Low-voltage products and systems Global product offering

ABB provides a full range of low-voltage solutions to connect, protect, control and measure a wide range of electrical installations, enclosures, switchboards, electronics and electromechanical devices. This offering of products improves reliability and efficiency for our customers across all major industries, including residential markets.

Product / Offering	Benefits and features
Cable Ties, Tools and Accessories	ABB offers one of the industry's broadest ranges of innovative solutions for fasten- ing, 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 of- fering 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	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.
Conduit and Fittings	ABB is the global leader in nylon cable protection systems led by the PMA® and Adaptaflex® brand of highly engineered nylon conduits and fittings. In addition, the ABB offering includes metallic and ATEX/IECex/UL/CSA systems for demanding applications.



Product / Offering	Benefits and features
Emergency and Residential Lighting	ABB offers of a comprehensive portfolio of stylish and robust emergency and resi- dential lighting, central battery supply, and monitoring systems. With our optimized lighting optics based on the latest LED technology, we are able to offer slim and styl- ish luminaries that lower energy and maintenance costs. (Note: Building and safety standards and brands vary by country.)
Light Switch Ranges	Modern light switches are more than just functional; they can serve as fascinating design objects. They combine aesthetic quality with innovative technology. ABB has a full range of solutions to meet local requirements and consumer tastes.
Socket Outlets	Living without electricity these days is nearly impossible. However, electricity can also quickly become life-threatening. Devices can become unsafe or defective, or a child could tamper with the socket outlet. Hazards also occur by unintentionally drilling into a cable or from lightning strikes.
Data Communication	Increasingly, adapters are being used in home theatre and entertainment systems. The new communication adapter is suitable for LCD or plasma TV, DVD and Blue-Ray devices, hard disk recorders and similar devices.
Multimedia	AudioWorld® is a flexible and convenient audio system for entertainment and communication.
Movement/Presence Detectors	These innovative and high-quality movement and presence detectors by ABB simply make life more comfortable. They automatically manage many tasks in every area of the building, both indoors and outdoors. When it comes to safety, you know precisely when light is needed. Other functions such as heating and air-conditioning can be intelligently and reliably integrated. Busch-Watchdogs are a unique combination of design, safety, efficiency and comfort.
Smoke Detectors/Heat Detectors	A fire can start quickly and unexpectedly. Many heat sources are used in the home-especially the kitchen. Suddenly the doorbell rings, you start chatting with your neighbor, the saucepan overheats and a fire starts. Busch-Smoke alarm detector ProfessionalLINE and Busch-Heat alarm detector ProfessionalLINE alert you to the danger with a loud alarm signal and thereby prevent a disaster.
Management of Blinds	The blind management range opens new dimensions for the residential housing market. You can now enjoy greater living comfort, safety and economic efficiency in your house. The blind management system is suitable for controlling all motor-driven blinds, roller blinds and awnings. With the replaceable operating elements, the comfort increases with the demand.
Room Temperature Controller	Having a room at a comfortable temperature is important to our sense of well being. Heated or air conditioned rooms can be optimally adjusted according to user-defined settings.
Timers	There are household tasks that must be done each day. Why not use a timer to man- age these tasks, leaving time for more important things.
Dimmer	Comfortable control of light for a wide range of lamps such as LED lamps, conven- tional incandescent lamps, 230 V halogen lamps, as well as low-voltage halogen lamps with conventional inductive or electronic transformers. ABB care for clarity and safety in the selection of dimmers.
Security Technology	Safety and security are top concerns for families everywhere. ABB is committing to keeping families safe where they work, live, and travel.
Door Entry Systems	ABB-Welcome® provides comprehensive comfort, greater security and elegant de- sign. The fascinating design and innovative technology of our door entry system can fully complement new construction or rehab of existing buildings.

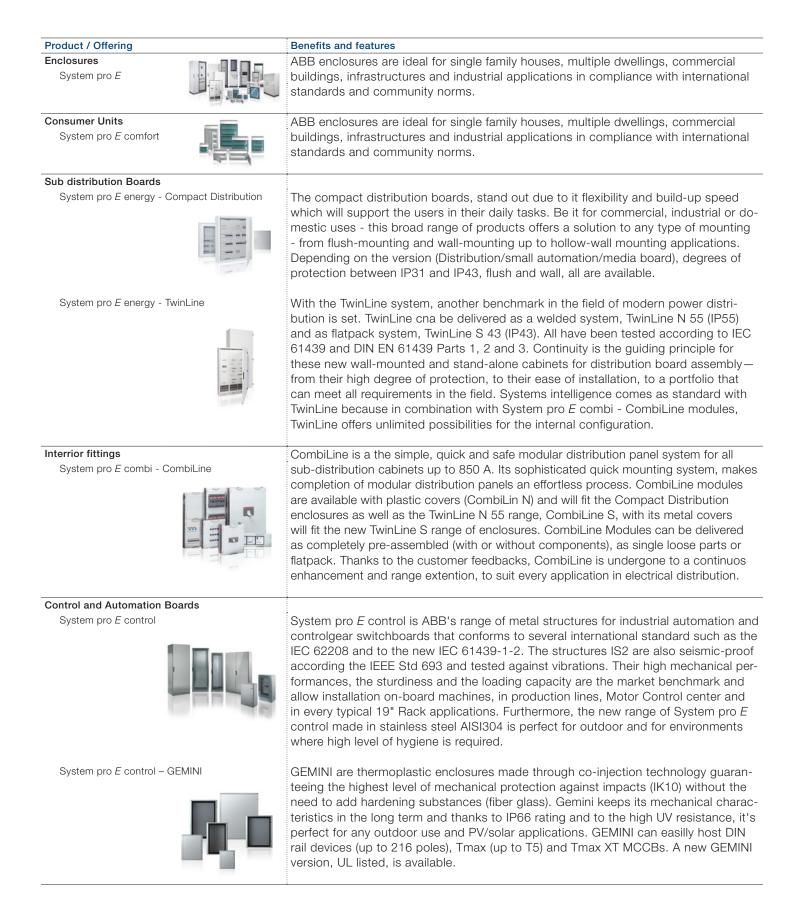
Product / Offering		Benefits and features
Industrial Plugs and Sockets		Easy to use, tough and supporting critical power, with safety as the highest priority for a wide range of applications. ABB has the full range of plugs and sockets for use in the harshest environments.
ABB i-bus® KNX Smart Hon		
and Intelligent Building Con Illumination and Light Sensors	trol	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 comfort able 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 unau- thorized 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	- 7-42	Networked structures work much more efficiently than individual systems. In both resi- dential and business facilities, energy consumption is reduced, thereby reducing operat- ing 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 com- fortable 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.
ABB-free@home®		
ABB-free@home®		This recently launched solution makes smart home technology an option for the aver age 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.
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 trip ping 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.

Product / Offering	Benefits and features
Surge Protective Devices (SPDs)	The OVR range is designed to protect electrical systems and equipment against tran- sitory 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 avail- ability, 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 com- pletely 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.
Enclosures	ABB enclosures are ideal for single family houses, multiple dwellings, commercial buildings, infrastructures and industrial applications in compliance with international standards and community norms.
Consumer Units System pro E comfort	System pro <i>E</i> 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 <i>E</i> comfort one of the most complete ranges of consumer units to complete ABB's offer for protection, control and monitoring.
Sub Distribution Boards System pro <i>E</i> energy TwinLine	With the TwinLine system, another benchmark in the field of modern power distribution is set. TwinLine has 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 CombiLine- M modules, TwinLine offers unlimited possibilities for the internal configuration.
Cable Distribution Cabinets and Board	Kabeldon Cable Distribution Cabinets and Board 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 <i>E</i> control is ABB's range of metal structures for automation. These have been enhanced thanks to the experience gained from working on the most industrialized and technologically advanced world markets. The metal structures conform to the IEC 62208, the IEC 60439-1 and to the new IEC 61439-1-2 Standard. Their performances are the market benchmark: high IP degrees of protection and IK resistance to mechanical impact, which permits installation in most industrial environments. System pro <i>E</i> control includes enclosures in steel sheet powder coated and enclosures in stainless steel AISI 304, allowing for indoor and outdoor installations.
Main Distribution Boards System pro E power	System pro <i>E</i> 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 <i>E</i> power guarantees full compatibility with all other ABB products.

Product / Offering	Benefits and features
Molded Case Circuit	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 bet- ter 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, gen- erator 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.
AC Switch Disconnectors	The OT range of switch disconnectors from 16 to 4000A is suitable for diverse appli- cations such as machinery, power distribution and motor control centers. Thanks to a modular design, OT switches are available in different pole configurations. Mount- ing 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.
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.
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.
EasyLine XLP, Fuse Switch Disconnectors	EasyLine range of fuse disconnectors ensures high protection and reliable opera- tion in critical power applications, distribution boards, switchboards, and capacitor banks. A wide range of cable terminals and snap-on accessories make the installa- tion easy and fast. EasyLine can be fitted into different distribution systems by means of busbar adapters.
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 inte- grated energy monitoring device ITS2.

Product / Offering	Benefits and features
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.
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.
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.
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.
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, pluggable, stud, etc. These are found in over 8,000 products.

Product / Offering	Benefits and features
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.
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 overload protection, a single soft starter makes for a compact and complete starting solution. 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.
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.
Emergency Stops and Pilot devices	An emergency stop device is used to permit anyone to stop machinery if it breaks down or if someone is in danger. We offer different types of traditional mushroom head type emergency stops for different types of mounting and environments. We also offer grab wire emergency stops that allow emergency command from any point along the installed wire length.
Fencing systems	Quick-Guard is a very flexible fencing system consisting of a minimum of different components, such as aluminum profiles, patented assembly parts, net-locks, mesh, solid or noise reduction panels. Thanks to our patented screw-lock system, we can supply all brackets pre-mounted with fixing screws and nuts. No holes need to be drilled in the profiles and all cuts are made straight. Assembly and modification is therefore very easy. Quick-Guard can be supplied to be designed on site (Quick- Guard Express) or designed and cut according to drawing (Quick-Guard standard).
Optical safety devices	Optical safety devices are used to detect the presence of a person or an object in a dangerous area. A light curtain has several infrared light beams that are placed closely together, whereas a light grid consists of up to four light beams. Light curtains are often chosen for short distances and light grids for longer distances. The optical device can be placed as protection in an opening or around the dangerous area. When a light beam is interrupted, a dual stop signal is given to the dangerous machine inside the protected area.
Safety control modules and devices	ABB offers safety relays for all kinds of safety devices. The safety relays have great flexibility and a wide range of input options. They are small and compact with an excellent reliability and safety level.
Safety Edges, Bumpers and Mats	Pressure sensitive devices detects when pressure is being applied. For example, when a person is being hit by the safety edge/bumper or is standing on the safety mat. Safety edges and bumpers are used as protection against squeezing. Bumpers are used for longer stop times. Safety mats are used primarily for area protection around dangerous machines.
Safety Sensors, Switches and Locks	ABB has a full range of sensors, switches and locks used to control the gates and hatches around hazardous machinery, and to monitor the position of a machine.



Product / Offering	Benefits and features
Main Distribution Boards System pro E power	System pro <i>E</i> 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 <i>E</i> power guarantees full compatibility with all other ABB products.
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.

Contact us

ABB

Low Voltage Products Cityport, Affolternstrasse 44, Zurich 8126 Switzerland

For more information and local contacts, please visit: www.abb.com/low-voltage

The information contained in this document is for general information purposes only. While ABB strives to keep the information up to date and correct, it makes no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information, products, services, or related graphics contained in the document for any purpose. Any reliance placed on such information is therefore strictly at your own risk. ABB reserves the right to discontinue any product or service at any time.

© Copyright 2016 ABB. All rights reserved.

