



**pro M compact**  
 Supplementary Protectors  
 Miniature MCCBs

**The new generation of miniature circuit breakers.  
 System pro M compact S200 series.**

The new S200 series covers all your circuit breaker needs up to 63 amps. We have redesigned our popular supplementary protectors and have now introduced a brand new range of miniature molded case circuit breakers suitable for use as branch circuit protection according to UL 489/CSA C22.2 No.5.0.

Alongside the redesigned S200 supplementary protectors, the new S200 U and S200 UP miniature MCCBs offer the familiar ABB advantages; small size, excellent protection and easy installation.

S200 U and UP series are UL 489, CSA C22.2 No 5 approved as well as IEC 947. For the first time one circuit breaker fulfills North American and global approval requirements. Global circuit breakers for OEMs building global equipment.

By building on the proven technology of our supplementary protectors and introducing the new range of miniature MCCBs, ABB now offer a full solution of the highest quality that fits into the minimum space. This allows you to better meet the wishes of your customers by offering even more compact global solutions.

The new S200 series is the first truly compact and modular full circuit breaker solution for use in both North American and global markets.



## General information

Miniature circuit breakers (MCBs) are used throughout the world in all types of electrical installations. ABB MCBs are recognized by UL and CSA as supplementary circuit protectors in systems rated 240VAC and 480VAC.

MCBs are approved per IEC-898 and VDE 0641, and certified under IEC-947 and VDE 0660 standards for use in systems rated 415VAC.

MCBs can be applied to 16 2/3Hz – 400Hz and DC power systems.

Continuous current ratings are as low as 0.2 amperes and up to 63 amperes maximum.

MCBs are of compact size and can be quickly mounted on standard 35mm DIN rail or can be front mounted by use of a front mounting kit.

MCBs include line and load side terminals for conductors from 18 through 4AWG (0.75 – 25mm<sup>2</sup>).

MCBs can also be connected via busbar conductors which can be either upper or lower mounted for top feed or bottom feed. Dual function terminals allow busbars to be connected with main incoming line conductors without separate lugs.

## Accessories

Auxiliary devices can be added to S200 series MCBs:

- Shunt trips
- Auxiliary contacts
- Trip contacts
- Aux/trip contacts
- Undervoltage release

Accessory device modules can be field mounted to all above listed ABB MCBs.

## Applications

MCBs can be used for equipment protection, in commercial appliances, protection of control circuits against overcurrent faults, computer equipment and other computer peripheral devices.

### UL 489 / CSA C22.2 N° 5.0

S200U and S200UP MCBs are listed as molded case circuit breakers for use as branch circuit devices. MCCBs and accessories are listed under UL file E212323 and CSA file LR98793 certificate 1546332.

### UL 1077 / CSA C22.2 N° 235

S200 and S200P MCBs are recognized as supplementary protectors and are intended for use as overcurrent protection within an appliance or other electrical equipment where branch circuit overcurrent protection is already provided or not required. MCBs and accessories are recognized under UL File E76126 and CSA file LR98793 certificates 1530107 and 1546299.

## Tripping characteristics

### Time-current curves

ABB miniature circuit breakers are available with different trip characteristics, allowing for maximum system protection.

#### B characteristic

Available with the S200 series has rated currents of 6 through 63 amperes in 10 steps. The "B" time-current curve is designed primarily for use in cable protection applications. Instantaneous tripping occurs between approximately 3 to 5 times rated current in 50/60Hz systems. This quick trip curve maximizes protection of control circuits under low short circuit fault levels that could damage control wiring.

#### C characteristic

Available in the S200 series with rated currents up through 63 amperes. The "C" time-current curve is designed for medium magnetic start-up currents. Instantaneous tripping occurs between 5 and 10 times rated current in 50/60 Hz systems. The "C" characteristic is also available in other S2 series MCBs.

#### D characteristic

The new magnetic trip action has an instantaneous trip point of approximately 15 times the breaker rating. Thus, the S200-D can be a good protective solution for applications involving high in-rush transformers, motors and other high inductive systems. The 200-D is also suitable for any application where a high instantaneous trip point is desired. Available in the S200 series.

#### K characteristic

The "K" time-current characteristic considers high magnetic start-up currents from motors, transformers and other equipment. Instantaneous tripping occurs between 8 and 12 times rated current in 50/60Hz systems. The "K" characteristic is available up through 63 amperes.

The "K" curve offers the best protection for the broadest range of electrical systems. The higher magnetic trip settings maximizes protection while allowing for higher in-rush currents during system start-up. Available in the S200, S200U and S200UP series.

#### Z characteristic

Also available up through 63 amperes, the "Z" characteristic offers instantaneous tripping between 2 and 3 times rated current in 50/60Hz systems.

Many applications require a very low short circuit trip settings in order to protect semiconductor or other sensitive devices and the "Z" trip characteristic may provide maximum protection and service in these applications. Available in S200, S200U and S200UP.

# General information

## Interrupting ratings

## Trip characteristics overview

### Supplementary Protectors

#### Interrupting ratings

Voltage	Rated interrupting capacity	Rated current	MCB type	Comment
120 VAC	10kA	6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z	Single pole Single pole
240 VAC	10kA	6 - 63A 0.5 - 63A 6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z S200-B S200-C, D, K, Z	Single pole Single pole Multi pole Multi pole
277 VAC	6kA	6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z	Single pole Single pole
480Y/277 VAC	6kA	6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z	Multi pole Multi pole
60 VDC	10kA	6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z	Single pole Single pole
125 VDC	10kA	6 - 63A 0.5 - 63A	S200-B S200-C, D, K, Z	Multi pole Multi pole

#### Trip characteristics overview

Curve	Magnetic characteristic ①	Thermal characteristic	Series
B	3 - 5X	1.25X	S200
C	5 - 10X	1.25X	S200
D	10 - 20X	1.25X	S200
K	8 - 12X	1.05X	S200
Z	2 - 3X	1.05X	S200

① All values are relative to MCB's ampere rating.

### Miniature Molded Case Circuit Breakers

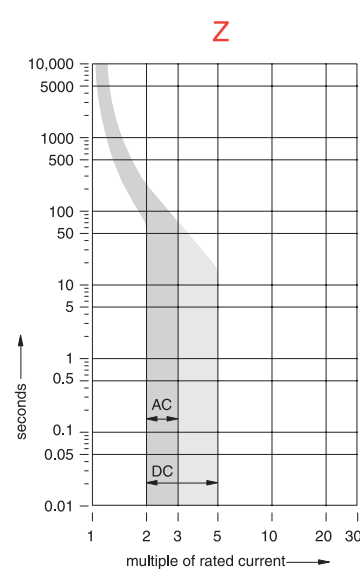
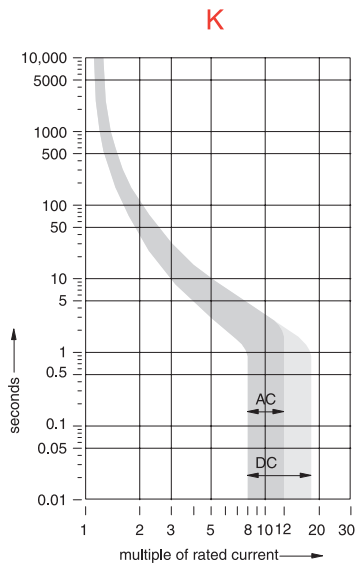
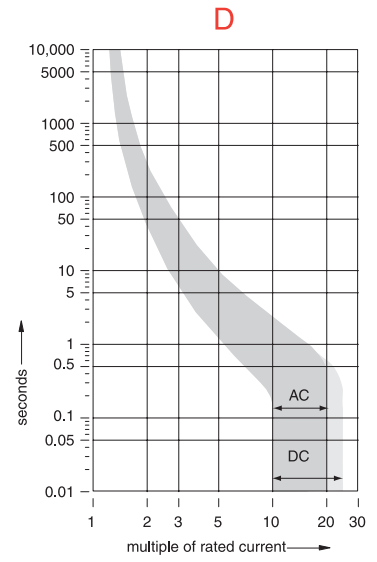
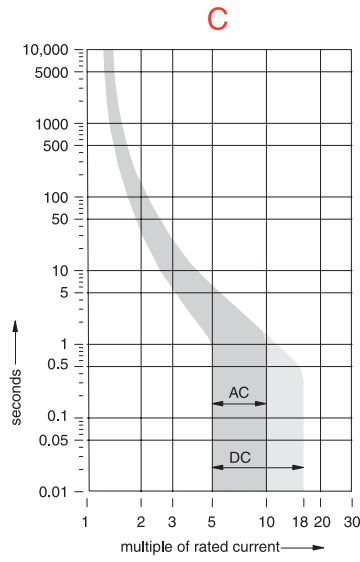
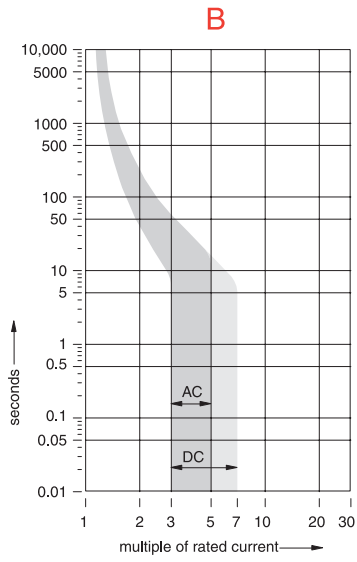
#### Interrupting ratings

Voltage	Rated interrupting capacity	Rated current	MCB type	Comment
120 VAC	10kA	0.2 - 63A 0.2 - 25A	S200U-K, Z S200UP-K, Z	Single pole Single pole
240 VAC	10kA	0.2 - 63A 0.2 - 63A 0.2 - 25A 0.2 - 25A	S200U-K, Z S200U-K, Z S200UP-K, Z S200UP-K, Z	Single pole Multi pole Single pole Multi pole
277 VAC	10kA	0.2 - 25A	S200UP-K, Z	Single pole
480Y/277 VAC	10kA	0.2 - 25A	S200UP-K, Z	Multi pole

# General information

## Tripping curves

### Supplementary Protectors



# General information

## Tripping curves

### Miniature MCCBs

#### S200U

ABB MCCB Type S200U - K 0,2A ... 63A  
(10 ... 17 x I<sub>n</sub>)  
Tripping Characteristic

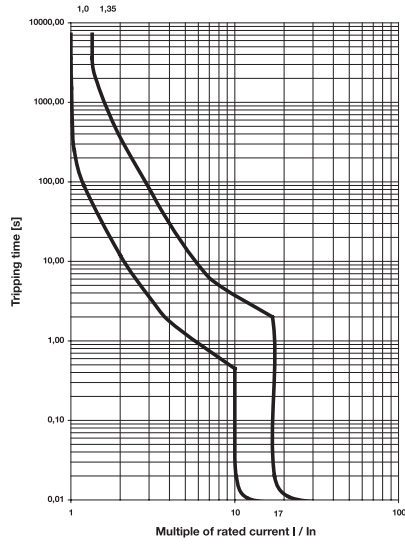
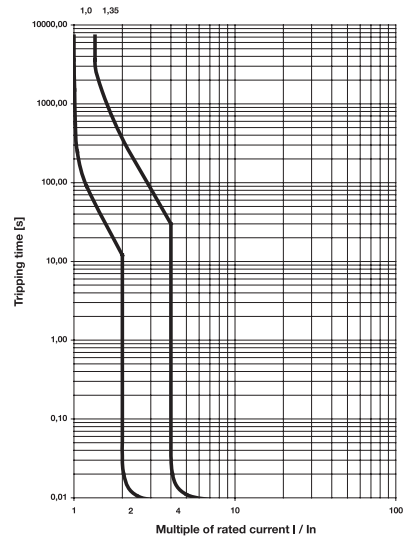


ABB MCCB Type S200U - Z 0,5A ... 63A  
(2 ... 4 x I<sub>n</sub>)  
Tripping Characteristic



#### S200UP

ABB MCCB Type S200UP - K 0,2A ... 25A  
(10 ... 17 x I<sub>n</sub>)  
Tripping Characteristic

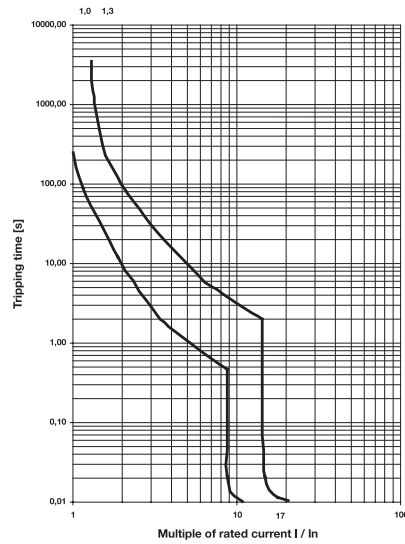
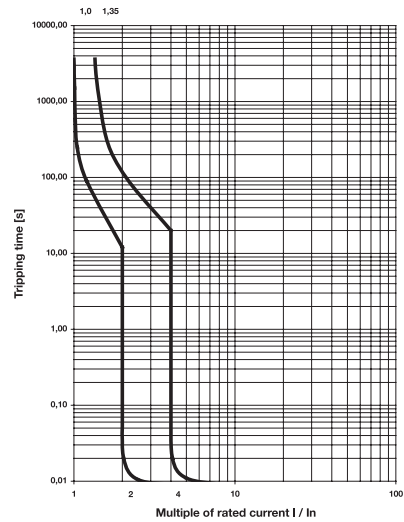


ABB MCCB Type S200UP - Z 0,5A ... 25A  
(2 ... 4 x I<sub>n</sub>)  
Tripping Characteristic



## General information

### Construction details

