offering	Benefits & Features
Cable Ties, Tools and Accessories	ABB offers one of the industry's broadest ranges of innovative solutions for fastening, bundling and securing wire and cable, including the trusted Ty-Rap®, Ty-Fast® and Spec-Kon® cable tie brands in multiple sizes, colors and specialty materials for demanding applications. Our range also covers many mounting bases and easy-to-use tools.
Wiring Duct	Premium quality duct for point-to-point wiring is ideal for electrical enclosures, machine building and data/communications panels and cabinets. Offering includes imperial, metric and DIN duct in standard materials and specialty materials that are halogen-free.
Cable Tray and Metal Framing	T&B® cable tray is a cost effective, reliable and adaptable alternative to conduit systems. Additionally, ABB offers a comprehensive line of metal framing and cable tray, including the industry's only 100% plated products, our 1½" modular system, and hundreds of accessories to complete any job.
Spring Steel Fasteners	Spring steel fasteners offer a quick, easy and reliable method of affixing services to steelwork without the need for making brackets, drilling holes, or using nuts and bolts. All products are manufactured to EN1449 — part 1.15 grade CS70, and are suitable for indoor or outdoor use, and for mildly corrosive environments.
Wire Termination and Tools	A full line that includes insulated and non-insulated terminals, splices, wire joints, disconnects, ferrules, heat-shrinkable terminals, splices and disconnects in imperial and true metric sizes. A complete set of tooling is included.
Heat Shrink Solutions	A broad range of heat shrink products with different wall thicknesses (thin, medium, thick), packaging (reels, cut lengths, dispenser boxes, pre-cut bags), shrink ratios (2:1, 3:1, 4:1), different colors, pre-molded parts, with or without glue are offered (dual).
Compression Cable Lugs and Tools	AWG, IEC and DIN compression connectors, made of the highest-grade materials offering high conductivity/low resistance, meet or exceed all industry standards. Range includes straight and angled connectors and splices, plus a full range of mechanical, pneumatic, and battery operated compression tools.
Earthing, Grounding and Lightning, and Surge Protection	Kabeldon Cable Distribution Cabinets fit well in most environments. They come in various designs and sizes, and perform well even under very tough conditions. At the same time, they satisfy current requirements for long life with undiminished safety and low operating and maintenance costs.
Conduit and Fittings	With our Blackburn® and Furse brands, we offer a complete range of grounding and lightning protection systems, grounding connectors, and surge protection devices (SPD) to protect your building, processes and people.
ABB-free@home® ABB-free@home®	This recently launched solution makes smart home technology an option for the average household—making home automation easier than ever. ABB-free@home® transforms a house or apartment into an intelligent home. Whether blinds, lights, heating, air-conditioning, door communication or scenes.
ABB-free@home® Actuators	Actuators for switching, dimming and control are available for ABB-free@home®. The installation of central DIN rail mounting actuators in the switch cabinet makes the installation of the sensors even easier — as only the bus line is located in the flush-mounted box. With this method, the costs for each channel can be reduced.

Product/Offering	Benefits & Features
ABB i-bus® KNX Smart Home and Intelligent Building Control	
Illumination and Light Sensors	ABB i-bus® KNX ensures optimum lighting of industrial and office buildings as well as private dwellings. The lighting requirement is monitored and controlled. In addition, subsystems (such as 1–10 V lighting control, DALI) and their interfaces are supported.
Shutters and Sun Protection	ABB i-bus® KNX controlled roller shutters, windows and blinds with sun position controlled louvers allow optimal lighting conditions and contribute to improved temperature and climate control in the room.
Heating, Ventilation and Air Conditioning	ABB i-bus® KNX integrates the heating, air-conditioning and ventilation to a comfortable and efficient climate control. Measured temperature values in the rooms are recorded and supplied to the heating and cooling control to generate the optimum temperature and air quality.
Security and Surveillance	The combination of professional ABB security technology components and ABB i-bus® KNX devices provides optimum building monitoring and warning against unauthorized entry. Emergency call stations allow immediate notification if help is required. Technical detection alarms (water, smoke, gas) can also be integrated.
Visualization, Display and Signalling Devices	Networked structures work much more efficiently than individual systems. In both residential and business facilities, energy consumption is reduced, thereby reducing operating costs. At the same time, they provide added comfort and security. ABB KNX control elements form the interface between this state-of-the-art technology and the user.
User Interfaces	Lighting, heating, energy consumption, security systems: With a high-performance home control from ABB, your home responds to your wishes. Living becomes comfortable while energy efficiency and safety increase at the same time. In addition, audio, video or household appliances can also be integrated seamlessly. And with the intuitive operation of the elegant control elements from ABB, you have all areas fully under your control.

Please note: This is ABB's global offering and some products might not be available in your country. Refer to abb.com for your location.

Contact us

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For more information and local contacts, please visit:
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