The latest evolution in 90 years of safety innovation
System pro *M* compact® miniature circuit breakers acc. to UL

Power and productivity
for a better world™

We didn’t just change the market
We created it
ABB mini circuit breakers, 90 years of trust

Then….
In 1923, Hugo Stotz combined a thermal and magnetic trip unit in a single device that could be screwed into regular fuse sockets. Stotz’ invention opened a new world in electrical installation.

Now….
The next-generation ABB mini circuit breakers (MCBs) provide the highest safety solutions for nearly every electrical application and installation type—and meet all relevant standards worldwide.

System pro *M* compact® MCBs
Miniature circuit breakers protect installations against overload and short circuit to ensure reliability and safety for operations. They are selectively switchable, even under load, in the event of a fault or for maintenance purposes. Standstill periods are minimized, thanks to the devices’ reclosing capability.

- Residential, commercial and industrial
- Multifunctional platform, completely compatible for maximum value and flexibility
- Comprehensive, fully integrated range of easy-to-install MCBs and accessories

Quality and sustainability

Our MCBs are built to last 30 years or more. We achieve this through an uncompromising commitment to quality. We use only the finest components and materials. All materials comply with EU (RoHS, REACH) standards for sustainability and are halogen-free. Every unit is inspected three times before it leaves our facilities.

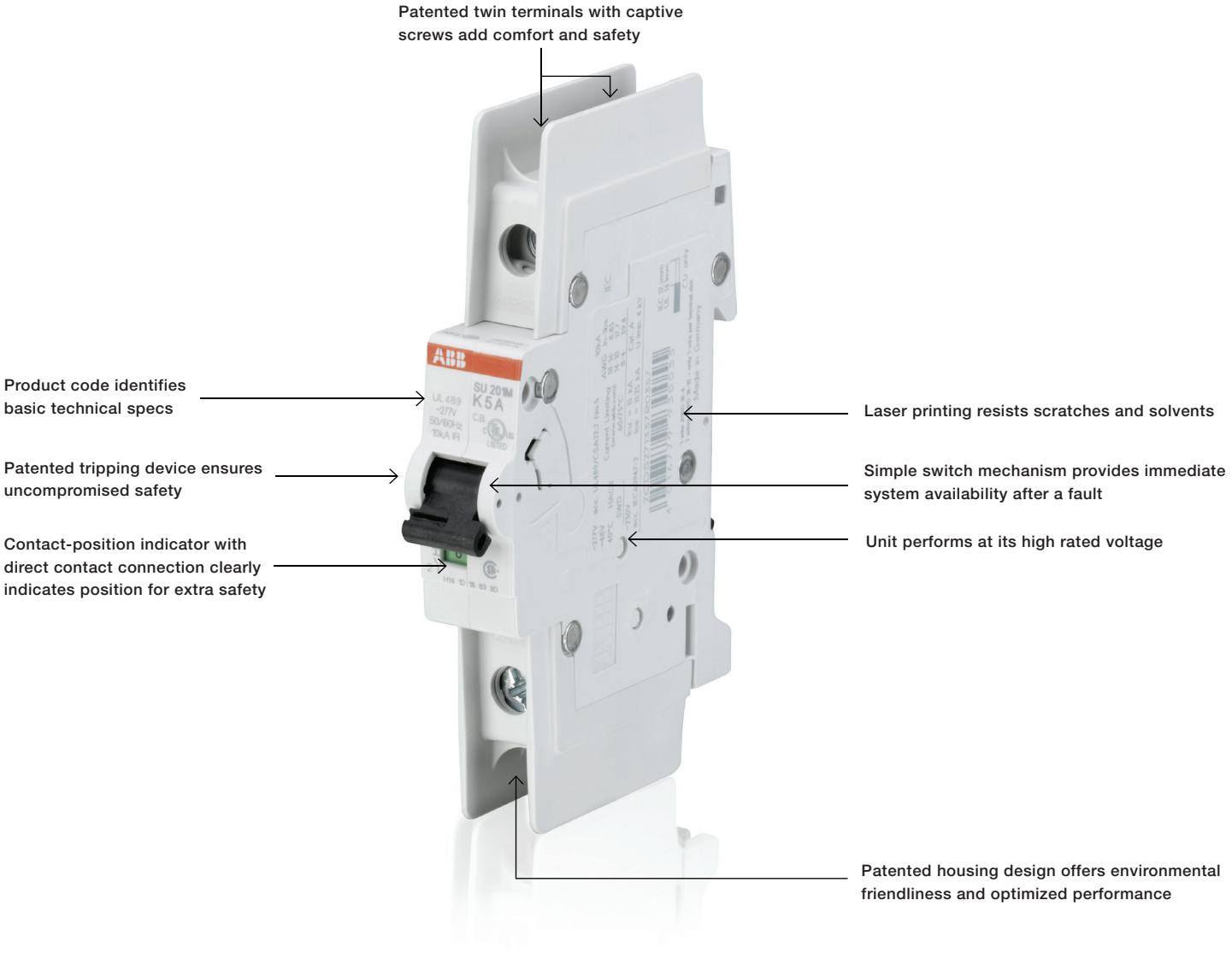
Our reputation for innovation, quality and performance is built into every ABB circuit breaker with these patented features:

Terminal. Extended size with insulation for IP20 protection and new pressure plate for improved conductor connection—easier to handle, safer to use

Contact design. With snap-action mechanism for improved arc movement and optimized switching

Switching mechanism. New design and assembly increases reliability of triggering—even under tough conditions

Tripping device. Optimized arc extinguishing system improves safety

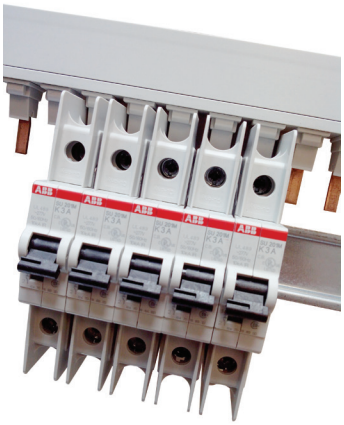


Details make the difference

System pro M offers a complete assortment of first-class quality products including a variety of miniature circuit breakers that provide the right solution when both size and performance matter.

PATENTED—
Maximum safety
Error-proof terminals

Open to all sides
Supply from top or bottom



PATENTED—
Comfort connection
Easy-to-use busbars

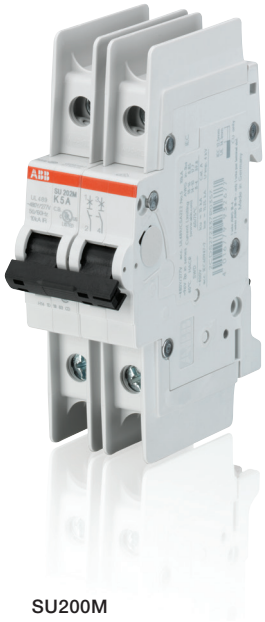
PATENTED—
Maximum flexibility
Combine cables and busbars

Product selection guide

Branch circuit protection per UL489

	SU200M	SU200PR	S200UDC	S800U
Voltage	480Y/277VAC (up to 40A, C and Z curve; 35A K curve); 240VAC 48 V DC (1p)/96VDC (2, 3, 4p)	480Y/277 V AC (up to 35A); 240 V AC	60 V DC (1p)/ 125 V DC (2, 3, 4p)	240 V AC
Amperage	0.5 (C, K curve) - 63A 0.2 (K curve) - 63A	0.2–35 A (480Y/277 V AC); 40–63 A (240 V AC)	1–63 A	10–100 A
Trip Curves	C, K, Z	K	K, Z	K, Z
SCCR Rating	10 kA	10 kA	14 kA	30 kA (1p); 50 kA (2, 3, 4p)
Ambient Temperature	-25 to 55 °C	-25 to +55 °C	-25 to +70 °C	-25 to +60 °C
Reference Temperature for Trip Characteristics	40 °C	25 °C	25 °C	25 °C
Mounting Position	any	any	any	any
Terminal	Failsafe bidirectional cylinder lift	Insulated crimp terminal; 12.2 mm (W) x M5 (int. dia.)	Failsafe bidirectional cylinder lift (polarity sensitive)	Failsafe lug or ringlug terminal (convertible)
Wire Range	18-4 AWG	18–4 AWG	18–4 AWG	14–2 AWG (up to 30 A); 1–8 AWG (40–100 A)

UL 489
The requirements of this standard cover molded-case circuit breakers, circuit breaker and ground-fault circuit-interrupters, fused circuit breakers, and accessory high-fault protectors. These circuit breakers are specifically intended to provide service entrance, feeder, and branch circuit protection in accordance with the National Installation Codes in Annex B, Ref. No.1. This standard also covers instantaneous-trip circuit breakers (circuit interrupters) specifically intended for use as part of a combination motor controller in accordance with the National Installation Codes in Annex B, Ref. No. 1.



SU200M

SU200PR

S200UDC

S800U

UL1077 information page

Supplemental protection per UL1077

	S200MUC	S200	S200P	S200PR
Voltage	250/500VDC; 480Y/277VAC	480Y/277 V AC; 60 V DC (1p)/ 125 V DC (2, 3, 4p)	480Y/277 V AC	480Y/277 V AC (1p, 277 V AC)
Amperage	0.2 - 63A (K curve) 0.5 - 63A (C, Z curve) 6 - 63A (B curve)	0.5–63 A (B curve, 6–63 A); (C curve, 3p, 1–63 A)	0.5–63A (B curve, 6–63 A); (K curve 0.2–63 A)	0.2–63 A
Trip Curves	B, C, K, Z	B, C, D, K , Z	B, C, D, K , Z	K
SCCR Rating	6kA (AC); 10kA (DC)	6 kA (AC); 10 kA (DC)	10 kA (up to 25 A); 6 kA (above 25 A)	10 kA
Ambient Temperature	-25 to +55 °C	-25 to +55 °C	-25 to +55 °C	-25 to +55 °C
Reference Temperature for Trip Characteristics	25 °C	25 °C	25 °C	25 °C
Mounting Position	any	any	any	any
Terminal	Failsafe bidirectional cylinder lift	Failsafe bidirectional cylinder lift	Failsafe bidirectional cylinder lift	Insulated crimp terminal; 12.2 mm (W) x M5 (int. dia.)
Wire Range	14-4 AWG	18–4 AWG	18–4 AWG	18–4 AWG

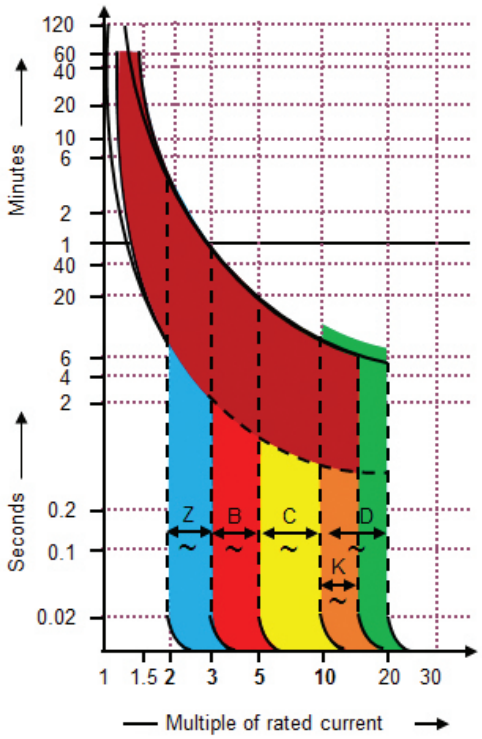
UL 1077
These requirements apply to supplementary protectors intended for use as overcurrent, or over- or under-voltage protection within an appliance or other electrical equipment where branch circuit overcurrent protection is already provided, or is not required. Compliance with this standard is acceptable for use as a component of an end product.

SU200MUC **S200** **S200P** **S200PR**

Trip curve information page

Trip curves are an essential part of the System pro M compact® miniature circuit breaker offering. Manufacturing tolerance of the short circuit tripping function allows a miniature circuit breaker to be selected according to the application. When selecting a trip curve for the application, load type and inrush current are driving factors in the selection process. System pro M compact® circuit breakers offer up to five trip curves to meet varying applications.

Below is a visual summary of the trip curves. (per standard) and typical load types, along with the tripping range as compared to the nominal current. The graph at the right provides a visual summary of the trip curves.



UL489

Z Curve
- 2 x In < ITripp < 3 x In (AC)
- 2 x In < ITripp < 4.8 x In (S200UDC)

C Curve
- 5 x In < ITripp < 10 x In (AC)

K Curve
- 10 x In < ITripp < 14 x In (AC)
- 10 x In < ITripp < 20 x In (S200UDC)

UL1077

Z Curve
- 2 x In < ITripp < 3 x In (AC)
- 2 x In < ITripp < 4.5 x In (DC)

B Curve
- 3 x In < ITripp < 5 x In (AC)
- 4 x In < ITripp < 7 x In (DC)

C Curve
- 5 x In < ITripp < 10 x In (AC)
- 7 x In < ITripp < 15 x In (AC)

D Curve
- 10 x In < ITripp < 20 x In (AC)
- 10 x In < ITripp < 21 x In (DC)

K Curve
- 10 x In < ITripp < 14 x In (AC)
- 10 x In < ITripp < 22.4 x In (DC)

Typical loads by trip curve

Z Curve
- Designed to protect circuits that need a very low short circuit trip setting
- Ex: Semiconductors

B Curve
- Designed for cable protection
- Ex: Control Circuits, Lighting

C Curve
- Designed for medium magnetic startups
- Ex: Lighting Panels, Control Panels

D and K Curves
- Designed to allow for high inrush loads
- Ex: Motor or Transformer Circuits

Contact us

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