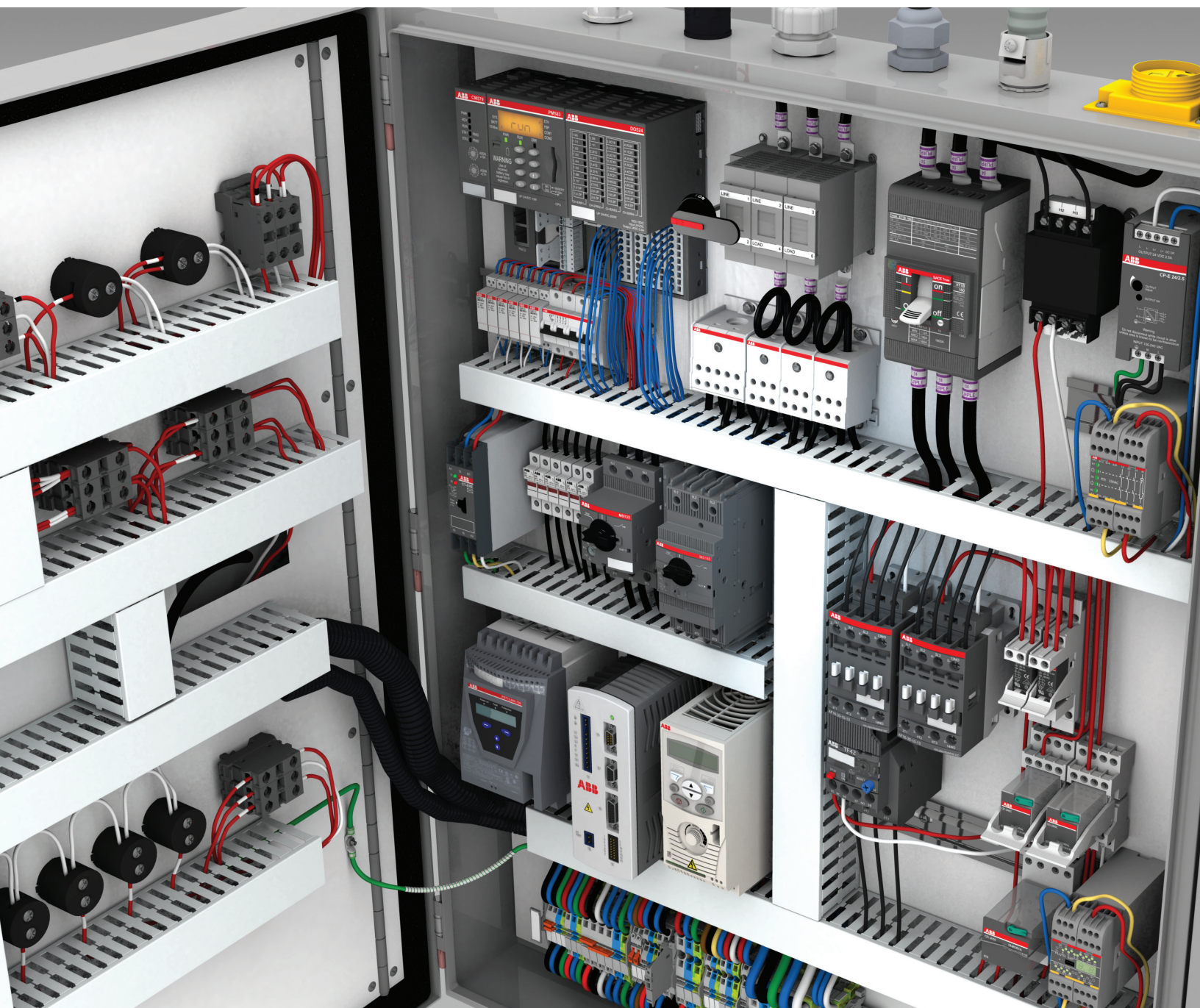
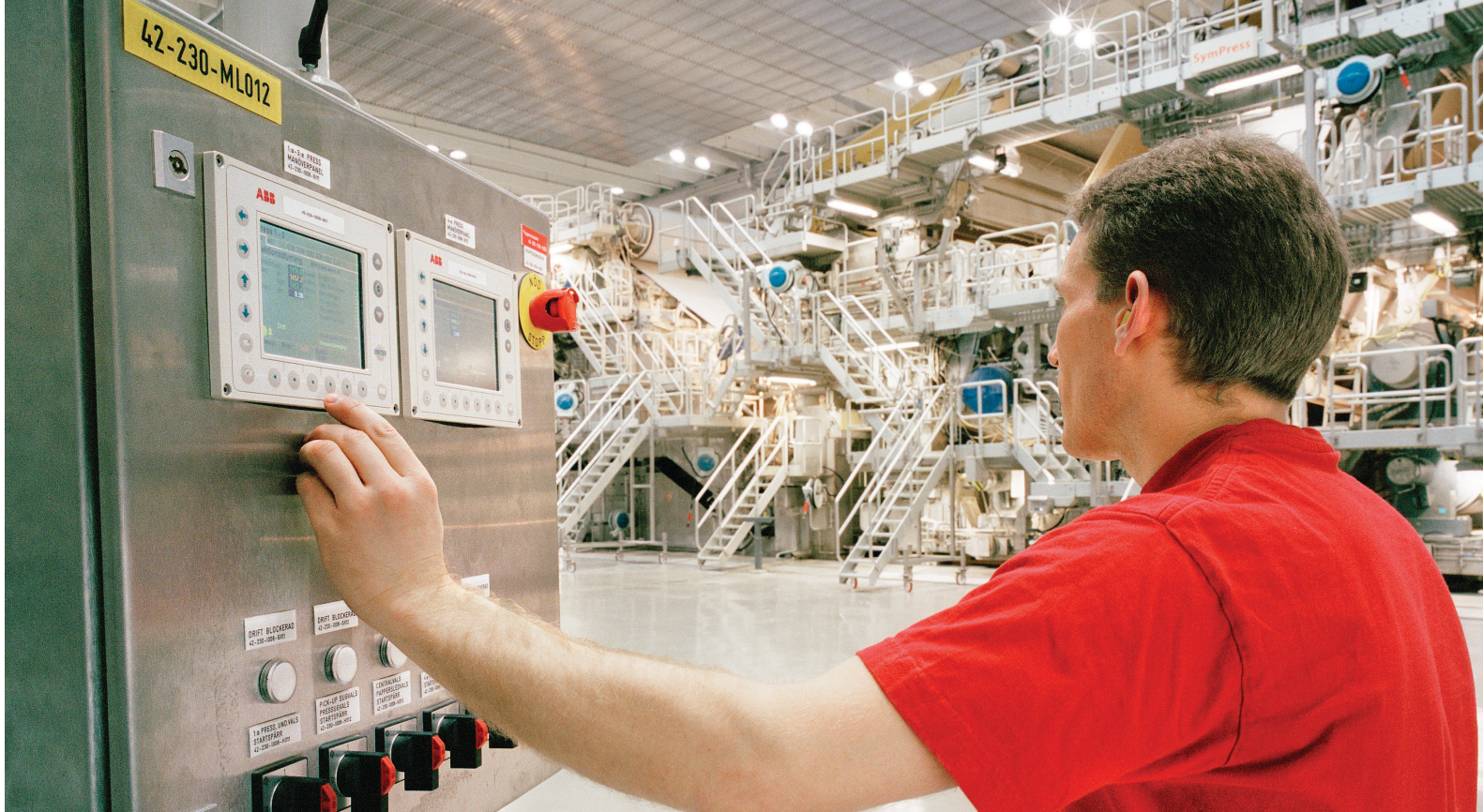


PANORAMA

ABB solutions for control panels

Capabilities guide





Why choose ABB as your preferred supplier of low voltage control products?

1. The most extensive product range from only one supplier

- Arc Guard System™
- Contactors and overloads
- DIN rail components
- Disconnects
- Enclosures
- Interface relays
- Limit switches
- Lugs
- Manual motor starters
- Miniature circuit breakers
- Molded case breakers
- Pin and sleeve connectors
- Pilot devices
- Power circuit breakers
- Power distribution
- Distribution bus systems
- Safety locks
- Safety relays and PLCs
- Safety switches
- Sensors
- Starters
- Surge protection devices
- Timers and monitors
- Universal motor controllers

2. ABB Ability™

- ABB Ability™ solutions deliver a safer, smarter, more sustainable electrical infrastructure by providing data-driven insights that enable you to reduce costs, increase comfort, and drive efficiency. With our solutions, you can unlock the full potential of your equipment by quickly and easily adding innovative new features and functionality references, all of which is supported by product training and a dedicated web portal.

3. The ease of product selection and installation

- Comprehensive selection tools and extensive technical documentation for easy specification and use
- Wide variety of product options — from economical to highly sophisticated — offering maximum value
- Products designed for safety, easy installation, set-up commissioning and maintenance
- Common style across product lines helps you create a cleaner panel design

4. Global support

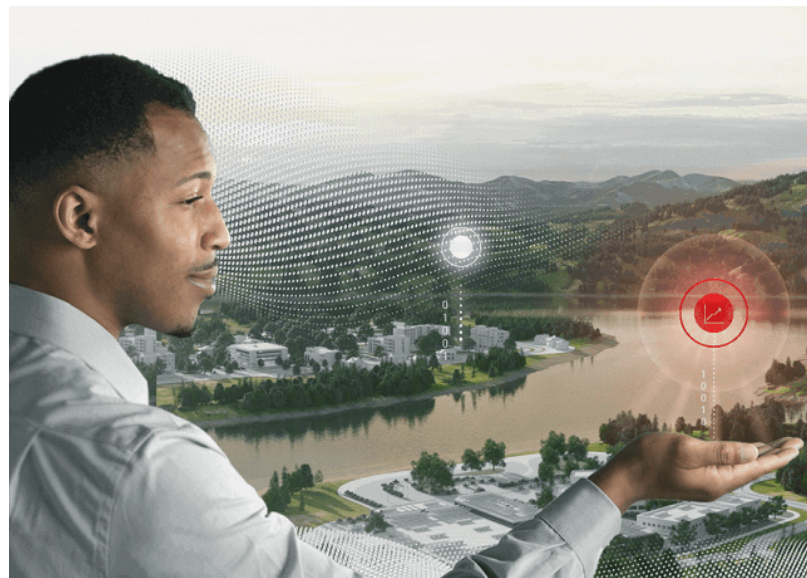
- ABB products are available in more than 100 countries, giving you the confidence of worldwide sourcing and support — no matter where you build and operate your equipment
- Global certifications to support your business worldwide
- One single partner to handle your support requirements

5. Ease of doing business

- Source for widest range of best-in-class products
- Pricing available 24x7x365 for qualified control panel partners
- Product selection tools, including configurators, cross references, product training and a dedicated web portal

6. Business efficiency resources

- Regulatory compliance assistance
- Priority support



1 Surge protective devices (SPDs)

SPDs are designed for long service life, protecting equipment from surges due to lightning strikes, upstream equipment and utility load switching. They are suitable for use in hospitals, data centers, renewable energy, water/wastewater treatment and other critical power applications.

- UL / CSA certified for Type 2 installations (enclosed component)
- OVR T2 DIN rail SPD for equipment protection; 15 and 40kA with replaceable MOV cartridges
- OVRH series (hardwired) protection up to 400kA



2 Miniature circuit breakers (MCBs)

ABB, the inventor of miniature circuit breaker technology, offers the largest selection of current-limiting, compact, DIN-rail mounted MCBs, including solutions for the wind and solar PV markets, for AC and DC applications. Thermal and magnetic trips are provided to cover both overcurrent and short-circuit faults.

- UL489, UL1077 and IEC
- 0.2 to 125A, up to 600V AC/DC and 50 kA short circuit protection
- Accessories—bus bars, auxiliary and signal contacts, shunt trip, under-voltage release and lock out/tag out



3 Manual motor starters

Manual motor starters can reduce panel space, installation time and cost. Applications include manual motor control, local motor disconnect, group installation and self-protected combination motor controllers.

- Up to 80A, 75 HP, and 65kA short circuit protection
- Self-protected type E and F (up to 65kA)
- Accessories include: connection sets, auxiliary contact blocks and shunt trips, power-feed blocks, undervoltage release and short circuit signaling contacts



4 Electronic relays and controls

ABB's assortment includes a wide range of products for switchgear and control gear for electrical equipment and automation of machinery and plants. These versatile products offer maximum security, economic efficiency and capacity. On-going development of the product range makes new applications possible.

- Timers
- Measuring and monitoring relays
- Sensor interface relays
- Universal motor control



5 Fuse holders

ABB offers a wide range of DIN rail mountable, CSA/UL approved IP20 fuse holders. They offer venting grooves and cooling chambers to improve heat dissipation, increasing the durability and reliability of the fuse holders. Our ergonomic flip hinge makes fuse replacement easier in small spaces even while wearing gloves. All models offer blown fuse indication for quick identification of fuse failures.

- Class J — up to 60A at 600V AC/DC
- Class CC — up to 30A at 600V AC/DC
- Midget 10 x 38mm — up to 30A at 600V AC/DC
- Photovoltaic PV — up to 30A at 1000VDC



6 Pilot devices

ABB offers four ranges of pilot devices for 22mm and 30mm diameter holes. The modular range, P9M and CR104P includes operator, holders, contacts and LED blocks that can be combined. The compact range offers all functions built into a single unit. Adapter rings enable use of 22mm pilot devices in 30mm diameter holes.

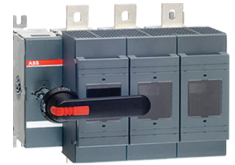
- IP66, IP67, IP69K and NEMA 1, 3R, 4, 4X, 12, 13
- Wiping contacts and integrated LEDs
- Standard and custom legend plate



7 Disconnect switches

ABB has a wide portfolio of low voltage switches that includes fusible, non-fusible, change-over and enclosed switches with ratings between 16...2000A for AC and 16...1000A for DC applications. These disconnects are suitable for machinery, power distribution, switchboards, motor control centers and photovoltaic applications.

- UL508 and UL98 Listed
- Compact size
- High performance
- Safe to use and easy to install
- The most complete offering of disconnects on the market



8 Tmax T / Tmax XT molded case circuit breakers (MCCBs)

Tmax MCCBs provide an extremely high level of performance with limited overall dimensions and installation simplicity. The Tmax line is available in ten sizes, a complete range of trip unit options and with a wide variety of electrical and mechanical accessories.

- Thermal magnetic and electronic versions
- Up to 3000A with up to 100kA of short circuit protection
- 240, 480, 600, 800Vac and 600...1000Vdc optimized solutions
- Fixed, plug-in or drawout
- Accessories include: motor operators, auxiliary and signal contacts, shunt trip, under-voltage release and bell alarms and various communication modules



9 Transformers

ABB Core and coil single phase transformers for machine tools are used to provide voltage to control devices in applications where regulation and minimum space are important. Welded cores provide the highest quality electrical performance and quiet operation

- 0.05 to 3 kVA
- Multiple primary AC voltages
- 12/24, 120/240 AC secondary voltages
- Optional field installable fuse carriers for primary and secondary fusing.



10 Power supplies

ABB's CP range of innovative primary switch mode power supplies provides compact construction, easy DIN rail mounting and high efficiency, reliability and safety. Accessories include buffer units, redundancy modules and more.

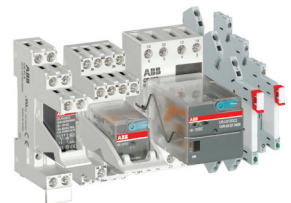
- 5, 12, 24 or 48 VDC output voltage with wide range of AC or DC supply voltages
- High efficiency, up to 94%
- Suitable for use in harsh industrial environments
- Open-circuit, overload and short-circuit proof input fuse



11 Ice cube and solid state relays

ABB's solid state and electromechanical relays ensure reliable voltage conversion between process peripherals and higher-level control systems. Suitable for use in extreme environments, our relays ensure reliable signal switching and electrical isolation for sensitive electronics such as PLCs. A wide variety of pluggable interface relays with standard or logic sockets can be used for switching AC or DC loads.

- Coil voltages from 5 VDC to 230 VAC
- Up to 16A contact ratings and up to four output contacts
- Pluggable function modules such as RC elements available
- Integrated test button for manual operation
- Gold-plated contacts available for lowest contact resistance



12 Safety products

ABB Jokab Safety provides an extensive range of innovative products and solutions for machine safety systems. These products save labour and components, simplify maintenance and troubleshooting and provide the highest level of safety.

- Safety relays, safety controllers and programmable safety controllers
- Light barriers, sensors, locks and control devices
- Machine fencing systems



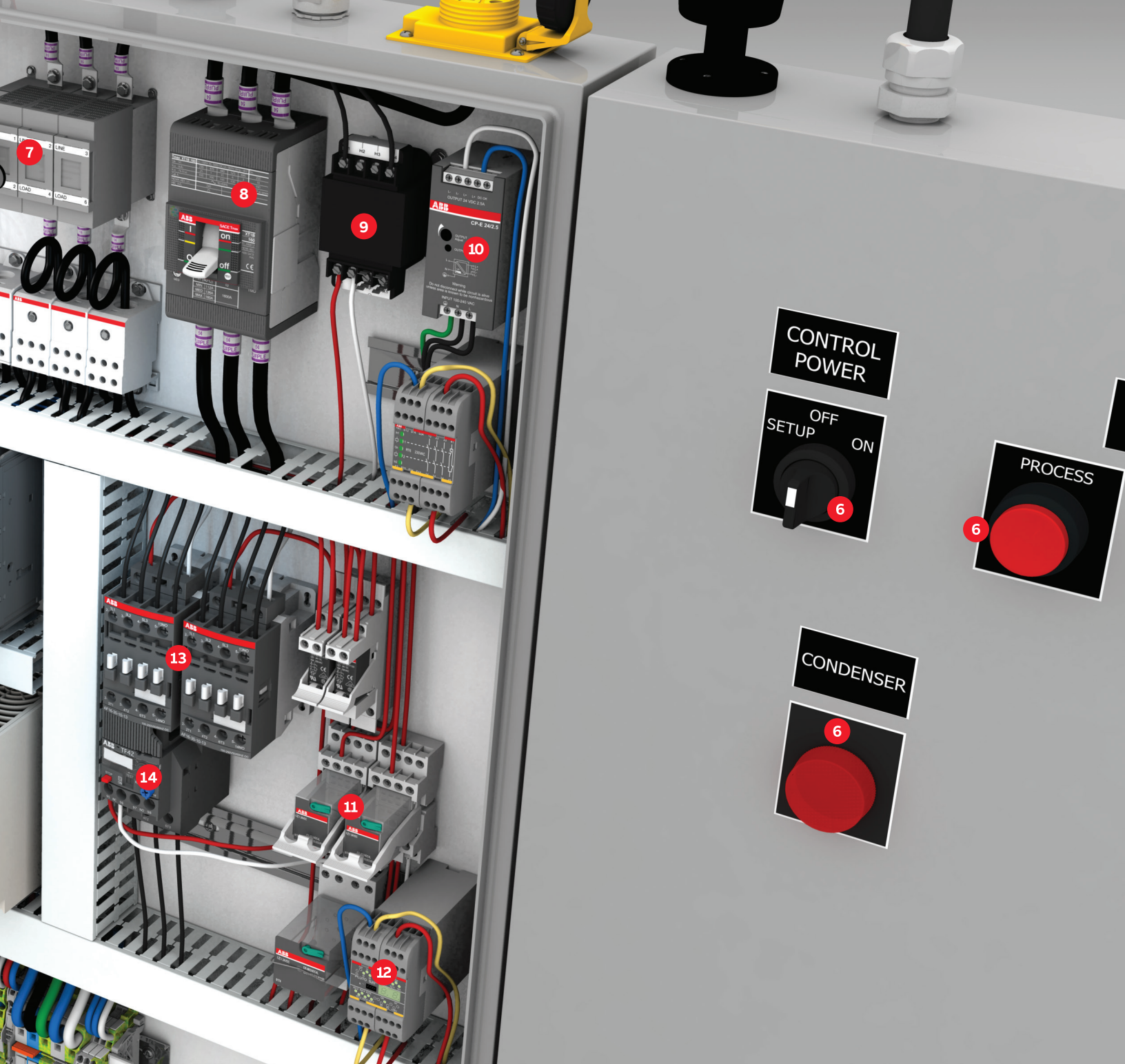


13 Contactors and overloads

ABB's AF contactors signify a major advancement in motor control and power switching. They come standard with electronic coils and built-in surge suppression. The AF contactors, along with ABB's short circuit and overload protective devices, provides the user with fully tested, CSA/UL listed Short Circuit Current Ratings (SCCR) motor combinations.

- CSA/UL general use and motor switching
- 9 to 2850A
- 7.5 to 1150 HP
- Up to 1000V
- 3P and 4P versions
- Accessories include: connection sets, auxiliary contact blocks, interlocking units, timers, electronic and thermal overload relays





14 Starters

ABB's starters can be used in most motor control applications using mechanical starting means as well as solid state.

- IEC and NEMA rated
- Combination tested to 200kA
- Enclosed and open styles



15 Softstarters

The ABB softstarter portfolio consists of three different ranges to cover almost all possible motor applications from 3 to 1250 amps and main voltages up to 600 VAC.

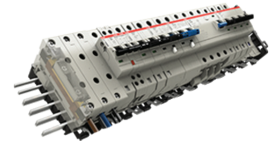
- PSR — compact, 3 to 105A
- PSE — efficient, 18 to 370A
- PSTX — advanced, 30 to 1250A
- A full line of enclosed softstarters is also available



SMISSLINE TP flexible power distribution bus system

Modular assembly allows for simple reconfiguration and maintenance, and reduces installation time drilling, taping wire connections, and space. Design changes and future expansion are easily accomplished by connecting additional devices.

- Certified for UL508 and UL489 applications
- 200A center-fed bus
- 0.5 to 63A
- Combination motor starters



Limit switches

With the broadest range of solutions on the market, ABB offers all components from position sensors via automation systems to complete control panels.

- Plastic and metal protection
- 30mm to 60mm width
- Complete safety line
- Three cable conduits
- Miniature pre-wired line
- Actuators: safety key, plunger, roller, adjustable lever, flexible rod and pull action



Emax 2 Power circuit breakers (PCBs)

Emax 2 PCBs provide the latest protection technology with ease of installation and use. They function as circuit breakers for general protection of plants end-user complexes and electric lines and as protection circuit breakers for generators, motors, transformers and capacitors, making them the ideal solution for designers, installers, OEMs and end users.

- 600 VAC
- Available in fixed and drawout styles
- Up to 6000A
- Up to 100kA of short circuit protection
- Accessories include: motor operators, auxiliary and signal contacts, shunt trip, under-voltage release, bell alarms and more



Circuit monitoring system (CMS)

The CMS is a compact system used for measuring performance of diverse AC and DC load currents to reduce downtime and detect potential issues before they occur. It is easy to use and has intuitive installation and configuration via integrated touch screen (CMS-600) or web client (CMS-700) in original installations or field retrofits.

- Open and closed core sensors up to 160A true RMS with up to 0.5% accuracy
- Up to 96 sensors can be monitored by one control unit
- Measured data can be accessed via Ethernet or polled via Ethernet or Modbus TRU protocol interface
- ABB Ability enabled



IEC 60309 international pin and sleeve devices

IEC 60309 international pin and sleeve devices provide safe, reliable and durable electrical connections for different kinds of industrial applications and work conditions.

- IP67 and IP69K rated watertight connections
- IP44 available on request
- Superior cable strain relief and cable detachment prevention
- Housed in flame safe (per UL 94) UV resistant (per UL 746c) material



Arc Guard System™

The ABB Arc Guard System protects people, equipment and productivity by quickly detecting an arc fault and tripping the incoming circuit breaker. Using light as the main condition, the unit trips instantaneously, overriding all other protection and delays, which are crucial when reaction times need to be measured in milliseconds. Up to 30 sensors can be connected with fiber optic cable to each monitoring unit.

- Fiber optic detection
- Pre-calibrated sensors
- Type 12 protection
- 30 optical detector inputs
- Optional current sensing unit



ABB - Campus Montréal.

800 Hymus Boulevard
Saint-Laurent, Quebec, Canada
H4S 0B5

Phone: 438-843-6000

Toll Free: 1-888-856-6266

www.abb.com/lowvoltage

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders and/or contracts, the agreed particulars shall prevail. ABB Inc. does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts - is forbidden without prior written consent of ABB Inc.

© Copyright 2020 ABB. All rights reserved.

