



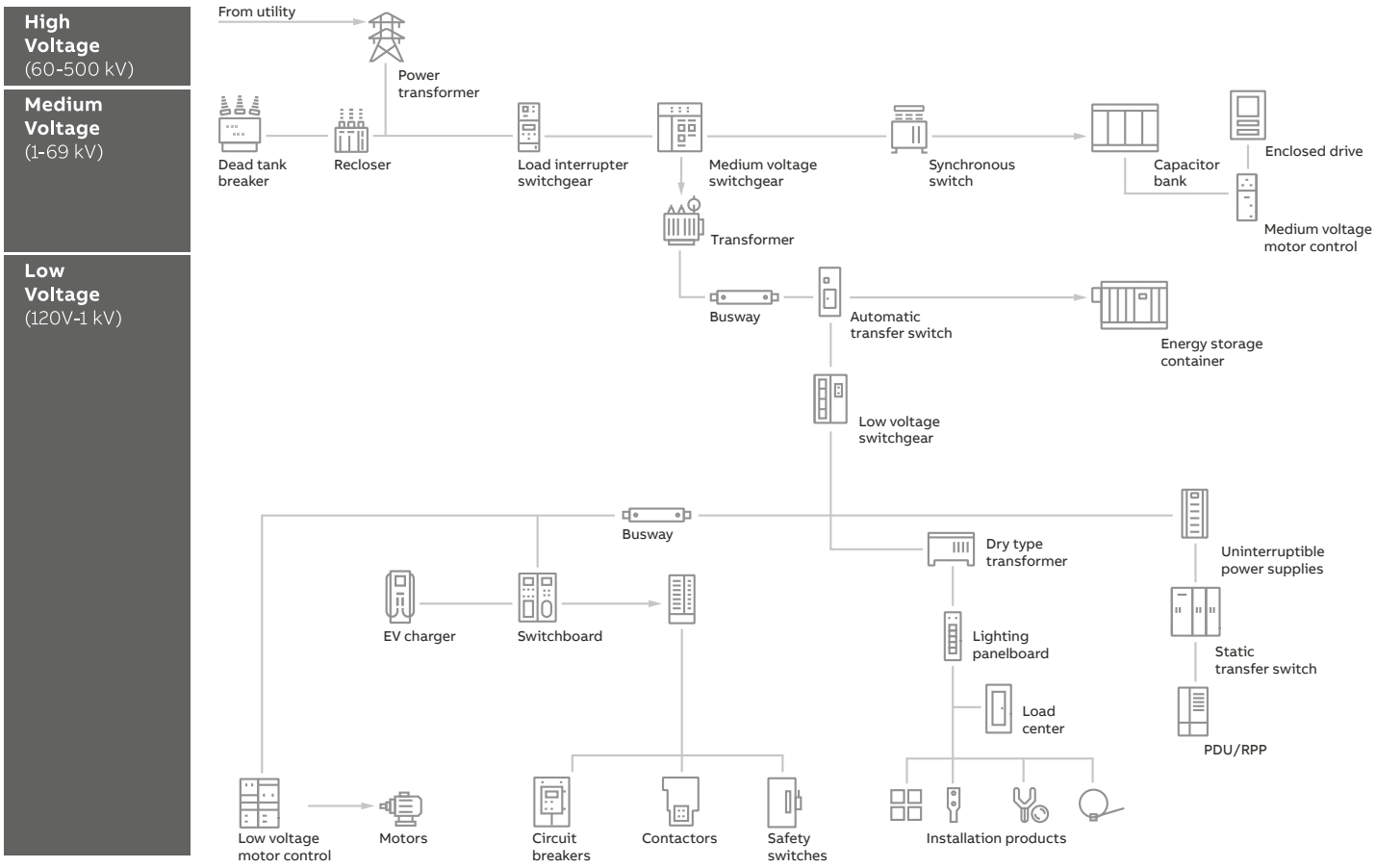

BROCHURE

Product offering for electrical original equipment manufacturers

Whether you are looking to differentiate your product, add value for your customer or find a global partner who can help improve your manufacturing efficiency, ABB, a global leader in circuit breaker technology and other electrical components, knows what it takes to provide innovative solutions to customers who depend on electrical distribution.

When you're looking to add value for your customers, look to ABB

With a full line of components and equipment along with special partnership programs, ABB is the ideal partner for electrical original equipment manufacturers.



Equipment product offering

— Product offering for EOEMs — low voltage







ABB equipment

Product	Lighting panel	Panelboard	Switchboard	MCC	LV switchgear
Trademark name	ReliaGear™ LP	ReliaGear™ neXT	ReliaGear™ SB	ReliaGear™ LV MCC	ReliaGear® LV SG
UL certification	UL 67	UL 67	UL 891	UL 845	UL 1558
Typical application	Commercial	Commercial	Commercial / industrial	Industrial	Industrial
Maximum amperage	800 A	1,200 A	6,000 A	3,200 A	8,000 A
Maximum voltage	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC
Standard breaker frames used	TQB, TQL, TEY, Formula A2, Tmax® XT1, XT2, XT4, XT5, XT6	Record Plus® FB, TEY, Formula A2, Tmax® XT1, XT2, XT4, XT5, XT6, XT7	Record Plus® FB, Tmax® XT1, XT2, XT4, XT5, XT6, XT7, Emax 2, Power Break II	Tmax® XT2, XT4, XT5, XT7, Emax 2, Power Break II	Emax 2
Misc.	–	Plug-in breaker connection	Plug-in breaker connection	Optional 1-AM OEM express version without wiring	–

Equipment OEM offering

Product	Panelboard and switchboard	Panelboard and switchboard	LV switchgear
Trademark name	ReliaGear™ neXT and ReliaGear™ SB interiors	Tmax Link®	Emax Link 2
UL certification	UL 67 and UL 891	UL 67 and UL 891	UL 1558
Typical application	Commercial / industrial	Commercial / industrial	Industrial
Maximum amperage	PB: 1,200 A SB: 6,000 A	5,000 A	5,000 A
Maximum voltage	PB: 600 V AC SB: 600 V AC	600 V AC	600 V AC
Standard breaker frames used	Record Plus® FB, TEY, Formula A2, Tmax® XT1, XT2, XT4, XT5, XT6, XT7	Formula A1–A2, Tmax® XT1–XT7	Emax 2
Misc.	OEM branded; plug-in breaker connection	OEM branded; UL file extension; drawing package with bolt-on strap design	OEM branded; UL recognized; abbreviated equipment

— Product offering for EOEMs — medium voltage






Product	MV MCC	MV switchgear narrow	MV switchgear	MV arc-resistant switchgear	MV arc-resistant high-duty switchgear	MV gas-insulated switchgear
Trademark name	Limitamp®	ReliaGear® ND	Advance® MV SG	SafeGear® MV SG	SafeGear® HD MV SG	ZX2.2
UL certification	UL 347	UL/cUL	UL/cUL	UL/cUL	UL/cUL	UL/cUL
Licensing	No	Contact ABB	Yes	Contact ABB	Contact ABB	Contact ABB
UL file extension	–	Yes	Yes	Contact ABB	Contact ABB	–
Typical application	Utilities, industrial	Data centers, commercial	Utilities, industrial, commercial, data centers	Utilities, industrial	Utilities, industrial	Utilities, industrial
Maximum amperage	3,000 A	2,000 A	ADVANCE: 4,000 A ADVANCE 27: 2,000 A	4,000 A	4,000 A	2,500 A
Maximum voltage	7.2 kV	15 kV	ADVANCE: 15 kV ADVANCE 27: 27 kV	15 kV	15 kV	42 kV
Standard breaker frames used	CR193	Vmax/A	AMVAC™, ADVAC™, ADVAC™ G	AMVAC™, ADVAC™, ADVAC™ G	AMVAC™, ADVAC™, ADVAC™ G	VD4X

Engineered products for EOEM applications
Low voltage solutions

Power panel and switchboard interiors

ReliaGear™ interiors for neXT power panels and switchboards
ABB's ReliaGear OEM offering enables you, our partner assembler, to build distribution switchboards and panelboards using the ReliaGear neXT plug-in design. By purchasing premade plug-in vertical bus and plug-in circuit breaker assemblies from ABB, you can manufacture panels and group-mounted sections with your own branding and expertise with the support of ABB UL components. The ReliaGear power panelboard can be equipped with circuit breakers from 15 A to 1200 A with options of 100% rated breakers up to 1200 A. The maximum short circuit rating is equal to 100 kAIC at 480 V or 65 kAIC at 600 V, or the lowest current interruption rating of any device installed.

Low voltage circuit breakers

SACE® Tmax® XT molded case circuit breakers (MCCBs)
Tmax XT MCCBs provide an extremely high level of performance with limited overall dimensions and installation simplicity. The Tmax XT line is available in eight sizes, with a complete range of trip unit options and a wide variety of electrical and mechanical accessories.

- Thermal magnetic and electronic versions
- Up to 1200 A with up to 200 kA of short circuit protection
- 240, 480 and 600 V optimized solutions
- Fixed, plug-in or drawout
- Accessories include motor operators, auxiliary and signal contacts, shunt trip, under-voltage release and bell alarms

SACE® Emax 2 air circuit breakers (ACBs)
Emax 2 ACBs provide the latest protection technology with ease of installation and use. They function as circuit breakers for power distribution equipment.

- For applications in accordance to UL 1066 standards 635 V AC
- Available in fixed and drawout styles
- Up to 6000 A
- Up to 100 kA of short circuit protection
- Accessories include motor operators, auxiliary and signal contacts, shunt trip, under-voltage release, bell alarms and more

Emax 2 all-in-one innovation embeds into an Emax 2 air circuit breaker to provide full power control. The embedded features of all-in-one innovation extraordinarily simplify the installation, programming and testing of these functions:

- Embedded ATS
- Load shedding
- Synchronized reclosing
- Integrated IPS
- Predictive maintenance

With ready-to-go programming and simplified connections all in a compact, reliable system.

Engineered products for EOEM applications
Medium voltage solutions

AMVAC™ ANSI indoor vacuum circuit breaker
The magnetic actuation technology of the AMVAC ANSI medium voltage vacuum circuit breaker provides a more reliable and longer-lasting breaker mechanism solution to the industry. This is made possible by the simplicity of the magnetic actuator design, which features one moving part and built-in self-diagnostic features.

- Open and close coil actuation is achieved by a current-limited 45 ms pulse from internal capacitors with stored energy, drastically reducing coil burning failures
- Limited maintenance on magnetic actuator and increased number of operations between service intervals decreases personnel time in front of switchgear lineups
- Vacuum interrupters completely embedded in a solid insulation material provide superior protection against dust, dirt and condensation, and are less susceptible to failure due to contamination, tracking or partial discharge

ADVAC™ ANSI indoor vacuum circuit breaker
A unique modular design allows for quick and safe service for motors, coils and key components. The ADVAC series is a complete line of ANSI-rated vacuum circuit breakers with a spring-charged mechanism, offering power distribution system customers the advantages of the latest technology with a modular design that is easily maintainable.

- ABB's EL spring mechanism is used across our IEC and ANSI circuit breaker portfolio; with over 2 million EL mechanisms installed worldwide, it is by far the most installed MV circuit breaker mechanism globally
- Modular mechanism design allows replacement of coils or motors with the removal of only one screw, reducing maintenance and overall downtime
- Vacuum interrupters completely embedded in a solid insulation material provide superior protection against dust, dirt and condensation, and are less susceptible to failure due to contamination, tracking or partial discharge

ADVAC™ G ANSI indoor vacuum circuit breaker
Small footprint, full protection for generator applications. The ADVAC G is tested to meet the most stringent IEEE and IEC requirements for generator applications as per IEEE C37.013 and the new revision IEC/IEEE 62271-37-013, the only standards for GCB.

- Safety and protection of personnel and assets in all service modes including out-of-phase condition and up to 130% direct current component
- Accelerate projects with easy generator circuit breaker integration and dedicated application support
- Shared interface between ADVAC G and standard ADVAC/AMVAC distribution breakers for easy integration in switchgear lineups
- Accelerate projects with outstanding technical support from the field application engineering team

Engineered products for EOEM applications
Critical power solutions

TruONE automatic transfer switch (ATS)
A critical breakthrough for critical power, the TruONE ATS is the world's first true all-in-one automatic transfer switch, engineered to incorporate switch and controller in one seamless unit. Performance tested beyond standard requirements, TruONE stands ready to ensure the steady delivery of critical power at all times. Its self-contained design reduces the number of wires and connections, which speeds installation and ensures best-in-class reliability. Its predictive maintenance and modular components reduce downtime and service costs. And its advanced connectivity is ready for the future. In addition, unlike typical ATS solutions, TruONE allows emergency manual operation under load for immediate power restoration in the event of equipment malfunction. TruONE represents a major shift in engineering and a critical breakthrough for critical power.

TPME and TPHE surge protective devices (SPDs)
ABB surge protective devices shield sensitive electronic equipment against the damaging effects of transients caused by lightning, utility load switching, internal load switching and more. They are listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications, featuring thermally protected metal oxide varistors (MOVs) that ensure maximum performance and safe operation and eliminate the need for additional upstream over-current protection. Standard features include dry contacts for remote monitoring and LEDs to indicate proper functioning of the SPD.

- Can be integrated within a switchgear or panelboard
- For use in lightning protection systems
- Thermally protected MOV design
- NEMA 4

TPME
- 65 to 100 kA per mode surge current ratings, 130 to 200 kA per phase
- Perfect for mid-level distribution and point-of-use applications.

TPHE
- 125 to 300 kA per mode surge current ratings, 250 to 600 kA per phase
- Designed for service entrance and mid-level distribution applications

OVRHTP surge protective devices (SPDs)
A cost-effective solution designed for UL panel builders and original equipment manufacturers (OEMs) to help protect against utility power anomalies and lightning-induced transient surge conditions. OVRHTP compact and advanced design features thermally protected MOVs to eliminate overvoltage, safeguarding your equipment and capital investments.

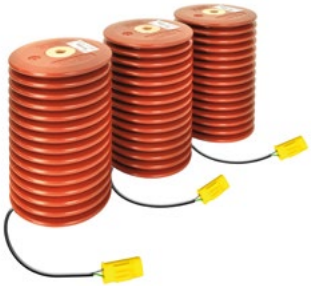
- Thermally protected MOVs
- Metal or polycarbonate enclosure options
- Compact and lightweight design
- Standard monitoring status indicator lights (one per phase)
- Dry relay contacts report SPD status remotely
- Optional surge counter display
- Optional audible alarm with silence button

Engineered products for EOEM applications
Arc flash protection solutions

Arc Guard System™ TVOC-2

Safety for your most valuable resources. The arc flash is one of the most dangerous incidents in electrical installations that could cause severe harm to people and equipment involved. When an arc flash occurs, time until arc interruption is one of the most critical factors since it is directly proportional to the amount of energy released. The arc flash incident energy will in turn determine how much damage an arc flash will cause. ABB is a leader in electrical safety with the TVOC-2 Arc Guard System, providing an unrivaled optical arc flash mitigation device with the fastest reaction time on the market. The TVOC-2 detects the light from an occurring arc flash and sends the signal to the breaker within 1 ms. Together with ABB's Emax 2 circuit breaker, the total arc fault clearing time is less than 50 ms. If the switchgear is likely to be exposed to strong light that could cause nuisance tripping of the TVOC-2, current can be added as a second condition. The current-sensing unit CSU-2 is an accessory to the TVOC-2 that will identify the current increase associated with an arc flash.

- Increased safety for personnel and equipment
- Minimizes downtime after an arc incident
- No calibration needed, ensures reliable function and quick installation
- Can easily be expanded with up to 30 sensors to increase cabinet coverage from a single TVOC-2
- Rogowski technology current sensors for fast and reliable installation



Ultra-fast earthing switch (UFES)

This innovative active arc mitigation system provides the highest level of safety for LV and MV systems against the hazardous impacts of internal arc faults. The UFES is an effective combination of light detection, current monitoring, relaying and primary switching elements (PSEs) all used in conjunction to detect and eliminate a fault in less than 4 ms.

Product range: 1.4 kV Ur, 100 kA Ik; 17.5 kV Ur, 63 kA Ik; 27 kV Ur, 40 kA Ik; 36 kV Ur, 40 kA Ik; 40.5 kV Ur, 40 kA Ik

- Greatly increased safety for personnel working within the switchgear environment due to 4ms arc extinguishment
- Minimized damage of electrical equipment and environment reduces repair costs and downtime by up to 98%
- 20 times faster than standard arc fault protection
- Possible reduction of PPE category according to NFPA 70E
- 0% toxic gases release due to effective reduction of arc duration

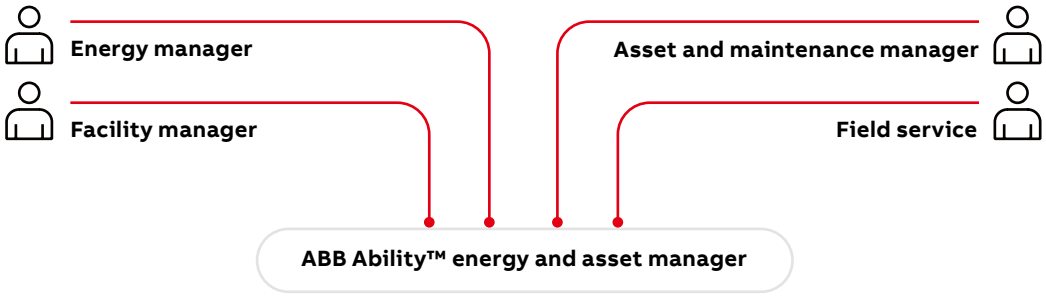
Engineered products for EOEM applications
Digital technology solutions

Ekip UP
Adding digital capability to an analog system. Ekip UP is the low-voltage digital unit able to monitor, protect and control the next generation of plants. Thanks to its built-in software-based function, Ekip UP digitalizes plant performance. Sharing all the electronics solutions of an “all-in-one” platform, Ekip UP completes the ecosystem to fit all market opportunities. The result is a unit suitable for many different applications, including all the needed functionalities without the need for additional external devices.

Ekip UP enables you to:
- Update an older facility with the latest innovations in the fastest way.
- Upgrade the plant and gain more functionalities to cover all opportunities.
- Upload measures and enable true energy management function.
- Maximize uptime thanks to easy commissioning without impact on switchboard design.

ABB Ability™ energy and asset manager
ABB Ability energy and asset manager is a state-of-the-art cloud solution that integrates energy and asset management in a single intuitive dashboard. Providing full remote visibility of asset and electrical-system behavior, ABB Ability energy and asset manager provides insights that help you minimize cost and risk and maximize performance and safety across your operations. Want to get started now? Testing and purchasing the energy and asset manager is easy on the ABB Ability Marketplace™.

A single solution for all your asset and energy management needs.



Energy manager
- Optimize energy bill
- Avoid energy waste
- Allocate costs

Asset manager
- Reduce total cost of ownership
- Maximize uptime
- Improve safety

Engineered products for EOEM applications
Digital technology solutions

ABB Ability™ Edge industrial gateway
Unlock your equipment's full potential, on-edge or in-cloud. The all-new ABB Ability Edge industrial gateway uses IoT technology to simplify existing gateways. It is designed to collect all generated field device and parameter data, feeding it into one user-friendly dashboard.

This solution makes it possible to monitor all of your downstream low- and medium-voltage devices via the cloud or an on-premise system, with optional engineered products for EOEM applications and cellular connectivity.

Access information from your local network only. The Edge industrial gateway provides access to your data via your local network. You can access the ABB Ability™ energy and asset manager dashboard, but your data stays local and is not transferred to the cloud.

Engineered products for OEM applications
Full line of components

Low voltage components
- Dry type transformers
- Formula molded case circuit breakers
- SACE® Tmax® T PV molded case circuit breakers
- UL 1077 miniature circuit breakers
- UL 489 miniature circuit breakers
- Power Break II insulated case circuit breakers
- HPC™ new generation, high pressure contact fusible
- Tmax T8 insulated case circuit breakers
- ProLine commercial distribution panelboard
- SMISSLINE TP industrial distribution panelboard
- Surge protective devices
- Safety switches
- Enclosed circuit breakers
- Enclosed combination starters

Medium voltage components
- Is-limiter current limiting devices
- FC-Protector®
- ConVac® vacuum contactor
- REA series arc protection
- VersaRupter® ANSI indoor air-insulated load break switch
- DS1 diode-based transient-free capacitor switch
- VD4-CS vacuum interrupter breaker
- Vacuum interrupters and poles
- R-MAG® magnetically actuated outdoor breaker
- GridShield® triple-single recloser
- OVR three-phase recloser
- Test switches and accessories
- Electromechanical relays
- Microprocessor relays with PCM600
- Current and voltage instrument transformers
- AccuRange® current transformers
- Voltage transformers with ResiVolt™ technology
- Indoor current, voltage and combination sensors

CONTACT US

Do you have a similar project and are you searching for the right Application configuration? Contact us and talk to our experts!

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