



## Our products in vertical markets

	Chemical processing	Civil infrastructure	Commercial and institutional	Food and beverage processing	Metals and mining	Oil and gas	Power generation	Pulp and paper processing	Renewable energy	Transmission and distribution	Water/ wastewater treatment facilities	Rail	OEM/panel builders/ system integrators	Crtical power/ data centers	Distribution equipment manufacturer, switchgear/ switchboard	Material handling	Packaging	General industrial manufacturing
Circuit breakers		,		•	,	·····	<del>,</del>		<del>,</del>	•				·•·······			,	
Tmax series molded case circuit breaker	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
15A to 3000A																		
Emax series air circuit breaker	•		•		•	•	•	•	•	•	•			•	•			
800A to 6000A																		<u>:</u>
FORMULA series 240V compact molded	•		•	•		•		•			•		•			•	•	•
case breaker																		
Disconnect switches					•	<b></b>	,		***************************************	g	***************************************				•			•
Open style				•	•	•		•			•		•		•	•		•
Enclosed style				•	•	•		•			•		•		•	•	•	•
Safety switches				•	•	•	•				•		•		•	•	•	•
Contactors/overloads/	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
manual motor protectors																		
Open & enclosed starters/combos		•		•	•	•		•			•		•			•	•	•
Softstarters				•	•	•		•			•		•			•		
Connectors, electronic products and relays				***************************************	,	<b></b>	,		***************************************	·····	•				,			•
Connections – terminal blocks/interfast				•	•	•	•	•	•	•	•	•	•	•		•	•	•
EPR - timers/monitors/relays			•	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Jokab Safety products	•			•	•	•		•	•		•	•	•			•	•	•
Pilot devices	•			•	•	•		•		•	•		•			•	•	•
Arc Guard System™	•		•	•	•	•	•	•	•			•	•	•	•	•	•	•
Mini circuit breakers				•	•	•	•	•	•		•	•	•	•	•	•	•	•
Surge protection devices	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
Modular DIN-rail mountable components	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			<u> </u>
Residual current devices	•		•	•	•	•	•	•	•	•	•	•	•	•	•			

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#### Circuit breakers

Disconnect switches
Contactors/overloads/
manual motor protectors
Open & enclosed starters/combos
Softstarters
Connections, electronic products
and relays
Jokab Safety products
Pilot devices
Arc Guard System™
Surge protection devices
Miniature circuit breakers
Modular DIN-rail
mountable components

Residual current devices

### Circuit breakers

#### Tmax molded case circuit breakers

Tmax molded case circuit breakers are characterized by an extremely high level of performance with limited overall dimensions and installation simplicity. The Tmax line is available in nine sizes, a complete range of trip units and a wide variety of electrical and mechanical accessories. Available in thermal magnetic and electronic versions, Tmax offers complete adaptability to solve any application need, supporting current up to 3000A, short circuit protection up to 150kA at 480 VAC, and voltage up to 600 VAC or 1000 VDC.



http://www.abb.com/product/us/9AAC100091.aspx

#### Emax air circuit breakers

Emax air circuit breakers provide innovative solutions that focus on the latest in protection technology, providing ease of installation and use. They can be used both as circuit breakers for general protection (of plants, of user complexes and of electric lines) and as protection circuit breakers for electrical machines (generators, motors, transformers and capacitors). Available in fixed and draw-out versions, Emax is the ideal solution for the growing requirements of designers, switchboard and switchgear manufacturers, installers, OEMs and end users, supporting current up to 6300A, short circuit protection up to 150kA, and voltage up to 600 VAC or 1000 VDC.

http://www.abb.com/product/us/9AAC100086.aspx

#### FORMULA 240V compact molded case circuit breakers

FORMULA compact molded case circuit breakers are designed for simplicity, quality and versatility. They offer quick and easy selection, multiple polarities for various applications, reduced depth and a complete line of accessories. The FORMULA family consists of two frame sizes for currents of up to 100A or 250A. Both are available in a fixed version with front terminals. The protection trip unit has fixed thermal and magnetic threshold values for putting the circuit breaker into service rapidly. The compact design eases installation and increases work space inside switchboards and panels, an advantage for OEMs, panel builders and installers.

http://www.abb.com/product/seitp329/1d36223a3102e4fac1257a9b003385da.aspx?productLanguage=us&country=US

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### Circuit breakers (cont.)

	Document Part #	Description	Link
TMAX Series molded case circuit breaker 15A to 3000A	1SXU210023D0201	Tmax T Generation: Low voltage molded case circuit breakers up to 1200 A UL 489 and CSA C22.2 Standard	link
	1SDC210028D0201	Tmax T8: Low voltage molded case circuit breaker up to 3000 A UL 489 and CSA C22.2 Standard	link
	1SDC001007D0202	Spare parts catalogue: Low voltage circuit breakers	link
EMAX Series Air Circuit Breaker 800A to 6000A	1SDC001001B0207	Panorama of the low voltage apparatus: Automatic moulded-case and air circuit-breakers	link
	1SDC007904L0201	SACE Tmax VF and Emax VF: Low voltage circuit-breakers for variable frequency applications	link
	V201212	Low voltage air circuit-breakers for direct current applications: Emax DC	link
Formula Series 240v Compact Molded Case Breaker	1SXU210022D0201	Formula Circuit Breaker Catalog	link
		Circuit breakers suggested stocking list	link

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Circuit breakers

#### Disconnect switches

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Jokab Safety products Pilot devices Arc Guard System™ Surge protection devices Miniature circuit breakers Modular DIN-rail mountable components

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### Disconnect switches

ABB has a wide portfolio of low voltage switches that includes: fusible, non-fusible, change-over, enclosed and cam switches with ratings between 16 and 3150 amps. Suitable for machinery, power distribution, switchboards, motor control centers and photovoltaic applications, these units offer high performance, compact size, easy installation and safe use, along with UL 508 and UL 98 Listing.



	Document Part #	Description	Link
Open style	1SXU301199X0201	folder - all switches	link
Enclosed style	1SXU301199X0201	see above	
Safety switches	1SXU301199X0201	see above	
	1SCC340010C0201	Enclosed switches, Heavy duty safety switches, Fusible and non-fusible	link
		Disconnect switches suggested stocking list	link

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Connections, electronic products

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## Contactors/overloads/ manual motor protectors

#### Contactors and overload relays

ABB's AF Range of contactors and overload relays is the new standard in motor control and power switching. Featuring electronically controlled coils with wide input voltage ranges, AF contactors establish a new industry benchmark. By helping to access global support, optimize logistics, simplify design and secure uptime, ABB's wide product offering provides the optimal solution, every time.



#### Manual motor protectors

Manual motor protectors can reduce panel space, installation time and cost. Applications include manual motor control, local motor disconnect, group installation and self-protected combination motor controllers. A wide variety of busbar, signaling contacts and coupling accessories for use with AF range contactors are available.

#### Literature

Document Part #	Description	Link
1SXU100109C0201	Motor protection and control: AF range contactors and overload relays	link
***************************************		
1SXU100110B0201	Motor protection and control: Manual motor starters, contactors and overload relays	link
	Contactors/overloads/manual motor protectors suggested stocking list	link

http://www.abb.us/product/us/9AAC100107.aspx?country=US

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### Open & enclosed starters/combos

ABB's starters can be designed for most motor control applications using mechanical starting means as well as solid state and incorporating many custom solutions as well.



#### Literature

Document Part #	Description	Link
1SXU133052C0201	Enclosed IEC and NEMA starters: Non-combination and combination motor controllers	link
1SXU133053L0201	Enclosed IEC and NEMA starters: Product overview leaflet	link
	Open & enclosed starters/combos suggested stocking list	link

http://www.abb.us/product/seitp329/26843f369997dcdec125736900609908.aspx?productLanguage=us&country=US

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#### **Products**

Circuit breakers Disconnect switches Contactors/overloads/ manual motor protectors Open & enclosed starters/combos

#### Softstarters

Connections, electronic products and relays Jokab Safety products Pilot devices Arc Guard System™ Surge protection devices Miniature circuit breakers Modular DIN-rail mountable components Residual current devices

### Softstarters

The ABB softstarter portfolio consists of three different ranges, making it possible to find a suitable softstarter for almost all possible applications and motor sizes up to 1800A. The softstarter family consists of the Compact PSR, the Efficient PSE and the Advanced PST(B) range. The range covers all motor applications from 3 amps to 1810 amps used in a main voltage between 208 and 600 VAC.



#### Literature

Document Part #	Description	Link
1SXU132009B0201	Softstarters — The complete range brochure panorama	Link
1SXU132174C0202	Softstarter Main Catalog	Link
	Softstarters suggested stocking list	link

http://www.abb.us/product/us/9AAC171541.aspx?country=US

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## Connections, electronic products and relays

#### Connections

As a specialist in connection devices for over 50 years, ABB offers one of the most comprehensive product ranges of terminal blocks on the market. ABB's terminal blocks meet a wide range of customer requirements: from small panel builders to large OEMs, from standard distribution and control panels to the most specialized applications in key industries such as energy, maritime, explosive atmospheres and traction. Choose from thousands of high quality standard terminal blocks and functions. Whatever your requirements are, you will find the connection products that fit your needs.

http://www.abb.us/product/us/9AAC124501.aspx?country=US

#### Electronic products and relays

ABB's electronic products and relays assortment includes a broad range of products that provide power, control and monitoring of electrical and automation equipment. These versatile products offer maximum efficiency and functionality at a variety of price points, adding value while meeting the customer's requirements. Products include: power supplies, timers, monitors, signal and data converters, relays and optocouplers, interface products, universal motor controllers and logic relays.

http://www.abb.us/product/us/9AAC100114.aspx?country=us



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Connections, electronic products and relays

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## Connections, electronic products and relays (cont.)

	Document Part #	Description	Link
Connections – Terminal Blocks/Interfast	1SNC160019C0202	SNA Series Terminal Blocks Main Catalog	link
	1SNK160027C0201	SNK Series Terminal Blocks Main Catalog	link
	1SNK215201R0000	SNK-TA-2 terminal block sample	
EPR - Timers/Monitors/ Relays	2CDC110004C0209	EPR Main Catalog 2013-2014	link
	1SXU110001B0201	EPR Panorama	link
		Connections, electronic products and relays suggested stocking list	link

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#### **Products**

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#### Jokab Safety products

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## Jokab Safety products

ABB Jokab Safety provides an extensive range of innovative products and solutions for machine safety systems. These products offer unique features that save labor and components. simplify maintenance and troubleshooting and provide the highest level of safety. Products include safety relays, safety PLCs, safety controllers and programmable safety controllers, light barriers, sensors, switches, process locks, control devices, machine fencing systems and modular panels



#### Literature

Document Part #	Description	Link
1SXU172020C0201	Machine safety systems and components	link
1SXU172019C0201	Safety contact mats	link
1SXU172023B0201	Pluto safety PLCs product overview	link
1SXU172021C0201	Quick guard modular safety fencing panels	link
1SXU172003C0201	Safety switches and emergency stops	link
1SXU172027B0201	Focus II safety light curtains and grids product overview	link
	Jokab Safety product fast facts — 1 page, front and back quick reference guide for promoting various safety products	link
	Jokab Safety products suggested stocking list	link

http://www.jokabsafetyna.com/

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#### Pilot devices

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### Pilot devices

ABB offers two ranges of pilot devices for 22mm diameter holes. The modular range includes operators, holders, contact blocks, lamp blocks and LED blocks that can be combined to provide the required function. A snap-on design reduces installation time, and spring-loaded tabs ensure that actuators and legend plates are in correct position. The compact range offers a flexible, economical solution with all functions built into a single unit for easy mounting and reduces stocking levels. The same 22mm pilot devices can be easily converted to fit 30mm diameter holes by using the 30mm adapter rings.



#### Literature

Document Part #	Description	Link
1SFC151004C0201	Pilot Devices the complete offering, Main Catalogue	link
1SFC151021E0201	Modular Sample Box	
1SFC151023E0201	Compact Sample Box	
1SFC151025E0201	Additional Products Box	
1SFC151029E0201	Joystick Sample Box	
	Pilot devices suggested stocking list	link

http://www.abb.us/product/us/9AAC100140.aspx?country=US

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#### Arc Guard System™

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### Arc Guard System™

The ABB Arc Guard System protects people and equipment and eliminates unnecessary production stops by quickly detecting an arc fault and tripping the incoming circuit breaker. Using light as the main condition, Arc Guard trips instantaneously, overriding all other protections and delays, which is 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.



#### Literature

Document Part #	Description	Link
1SXU170174B0201	Arc Guard System - TVOC-2 brochure	link
1SXU170173C0201	Arc Guard System - TVOC-2 catalogue	link

http://www.abb.us/product/seitp329/fba3d63030ce26b8c1256da4002f1614.aspx?productLanguage=us&country=US

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Modular DIN-rail

### Joslyn® surge protection devices

For over 50 years, the Joslyn® brand has been recognized as the leading name in power, signal and communications protection. The JSP family of products offers the best in surge protection performance and reliability with component-level fusing and optional advanced filter for enhanced ringing transient plus EMI/ RFI attenuation. The JSP is designed and tested to withstand surge currents in accordance with both ANSI/IEEE and IEC recommendations, plus it exceeds the safety requirements of UL 1449 3rd edition. Available in all standard US domestic and international voltages, plus power system configurations with surge ratings running from 60 to 400 kA, the JSP is the ideal choice for standard surge protection needs.



#### Literature

Document Part #	Description	Link
	Joslyn® FAQs	link
	Joslyn® SPD Glossary	link
	Joslyn® Shortform Catalog	link
	Quick Step Guide to Purchasing an SPD	link

http://www.tnbpowersolutions.com/jsp\_spd

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### Surge protection devices (cont.)

Surge protection devices (SPDs) are designed for a long service life, protecting valuable equipment from transient surges due to lightning strikes as well as surges from upstream equipment and utility load switching. They are suitable for protection of critical-power facilities such as hospitals and data centers, along with renewable energy, water/wastewater treatment and other manufacturing and commercial operations.



#### Literature

Document Part #	Description	Link
1SXU430204C0201 Rev A	SPD Catalog	link
1SXU430066L0201	SPD Info Tool	link
1SXU430090L0201	PV SPD info Tool	link
1SXU430030L0201	OVR NE12 Customer Story	link
OVR-PROMOBOX	UL1449 3rd Edition Surge Protective Device Sample Box	

http://www.abb.us/product/seitp329/2359d69bf7eaa242c1256ef40023ef7e.aspx

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### Miniature circuit breakers

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



Document Part #	Description	Link
2CDC002138D0201	System Pro M Compact Supplementary protector S 200 PR UL1077	link
2CDC002139D0201	System Pro M Compact Circuit Breaker SU 200 PR UL489	link
2CDC002168D0202	System Pro M Compact Miniature Circuit Breaker S 200 U and S 200 UP	link
S201-B16-CLR – UL1077 S200	Clear Sample	
S801S-C40-CLR - UL1077 S800	Clear Sample	
S201PR-K6OF – UL1077	Ring Tongue Terminal Mini Breaker Sample	
SU201PR-K6OF – UL489	Ring Tongue Terminal Mini Breaker Sample	
S200UDC-PROMOBOX	UL489 S200 DC Sample Box	
S200PRT-PROMOBOX	Ring Tongue Terminal Mini Breaker Sample Box	
SMPL3118	Mini Breaker and ProLine Breaker Samples	
	Mini Circuit Breakers - LPED suggested stocking list	link

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Modular DIN-rail mountable components

Surge protection devices Miniature circuit breakers

Residual current devices

## Modular DIN-rail mountable components

ABB's line of modular DIN-rail mountable components includes fuse holders and fuse disconnects, on-off switches, pushbuttons, indicator lights and more. These components are all designed for versatility in a variety of applications and for quick, easy installation.



#### Literature

Document Part #	Description	Link
2CSC444003B0202	E90 Catalog	link
2CCC441003C0201	E210 Catalog	link
E210-PROMOBOX	DIN Rail Mount Command Device Sample Box	
E90PV-PROMOBOX	PV Fuseholder Sample Box	

http://www.abb.us/product/us/9AAC100485.aspx?country=US

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Residual current devices

### Residual current devices

Residual current devices, or ground fault equipment protectors, are devices intended to provide protection of equipment against damaging line-to-ground currents by disconnecting all ungrounded conductors of the faulted circuit. By adding a residual current device to the system, ground faults are detected immediately, preventing serious damage.



#### Literature

Document Part #	Description	Link
2CSC423011B0202	GFEP Catalog	link
1SXU430091L0201	GFEP Info Tool	link
1SXU430092L0201	GFEP White Paper	link
F200-PROMOBOX	F200 Residual Current Device Sample Box	

http://www.abb.us/product/seitp329/049b745436e76d52c12572aa0050b93f.aspx?productLanguage=us&country=US

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1SXU000223N0