

Medium-voltage products

Global product offering

ABB offers a wide range of medium-voltage products to the Distributor channel, including distribution automation relays, instrument transformers and sensors, fuses and switches, outdoor apparatus, secondary switchgear and service. These products and solutions are used in many applications such as utilities, renewables, building & infrastructure and transportation.

Product / Offering	Benefits and features
Medium-voltage distribution automation	
<p>Arc protection devices REA series</p> 	<p>With safety a top priority, the REA family of relays is designed for the protection of medium and low-voltage air-insulated switchgear against arc incidents.</p>
<p>Test switches Flexitest™ switch</p> 	<p>Flexitest™ switches provide a safe, simple, fast and reliable method to isolate, test, and service installed equipment without disturbing the system.</p>
Distribution protection relays & control solutions	
<p>605 series</p> 	<p>Self-powered numerical feeder protection designed for the protection of utility and industrial power systems. A compact design and mounting arrangement suitable for Ring Main Unit (RMU) applications. Over-current and earth-fault protection with the control of one circuit breaker. Utilization of the advantages of Rogowski coil current sensors to medium-voltage applications.</p>
<p>610 series</p> 	<p>The 610 series IEDs offer protection and supervision of the medium-voltage power systems at, for instance, large industrial plants, such as power plants in the pulp and paper industry, petrochemical industry, metal industry and other power-intensive process industries.</p>
<p>Electromechanical relays</p> 	<p>For new applications where reliable operation is essential, in harsh environments, or in existing installations where an exact replacement is required, ABB electromechanical relays are key components for your power infrastructure.</p>
Medium-voltage instrument transformers	
<p>Instrument transformers – indoor Current and voltage transformers 0.72-40.5 kV</p> 	<p>Dry type instrument transformers for indoor use providing high accuracy for measuring and protection applications as energy meters, protection relays, etc. Available to OEM manufacturers and assemblers for switchgear, power transformers, breakers, capacitor banks, substations, metering cabinets, machines, generators and compact secondary substations.</p>
<p>Instrument transformers – outdoor Current and voltage transformers 0.6-40.5 kV</p> 	<p>Dry type instrument transformers for outdoor use providing high accuracy and standard accuracy metering, relay protection, and control power. Available to OEM manufacturers and assemblers for switchgear, power transformers, breakers, capacitor banks, substations, metering cabinets, and pole mounts.</p>
<p>Solution for Ferro resonance elimination VT Guard Pro VT Guard Pro-D</p> 	<p>VT Guard Pro is an advanced security device that protects MV inductive voltage transformers (VTs) against Ferro resonant oscillations.</p>

Product / Offering	Benefits and features
Low-voltage instrument transformers	
LV instrument transformers Current transformers 0.72 kV type: IMP, IMR, IMS, IMW, ISW. 	Dry type instrument transformers for indoor use providing high accuracy and standard accuracy metering, relay protection, and control power. Available to OEM manufacturers and assemblers for switchgear, metering cabinets.
Medium-voltage sensors	
Sensors – indoor KEVCD, KECA, KEVA etc. types 	Sensors offer a state-of-the-art way of providing the current and voltage signals needed for the protection and monitoring of medium-voltage power systems. Current, voltage and combined sensors with optimized designs open up numerous advantages and benefits for their users, e.g. fast and easy design process, quick delivery time, minimized cost during the life cycle, high flexibility, safety and reliability.
Sensors – outdoor DistribuSense™ current and voltage sensors 	Designed to support the needs of the grid, DistribuSense sensors have the highest measurement accuracy to maximize distribution grid efficiency, enhance distribution grid reliability, and provide high accuracy with easy installation.
Medium-voltage fuses	
IEC fuses CEF/CMF/CEF E- rated/WBP 	ABB current limiting fuses are back-up types and are designed for cooperation with contactors and load break switches or for stand alone application. Due to extremely fast operating times ABB fuses offer the most efficient protection level against all fault currents, protecting installed electrical apparatus. The unique combination of thermal striker pin and overload spots make them suitable for application in Compact Switchgear.
ANSI fuses CLC/CIL/CXP/COL/CXLP 	ABB capacitor fuses guard against potential damage caused by overcurrent and/or short circuit conditions in low- and medium-voltage applications. Our full range indoor current limiting fuses are ideal for use in metal-enclosed equipment, while full range outdoor current limiting fuses protect individual capacitors and capacitor banks. Outdoor expulsion fuses offer protection and visual indication of operation for ease of service.
Medium-voltage indoor switches	
VR load break switch VR/NAL 	The most economic switching device for high short circuit currents when combined with current limiting fuses. The VR/NAL switches offer high number of breaking operations for nominal load currents that allow long and reliable life time proven by over 600000 switches being in application worldwide since over 35 years.
Indoor disconnectors OW/OWD/OJON 	Designed to withstand high short circuit currents and for easy disconnecting in off load conditions. Applicable for all modern network arrangements.
Earthing switches E/EK6 	The earthing switches family is composed of both free standing and build in products. The standard design provides possibility for emergency making operations. Compact design support application in switchgear and other enclosed panels.
Medium-voltage passive voltage indicators	
VisiVolt™ 	Adapted for permanent installation on busbars and naked or insulated metal conductors in medium-voltage systems, the VisiVolt indicates the presence of voltage to provide a higher level of safety.

Product / Offering	Benefits and features
Medium-voltage outdoor apparatus	
Overhead disconnecter switches	
DCD double insulator single-phase	 <p>Hook stick operated switch used for sectionalizing or isolating circuits on electrical distribution systems up to 38 kV.</p>
ITD single-phase, non-loadbreak, inline tension with silicone insulator	 <p>Used for manual switching of de-energized or parallel circuits of overhead distribution lines rated 15-38 kV.</p>
RBD single-phase bypass	 <p>Provides a means for bypassing and disconnecting reclosers or voltage regulators, allowing maintenance on equipment without service interruption.</p>
SID (15 kV–38 kV, 600 or 900 A) & LSID (15.5kV–15/27 kV, 600 A)	 <p>Single-phase disconnect on overhead distribution feeders and in outdoor distribution substations. Mount like a standard cutout or directly on a pole, used as a disconnect between overhead and underground lines.</p>
Outdoor substation circuit breakers	
R-MAG® magnetically actuated dead tank outdoor breaker	 <p>Designed with a magnetic actuator mechanism, the R-MAG breaker reduces costly maintenance intervals, increases reliability, and improves safety. This field-proven design is offered in ratings of 15-38 kV, 200 kv BIL and 40 kA.</p>
OVB live tank circuit breaker	 <p>Together with a telescopic arrangement that drastically reduces the civil works costs and substation project designs, the OVB range provides ABB's worldwide recognized vacuum interrupters and actuators to increase reliability while reducing the total cost of ownership for customers.</p>
Overhead distribution cutouts & sectionalizer	
AutoLink sectionalizer	 <p>With only one style needed per voltage class (15 and 27 kV), you'll save time, effort, and money. The ABB Autolink fits on a standard ICX cutout body and is field configurable and field resettable. It includes the ability to operate as a single-phase unit or wirelessly as a three-phase unit.</p>
Types ICX, LBU-II, NCX, EU & vertical contact	 <p>Distribution cutouts, used on overhead distribution systems to provide overcurrent protection, give visible indication of fuse operation and sectionalizing break points for maintenance personnel.</p>
Reclosers	
GridShield®, up to 38 kV, 1200 A, 16 kA	 <p>ABB's newest generation recloser with the advanced RER620 control and integrated web browser for easy programming, the GridShield provides smart grid technologies such as DNP & IEC 61850 with GOOSE messaging; available with single- and three-phase tripping, integrated loop control.</p>
OVR recloser (single and three phase), up to 38 kV, 1200 A, 16 kA	 <p>OVR recloser family provides single-phase tripping or three-phase ganged tripping, reduced maintenance, and increased safety with all electronics located in the low voltage control cabinet. The OVR is available with single- and three-phase tripping recloser units and a variety of controllers.</p>
Overhead three-phase switches	
Sectos gas insulated switches	 <p>Provides the flexibility to use in the most harsh environments as well as flexibility to upgrade from manual to motorized and fully automated solution for sectionalizing overhead distribution networks.</p>
NPS air insulated switches	 <p>With its modular design, the three-phase air insulated switch NPS provides a compact and effective solution to provide visible break as well as flexibility to upgrade from manual to motorized and fully automated solution for sectionalizing overhead distribution networks.</p>

Product / Offering	Benefits and features
<p data-bbox="110 121 493 149">Medium-voltage secondary switchgear</p> <p data-bbox="110 159 440 186">Secondary air-insulated switchgear</p> <p data-bbox="142 191 453 275">UniSec indoor Air-Insulated switchgear for medium-voltage secondary distribution up to 24kV</p> 	<p data-bbox="630 159 1539 338">UniSec metal-enclosed air-insulated switchgear is based on a highly flexible, modular concept with fewer parts and standardized solutions that can be readily configured to meet the specific needs of each application. This approach reduces training and maintenance requirements, ensures fast installation and facilitates future expansion to meet changing needs. UniSec offers highest level of safety with different solutions in terms of Internal Arc classification and Safety Interlocks.</p>
<p data-bbox="110 369 440 396">Secondary gas-insulated switchgear</p> <p data-bbox="142 401 453 516">SafeRing / SafePlus is a SF6 insulated ring main unit / Compact switchgear for the secondary distribution network up to 36kV (40.5kV)</p> 	<p data-bbox="630 369 1539 485">Together, SafeRing/ SafePlus provides a complete, flexible and compact switchgear system solution. It is a completely sealed system with a stainless steel tank containing all the live parts and switching functions. This ensures a high level of reliability as well as personnel safety and a virtually maintenance-free system.</p>
<p data-bbox="110 558 347 585">Medium-voltage service</p> <p data-bbox="110 596 448 711">A complete portfolio of products and services to support the entire lifecycle of medium-voltage switchgear.</p> 	<p data-bbox="630 596 1539 774">Expert service that covers all requirements from installation and commissioning to circuit breaker retrofits and complete switchgear replacement. The portfolio supports both ABB and 3rd party manufactured switchgear to enhance and support the complete life of the installed asset through the use of correct spare parts, maintenance, upgrades and retrofits all of which can be bundled together into bespoke, comprehensive service support agreements.</p>

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.

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www.abb.com/medium-voltage

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