

Low Voltage Products

Breakers and Switches

Powerful, reliable, efficient products
for compressor applications

A powerful partner

ABB is a powerful partner in compressor applications, offering a broad range of breakers and switches that are designed to deliver value over their entire lifetime.

Technology leader with global reach

As an acknowledged technology leader, ABB has the resources to help customers meet even the greatest challenges. We can leverage our R&D expertise and experience to tailor products to exactly match the requirements for compressor applications, and work together with customers to develop entirely new solutions. Our in-depth understanding of different end-user industries and industrial processes, gives us the flexibility to implement projects of all types – from standard product supply to complex global projects.

Truly global player

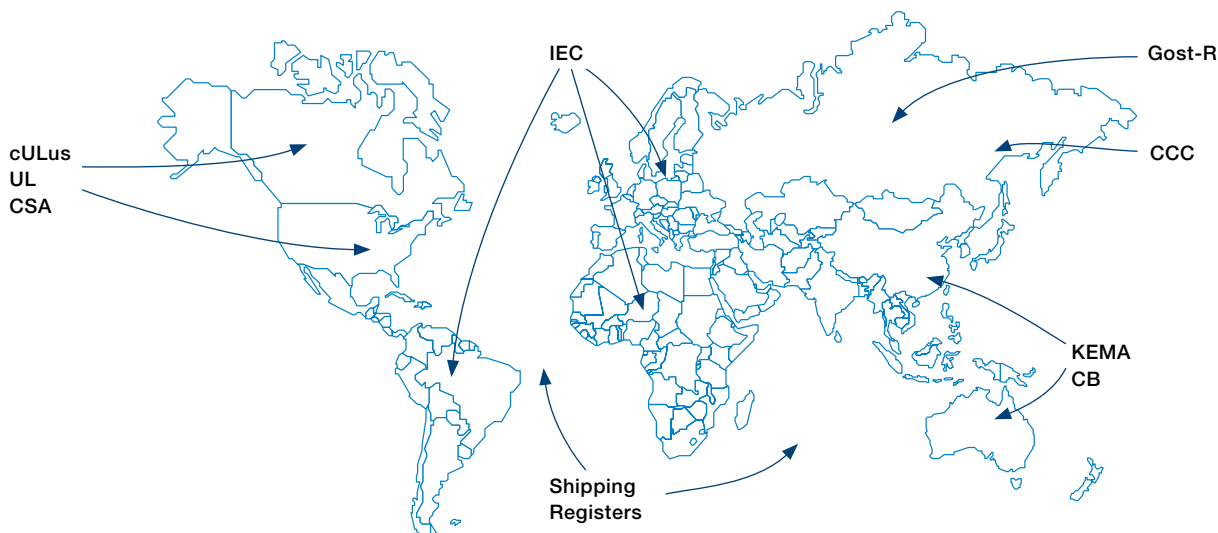
We are a truly global player. Global products and solutions ensure that the best materials and components, together with the latest technical innovations, are used at all ABB manufacturing plants. With a global manufacturing footprint, we can supply identical products in all markets around the world. Our experience in global business models enables us to support customers' businesses wherever they are located. We have a solid track record in working with frame agreements and other general sourcing models on very large projects, and we combine global reach with strong local presence to provide effective support in all significant markets.

World-class products backed by innovative services

We supply a wide range of switch-disconnectors, change-over switches, enclosed switches, switch fuses, moulded case circuit breakers, air circuit breakers and cam switches for compressor applications.

In addition to high quality and reliability, ABB products also deliver outstanding efficiency, helping to save energy and reduce CO₂ emissions. They meet the relevant standards, and we constantly monitor standards and official requirements around the world to ensure we can stay ahead of new developments. Our large installed base and extensive experience gives us the expertise to assist customers with issues like process optimization, efficiency maximization, effective use of breakers and switches, and many more.

ABB's back-up services takes the customer relationship to a new level. Innovative eBusiness systems mean that routine tasks such as checking stock availability, ordering, tracking order status, and accessing documentation can all be done quickly and easily online. Advanced logistics solutions ensure high availability and fast delivery of products, accessories and spare parts. Our extensive service organization enables us to provide lifetime support for our products no matter where in the world the customer is located.





Breakers and switches

ABB's circuit breakers provide the optimal solution for motor protection in the range 0.37 kW - 355 kW. These extremely compact units are particularly suitable in compressor applications where information on the status of the breaker or other data has to be transmitted remotely.

In fusible electrification systems, switch fuses provide superior short circuit protection up to 1250 A for voltages up to 690 V. Switch disconnectors are available up to 3150 A to ensure safe operation, protecting both people and equipment, and eliminating the risk of accidents. Enclosed switches in plastic and metal can be used for quick and safe local isolation of equipment during maintenance and repair.

Isolating the load from mains

Switch-disconnectors and change-over switches are typically used in isolating individual sections of the plant or as the main switch for the whole compressor system, both AC and DC. ABB's switches are compact in size, have high ratings, unique safety features and global availability and acceptability. ABB switch-disconnectors range from 16 to 3150 amperes and the change-over switches from 16 to 1600 amperes in AC-23 switching categories.

Local safety switches can be enclosed in plastic or metal enclosures for outdoor use up to protection class IP65. These products are typically used during maintenance to isolate individual sections or the whole system, and the switch can be mechanically secured in the open position by using padlocks.

Protection against short circuit and overload

ABB's circuit breakers can be used for starting, switching and protecting three-phase asynchronous motors. ABB proposes two different solutions for this type of application:

- **a traditional system**, with a circuit breaker for protection against short circuit, a thermal relay for protection against overload, missing or unbalanced phase and a contactor for motor switching
- **a system of integrated protection** with the PR222MP trip unit, which ensures both protection against short circuit and overload, as well as against missing or unbalanced phase and against rotor block

Fusible short circuit protection is provided by switch fuses with fuselinks of DIN, BS, NFC, UL and CSA types.

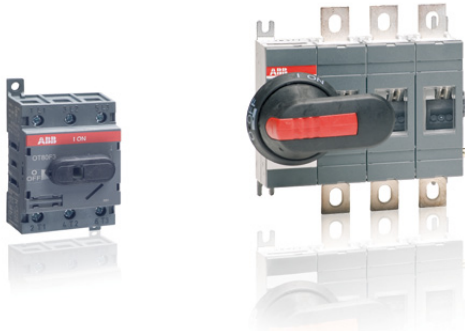


Commutation or control (start-stop)

The rotary cam switch range for control, instrumentation and motor starting applications provide you with a variety of functionalities for the most common mounting types, with minimum footprint area. The range covers a variety of applications, ON-OFF, change-over, bypass and multi-step.

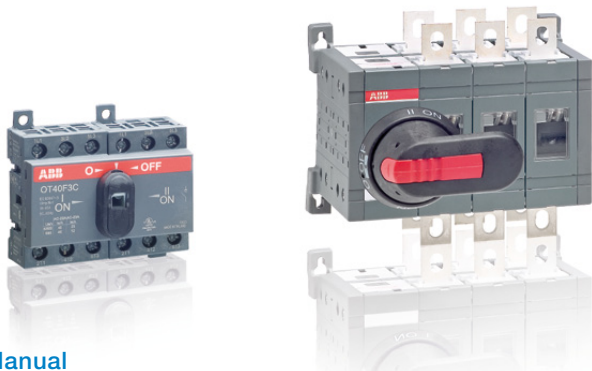
Isolating the load from mains

Switch-disconnectors from 16 to 2500 A



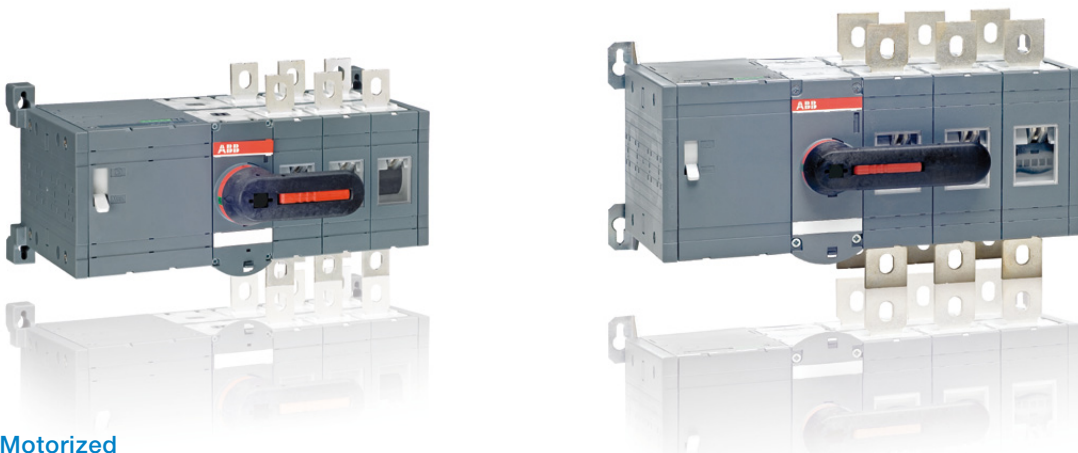
I_{th}/A		25		32		40		63		80		115		125		200		250		315		400		630		800		1000		1250		1600		2000		2500
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Change-over switches from 16 to 2500 A



Manual

I_{th}/A		25		32		40		63		80		100		115		125		160		200		250		315		400		630		800		1000		1250		1600		2000		2500
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Motorized

I_{th}/A		160		200		250		315		400		630		800		1000		1250		1600		2000		2500
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Isolating the load from mains

Enclosed switches from 16 to 1600 A

Side and front operated AC22A 400-690 V, IP65

Grey, black or red-yellow handle



Plastic

I_{th}/A | 16 | 25 | 40 | 63 | 80 | 125 | 160 | 200 | 250 | 315 | 400 | 570 | 720 |



Aluminum

I_{th}/A | 25 | 40 | 63 | 80 | 100 | 160 | 250 | 315 | 500 | 630 |



Steel sheet

I_{th}/A | 16 | 25 | 40 | 63 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 570 | 720 | 1000 | 1250 | 1600 |

Protection against short circuit and overload

Switch fuses from 16 to 1250 A



DIN fuse protection 100 kA

AC23/400 V/kW | 7.5 | 15 | 18.5 | 30 | 55 | 75 | 110 | 140 | 220 | 355 | 450 | 560 |

BS fuse protection 80 kA

AC23/400 V/kW | 7.5 | 15 | 30 | 55 | 75 | 110 | 145 | 180 | 230 | 355 | 450 | 560 |

Circuit-breakers from 160 to 800 A



$I_{cu} = 36 \text{ kA}$

A/415 V | 160 | 250 | 320 | 400 | 800 |

$I_{cu} = 50 \text{ kA}$

A/415 V | 160 | 250 | 320 | 400 | 800 |

$I_{cu} = 70 \text{ kA}$

A/415 V | 160 | 250 | 320 |

$I_{cu} = 85 \text{ kA}$

A/415 V | 160 |

$I_{cu} = 120 \text{ kA}$

A/415 V | 250 | 320 | 400 | 800 |

Commutation or start-stop

Cam switches from 10 to 315 A



[ON-OFF switches](#)
[Change-over switches](#)
[Bypass switches](#)
[Multistep switches](#)
[Motor control switches](#)
[Voltmeter switches](#)
[Ammeter switches](#)
[Volt-ammeter switches](#)
[Binarycode switches](#)

I_{th}/A | 10 | 25 | 45 | 63 | 80 | 150 | 175 | 315 |

More information and accessories in the technical catalogues:

Switch-disconnectors	OT_OETL 1GB_
Change-over switches	OTC1GB_
Enclosed switches	OT3GB_
Switch fuses	OS1GB_
Circuit-breakers	T_{max} T Generation
	QT7 Technical application papers

Contact us

ABB Oy

Low Voltage Switches

P.O. Box 622

FI-65101 Vaasa, Finland

Phone: +358 10 22 11

Fax: +358 10 22 45708

www.abb.com

ABB SACE S.p.A.

Low Voltage Breakers

Via Baioni, 35

I-24123 Bergamo, Italy

Phone: +39 035 395 111

Fax: +39 035 395 306-433

www.abb.com

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