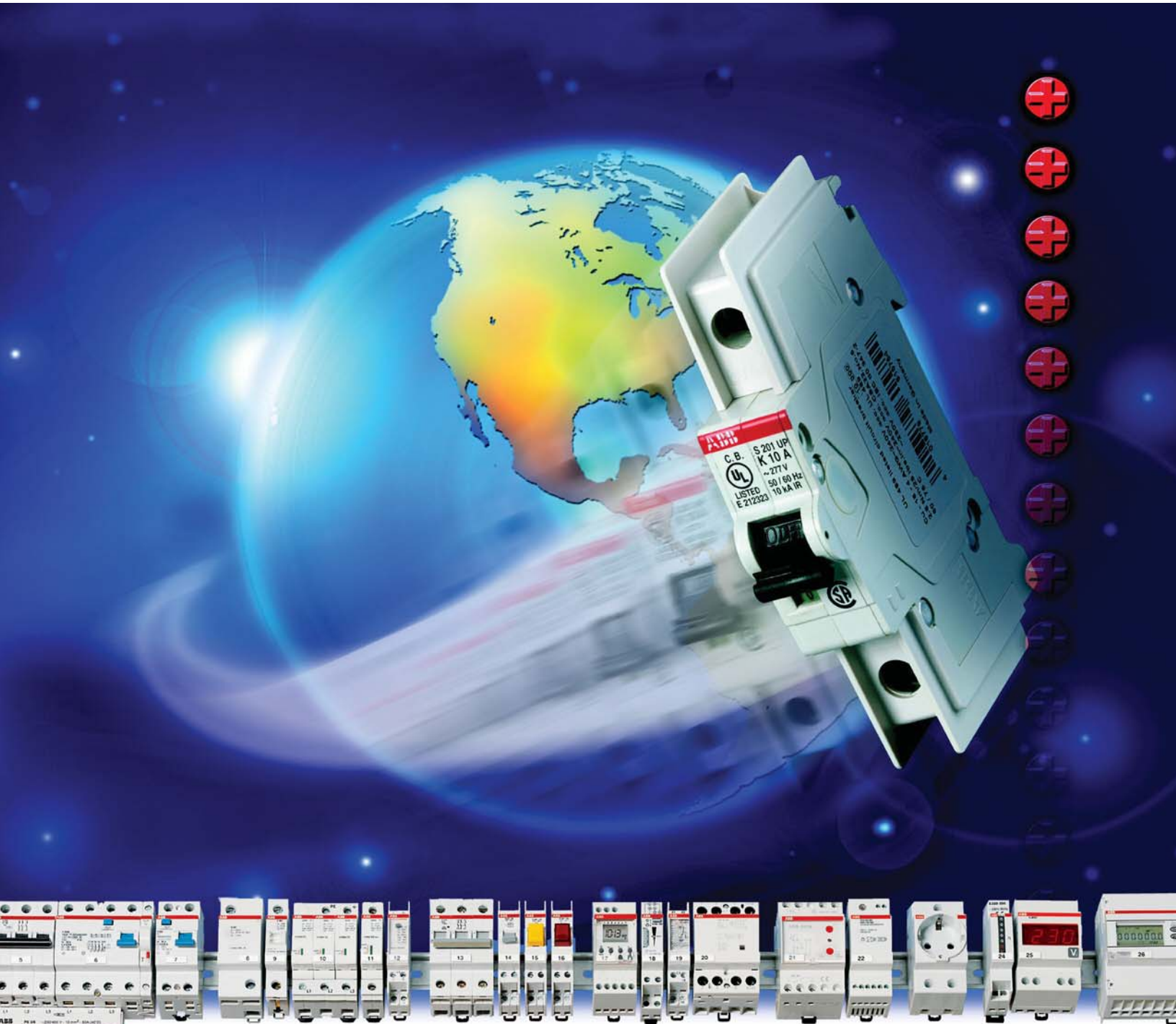


System **pro M compact**

Supplementary Protectors

Miniature MCCBs

AC1645



ABB

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pro M compact Supplementary Protectors Miniature MCCBs

pro M compact

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

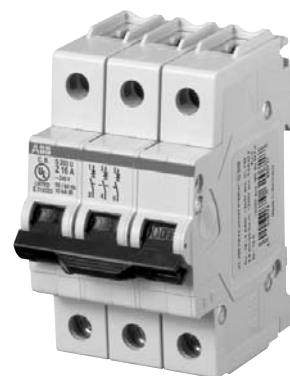
The new S200 series covers all your circuit breaker needs up to 63 amps. We have redesigned our popular supplementary protectors and have now introduced a brand new range of miniature molded case circuit breakers suitable for use as branch circuit protection according to UL 489/CSA C22.2 No.5.0.

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 – 25mm²).

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

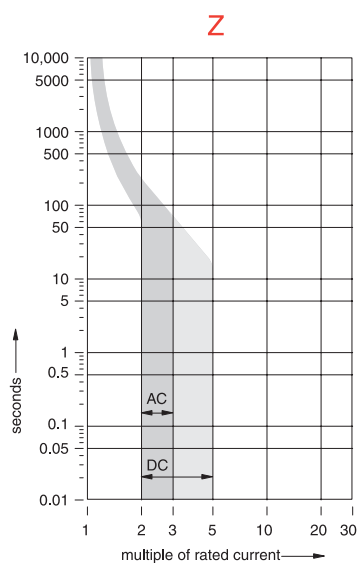
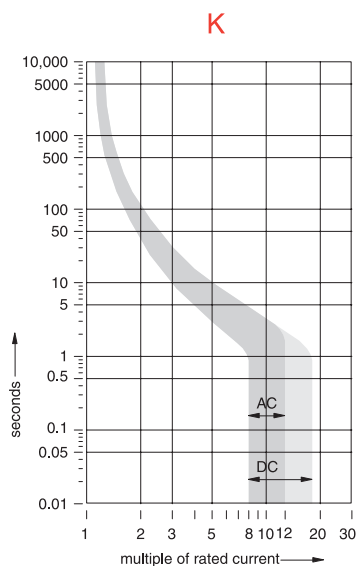
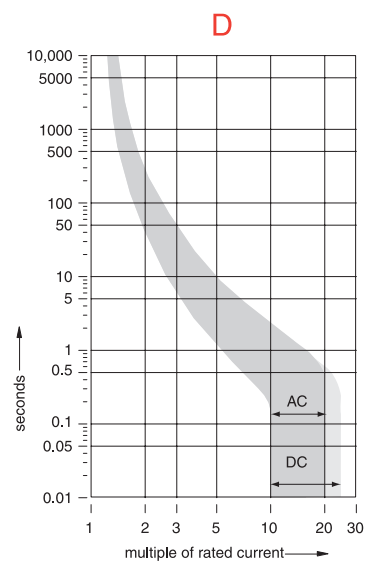
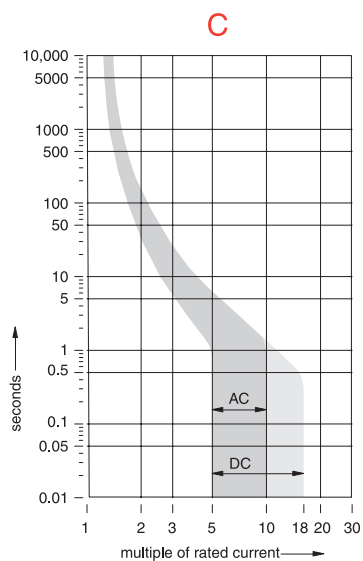
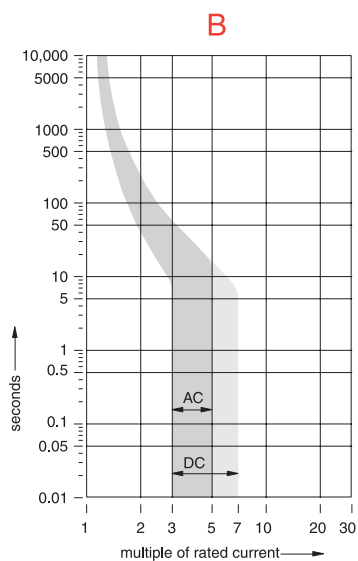
Interrupting ratings

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_n)
Tripping Characteristic

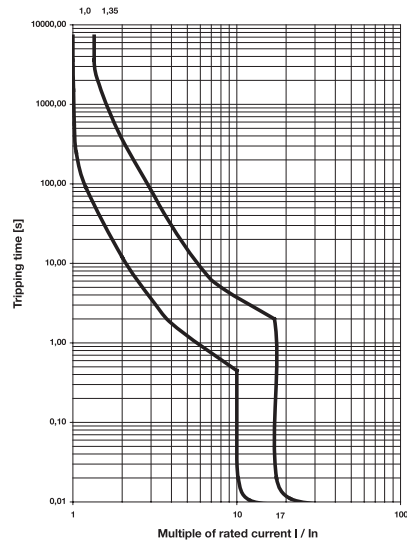
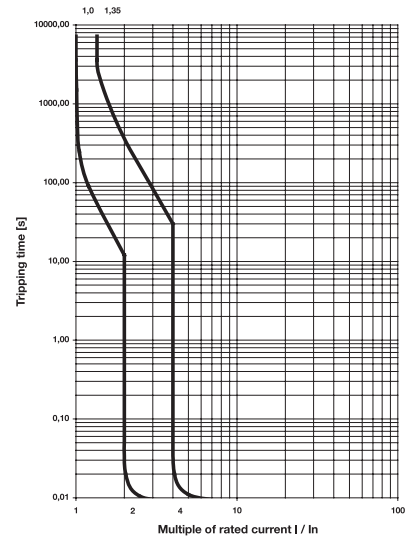


ABB MCCB Type S200U - Z 0,5A ... 63A
(2 ... 4 x I_n)
Tripping Characteristic



S200UP

ABB MCCB Type S200UP - K 0,2A ... 25A
(10 ... 17 x I_n)
Tripping Characteristic

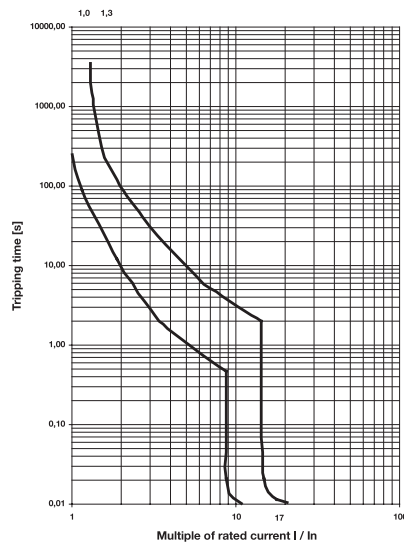
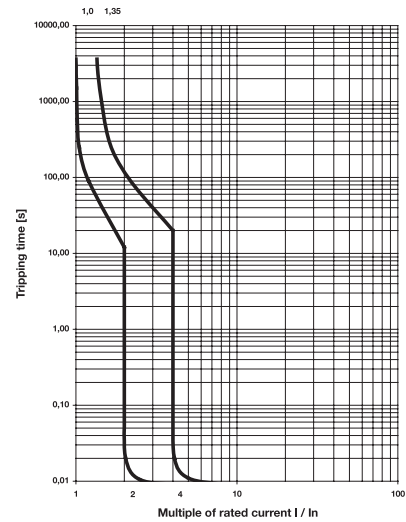
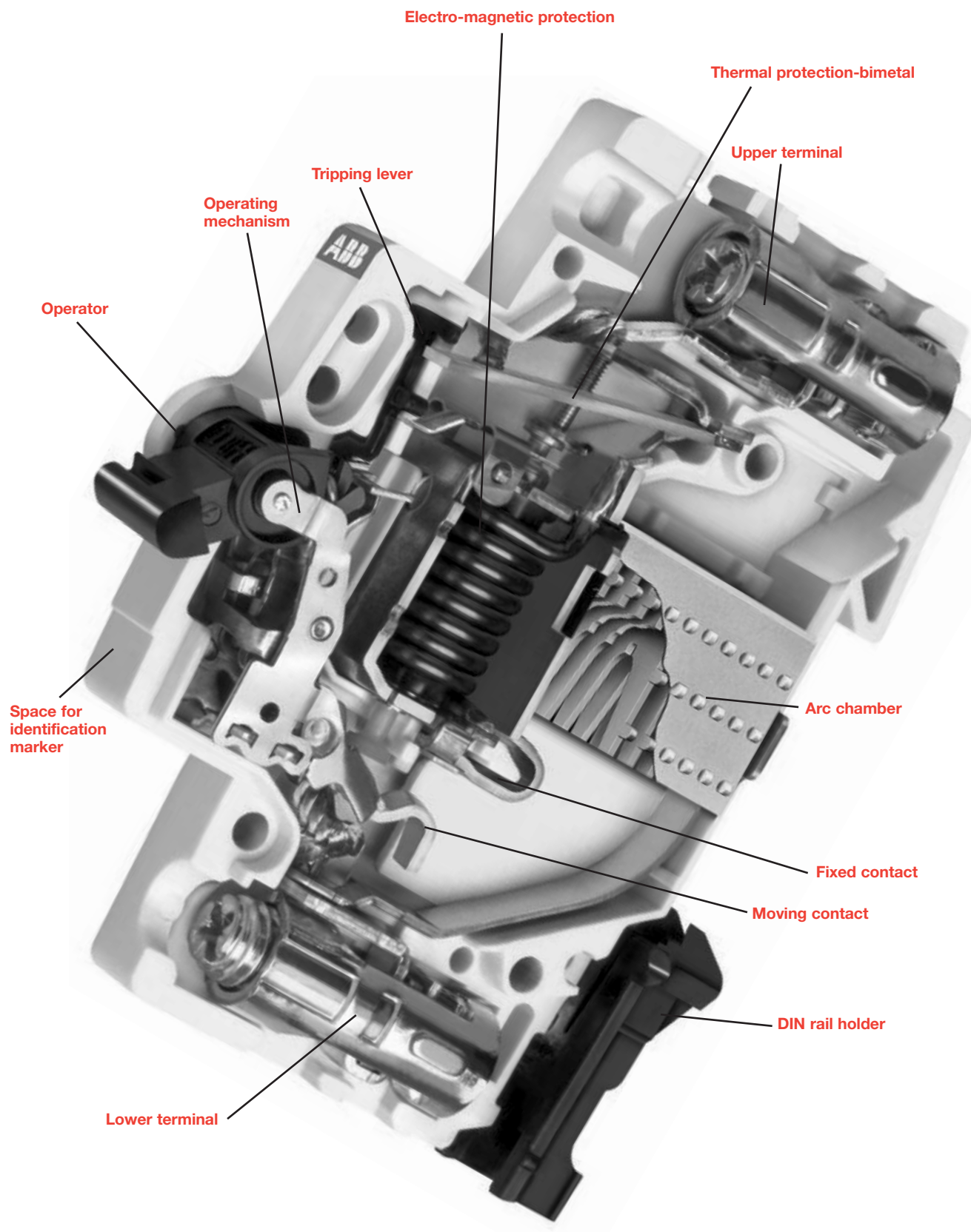


ABB MCCB Type S200UP - Z 0,5A ... 25A
(2 ... 4 x I_n)
Tripping Characteristic



General information

Construction details



S200

480Y/277VAC

Supplementary Protectors

S200
B

pro M compact

B UL 1077 CSA C22.2 N° 235
IEC-898/947-2
Cable protection



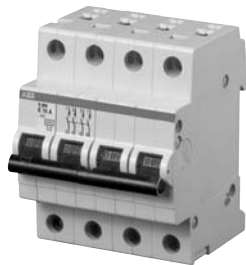
S201-B16



S202-B16

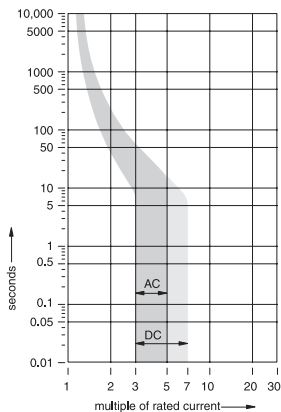


S203-B16



S204-B16

B



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
6	S201-B6				
10	S201-B10				
13	S201-B13				
16	S201-B16				
20	S201-B20		A	10	0.125
25	S201-B25				
32	S201-B32				
40	S201-B40				
50	S201-B50				
63	S201-B63				

1 pole + neutral					
6	S201-B6NA				
10	S201-B10NA				
13	S201-B13NA				
16	S201-B16NA				
20	S201-B20NA		C	5	0.250
25	S201-B25NA				
32	S201-B32NA				
40	S201-B40NA				
50	S201-B50NA				
63	S201-B63NA				

2 pole					
6	S202-B6				
10	S202-B10				
13	S202-B13				
16	S202-B16				
20	S202-B20		A	5	0.250
25	S202-B25				
32	S202-B32				
40	S202-B40				
50	S202-B50				
63	S202-B63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
6	S203-B6				
10	S203-B10				
13	S203-B13				
16	S203-B16				
20	S203-B20		A	1	0.375
25	S203-B25				
32	S203-B32				
40	S203-B40				
50	S203-B50				
63	S203-B63				

3 pole + neutral					
6	S203-B6NA				
10	S203-B10NA				
13	S203-B13NA				
16	S203-B16NA				
20	S203-B20NA		C	1	0.500
25	S203-B25NA				
32	S203-B32NA				
40	S203-B40NA				
50	S203-B50NA				
63	S203-B63NA				

4 pole					
6	S204-B6				
10	S204-B10				
13	S204-B13				
16	S204-B16				
20	S204-B20		C	1	0.510
25	S204-B25				
32	S204-B32				
40	S204-B40				
50	S204-B50				
63	S204-B63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S200
C

S200

480Y/277VAC

Supplementary Protectors

pro M compact

C UL 1077 CSA C22.2 - N° 235
IEC-898/947-2
Cable & equipment protection



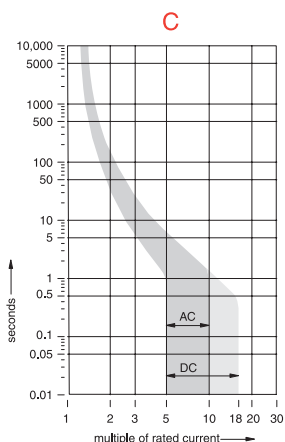
S201-C16



S202-C16



S203-C16



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201-C0.5				
1	S201-C1				
1.6	S201-C1.6				
2	S201-C2				
3	S201-C3				
4	S201-C4				
6	S201-C6				
8	S201-C8				
10	S201-C10		B	10	0.125
13	S201-C13				
16	S201-C16				
20	S201-C20				
25	S201-C25				
32	S201-C32				
40	S201-C40				
50	S201-C50				
63	S201-C63				

1 pole + neutral					
0.5	S201-C0.5NA				
1	S201-C1NA				
1.6	S201-C1.6NA				
2	S201-C2NA				
3	S201-C3NA				
4	S201-C4NA				
6	S201-C6NA				
8	S201-C8NA				
10	S201-C10NA		C	5	0.250
13	S201-C13NA				
16	S201-C16NA				
20	S201-C20NA				
25	S201-C25NA				
32	S201-C32NA				
40	S201-C40NA				
50	S201-C50NA				
63	S201-C63NA				

2 pole					
0.5	S202-C0.5				
1	S202-C1				
1.6	S202-C1.6				
2	S202-C2				
3	S202-C3				
4	S202-C4				
6	S202-C6				
8	S202-C8				
10	S202-C10		B	5	0.250
13	S202-C13				
16	S202-C16				
20	S202-C20				
25	S202-C25				
32	S202-C32				
40	S202-C40				
50	S202-C50				
63	S202-C63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.5	S203-C0.5				
1	S203-C1				
1.6	S203-C1.6				
2	S203-C2				
3	S203-C3				
4	S203-C4				
6	S203-C6				
8	S203-C8				
10	S203-C10		B	1	0.375
13	S203-C13				
16	S203-C16				
20	S203-C20				
25	S203-C25				
32	S203-C32				
40	S203-C40				
50	S203-C50				
63	S203-C63				

3 pole + neutral					
0.5	S203-C0.5NA				
1	S203-C1NA				
1.6	S203-C1.6NA				
2	S203-C2NA				
3	S203-C3NA				
4	S203-C4NA				
6	S203-C6NA				
8	S203-C8NA				
10	S203-C10NA		B	1	0.500
13	S203-C13NA				
16	S203-C16NA				
20	S203-C20NA				
25	S203-C25NA				
32	S203-C32NA				
40	S203-C40NA				
50	S203-C50NA				
63	S203-C63NA				

4 pole					
0.5	S204-C0.5				
1	S204-C1				
1.6	S204-C1.6				
2	S204-C2				
3	S204-C3				
4	S204-C4				
6	S204-C6				
8	S204-C8				
10	S204-C10				
13	S204-C13				
16	S204-C16				
20	S204-C20				
25	S204-C25				
32	S204-C32				
40	S204-C40				
50	S204-C50				
63	S204-C63				

Delivery Class

A - Standard item, stock to 2 weeks lead time
B - Stock to 4 weeks lead time
C - 6 to 8 week lead time

S200

480Y/277VAC

Supplementary Protectors

S200
D

D UL 1077 CSA C22.2 - N° 235
IEC-898/947-2
Cable & equipment protection



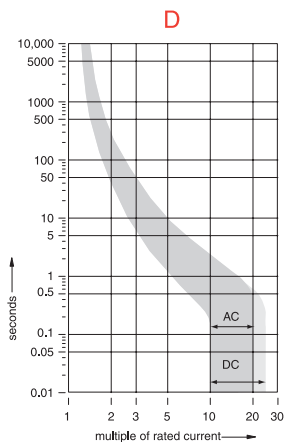
S201-D16



S202-D16



S203-D16



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201-D0.5				
1	S201-D1				
1.6	S201-D1.6				
2	S201-D2				
3	S201-D3				
4	S201-D4				
6	S201-D6				
8	S201-D8				
10	S201-D10		B	10	0.125
13	S201-D13				
16	S201-D16				
20	S201-D20				
25	S201-D25				
32	S201-D32				
40	S201-D40				
50	S201-D50				
63	S201-D63				

1 pole + neutral					
0.5	S201-D0.5NA				
1	S201-D1NA				
1.6	S201-D1.6NA				
2	S201-D2NA				
3	S201-D3NA				
4	S201-D4NA				
6	S201-D6NA				
8	S201-D8NA				
10	S201-D10NA		C	5	0.250
13	S201-D13NA				
16	S201-D16NA				
20	S201-D20NA				
25	S201-D25NA				
32	S201-D32NA				
40	S201-D40NA				
50	S201-D50NA				
63	S201-D63NA				

2 pole					
0.5	S202-D0.5				
1	S202-D1				
1.6	S202-D1.6				
2	S202-D2				
3	S202-D3				
4	S202-D4				
6	S202-D6				
8	S202-D8				
10	S202-D10		B	5	0.250
13	S202-D13				
16	S202-D16				
20	S202-D20				
25	S202-D25				
32	S202-D32				
40	S202-D40				
50	S202-D50				
63	S202-D63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.5	S203-D0.5				
1	S203-D1				
1.6	S203-D1.6				
2	S203-D2				
3	S203-D3				
4	S203-D4				
6	S203-D6				
8	S203-D8				
10	S203-D10		B	1	0.375
13	S203-D13				
16	S203-D16				
20	S203-D20				
25	S203-D25				
32	S203-D32				
40	S203-D40				
50	S203-D50				
63	S203-D63				

3 pole + neutral					
0.5	S203-D0.5NA				
1	S203-D1NA				
1.6	S203-D1.6NA				
2	S203-D2NA				
3	S203-D3NA				
4	S203-D4NA				
6	S203-D6NA				
8	S203-D8NA				
10	S203-D10NA		C	1	0.500
13	S203-D13NA				
16	S203-D16NA				
20	S203-D20NA				
25	S203-D25NA				
32	S203-D32NA				
40	S203-D40NA				
50	S203-D50NA				
63	S203-D63NA				

4 pole					
0.5	S204-D0.5				
1	S204-D1				
1.6	S204-D1.6				
2	S204-D2				
3	S204-D3				
4	S204-D4				
6	S204-D6				
8	S204-D8				
10	S204-D10		C	1	0.500
13	S204-D13				
16	S204-D16				
20	S204-D20				
25	S204-D25				
32	S204-D32				
40	S204-D40				
50	S204-D50				
63	S204-D63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

pro M compact

S200
K

S200

480Y/277VAC

Supplementary Protectors

pro M compact

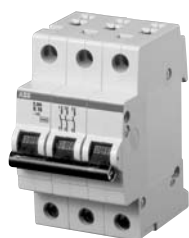
K UL 1077 CSA C22.2 - N° 235
IEC-947-2
Cable & equipment protection



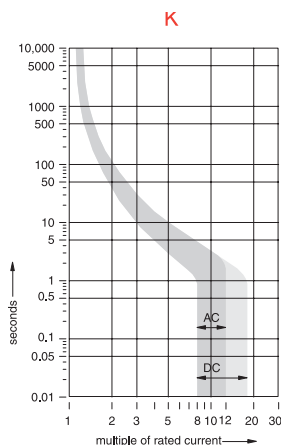
S201-K15



S202-K15



S203-K15



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201-K0.5				
1	S201-K1				
1.6	S201-K1.6				
2	S201-K2				
3	S201-K3				
4	S201-K4				
5	S201-K5				
6	S201-K6				
8	S201-K8		A	10	0.125
10	S201-K10				
13	S201-K13				
15	S201-K15				
16	S201-K16				
20	S201-K20				
25	S201-K25				
30	S201-K30				
32	S201-K32				
40	S201-K40				
50	S201-K50				
60	S201-K60				
63	S201-K63				

1 pole + neutral					
0.5	S201-K0.5NA				
1	S201-K1NA				
1.6	S201-K1.6NA				
2	S201-K2NA				
3	S201-K3NA				
4	S201-K4NA				
6	S201-K6NA				
8	S201-K8NA				
10	S201-K10NA		C	5	0.250
13	S201-K13NA				
16	S201-K16NA				
20	S201-K20NA				
25	S201-K25NA				
32	S201-K32NA				
40	S201-K40NA				
50	S201-K50NA				
63	S201-K63NA				

2 pole					
0.5	S202-K0.5				
1	S202-K1				
1.6	S202-K1.6				
2	S202-K2				
3	S202-K3				
4	S202-K4				
5	S202-K5				
6	S202-K6				
8	S202-K8				
10	S202-K10		A	5	0.250
13	S202-K13				
15	S202-K15				
16	S202-K16				
20	S202-K20				
25	S202-K25				
30	S202-K30				
32	S202-K32				
40	S202-K40				
50	S202-K50				
60	S202-K60				
63	S202-K63				

3 pole					
0.5	S203-K0.5				
1	S203-K1				
1.6	S203-K1.6				
2	S203-K2				
3	S203-K3				
4	S203-K4				
5	S203-K5				
6	S203-K6				
8	S203-K8				
10	S203-K10		A	1	0.375
13	S203-K13				
15	S203-K15				
16	S203-K16				
20	S203-K20				
25	S203-K25				
30	S203-K30				
32	S203-K32				
40	S203-K40				
50	S203-K50				
60	S203-K60				
63	S203-K63				

3 pole + neutral					
0.5	S203-K0.5NA				
1	S203-K1NA				
1.6	S203-K1.6NA				
2	S203-K2NA				
3	S203-K3NA				
4	S203-K4NA				
6	S203-K6NA				
8	S203-K8NA				
10	S203-K10NA		C	1	0.500
13	S203-K13NA				
16	S203-K16NA				
20	S203-K20NA				
25	S203-K25NA				
32	S203-K32NA				
40	S203-K40NA				
50	S203-K50NA				
63	S203-K63NA				

4 pole					
0.5	S204-K0.5				
1	S204-K1				
1.6	S204-K1.6				
2	S204-K2				
3	S204-K3				
4	S204-K4				
6	S204-K6				
8	S204-K8				
10	S204-K10				
13	S204-K13				
16	S204-K16				
20	S204-K20				
25	S204-K25				
32	S204-K32				
40	S204-K40				
50	S204-K50				
63	S204-K63				

Delivery Class

A - Standard item, stock to 2 weeks lead time
B - Stock to 4 weeks lead time
C - 6 to 8 week lead time

S200

480Y/277VAC

Supplementary Protectors

S200
Z

Z UL 1077 CSA C22.2 - N° 235
IEC-947-2
Fast trip characteristics



S201-Z16

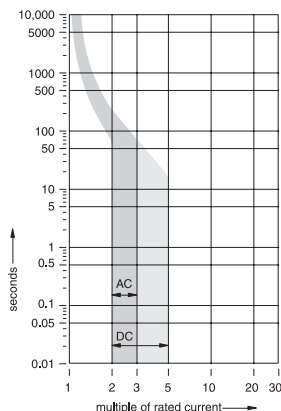


S202-Z16



S203-Z16

Z



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201-Z0.5				
1	S201-Z1				
1.6	S201-Z1.6				
2	S201-Z2				
3	S201-Z3				
4	S201-Z4				
6	S201-Z6				
8	S201-Z8		C	10	0.125
10	S201-Z10				
16	S201-Z16				
20	S201-Z20				
25	S201-Z25				
32	S201-Z32				
40	S201-Z40				
50	S201-Z50				
63	S201-Z63				
1 pole + neutral					
0.5	S201-Z0.5NA				
1	S201-Z1NA				
1.6	S201-Z1.6NA				
2	S201-Z2NA				
3	S201-Z3NA				
4	S201-Z4NA				
6	S201-Z6NA				
8	S201-Z8NA				
10	S201-Z10NA		C	5	0.250
16	S201-Z16NA				
20	S201-Z20NA				
25	S201-Z25NA				
32	S201-Z32NA				
40	S201-Z40NA				
50	S201-Z50NA				
63	S201-Z63NA				
2 pole					
0.5	S202-Z0.5				
1	S202-Z1				
1.6	S202-Z1.6				
2	S202-Z2				
3	S202-Z3				
4	S202-Z4				
6	S202-Z6				
8	S202-Z8				
10	S202-Z10		C	5	0.250
16	S202-Z16				
20	S202-Z20				
25	S202-Z25				
32	S202-Z32				
40	S202-Z40				
50	S202-Z50				
63	S202-Z63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.5	S203-Z0.5				
1	S203-Z1				
1.6	S203-Z1.6				
2	S203-Z2				
3	S203-Z3				
4	S203-Z4				
6	S203-Z6				
8	S203-Z8		C	1	0.375
10	S203-Z10				
16	S203-Z16				
20	S203-Z20				
25	S203-Z25				
32	S203-Z32				
40	S203-Z40				
50	S203-Z50				
63	S203-Z63				
3 pole + neutral					
0.5	S203-Z0.5NA				
1	S203-Z1NA				
1.6	S203-Z1.6NA				
2	S203-Z2NA				
3	S203-Z3NA				
4	S203-Z4NA				
6	S203-Z6NA				
8	S203-Z8NA				
10	S203-Z10NA		C	1	0.500
16	S203-Z16NA				
20	S203-Z20NA				
25	S203-Z25NA				
32	S203-Z32NA				
40	S203-Z40NA				
50	S203-Z50NA				
63	S203-Z63NA				
4 pole					
0.5	S204-Z0.5				
1	S204-Z1				
1.6	S204-Z1.6				
2	S204-Z2				
3	S204-Z3				
4	S204-Z4				
6	S204-Z6				
8	S204-Z8		C	1	0.500
10	S204-Z10				
16	S204-Z16				
20	S204-Z20				
25	S204-Z25				
32	S204-Z32				
40	S204-Z40				
50	S204-Z50				
63	S204-Z63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

pro M compact

S200U
K

S200U 240VAC Miniature MCCBs

pro M compact

K UL 489 CSA C22.2 - N° 5.0
IEC 947-2
Cable & equipment protection



S201U-K15

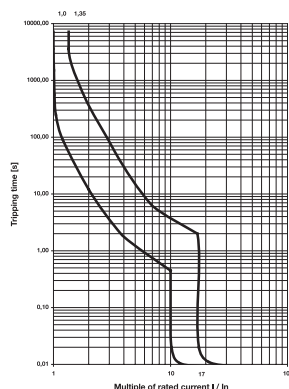


S202U-K15



S203U-K15

ABB MCCB Type S200U - K 0,2A ... 63A
(10 ... 17 x ln)
Tripping Characteristic



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg. (1 pc.)
1 pole					
0.2	S201U-K0.2				
0.3	S201U-K0.3				
0.5	S201U-K0.5				
0.75	S201U-K0.75				
1	S201U-K1				
1.6	S201U-K1.6				
2	S201U-K2				
3	S201U-K3				
4	S201U-K4				
5	S201U-K5				
6	S201U-K6				
8	S201U-K8				
10	S201U-K10		A	10	0.140
13	S201U-K13				
15	S201U-K15				
16	S201U-K16				
20	S201U-K20				
25	S201U-K25				
30	S201U-K30				
32	S201U-K32				
40	S201U-K40				
50	S201U-K50				
60	S201U-K60				
63	S201U-K63				

2 pole					
0.2	S202U-K0.2				
0.3	S202U-K0.3				
0.5	S202U-K0.5				
0.75	S202U-K0.75				
1	S202U-K1				
1.6	S202U-K1.6				
2	S202U-K2				
3	S202U-K3				
4	S202U-K4				
5	S202U-K5				
6	S202U-K6				
8	S202U-K8				
10	S202U-K10		A	5	0.280
13	S202U-K13				
15	S202U-K15				
16	S202U-K16				
20	S202U-K20				
25	S202U-K25				
30	S202U-K30				
32	S202U-K32				
40	S202U-K40				
50	S202U-K50				
60	S202U-K60				
63	S202U-K63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg. (1 pc.)
3 pole					
0.2	S203U-K0.2				
0.3	S203U-K0.3				
0.5	S203U-K0.5				
0.75	S203U-K0.75				
1	S203U-K1				
1.6	S203U-K1.6				
2	S203U-K2				
3	S203U-K3				
4	S203U-K4				
5	S203U-K5				
6	S203U-K6				
8	S203U-K8				
10	S203U-K10		A	1	0.420
13	S203U-K13				
15	S203U-K15				
16	S203U-K16				
20	S203U-K20				
25	S203U-K25				
30	S203U-K30				
32	S203U-K32				
40	S203U-K40				
50	S203U-K50				
60	S203U-K60				
63	S203U-K63				

4 pole					
0.2	S204U-K0.2				
0.3	S204U-K0.3				
0.5	S204U-K0.5				
0.75	S204U-K0.75				
1	S204U-K1				
1.6	S204U-K1.6				
2	S204U-K2				
3	S204U-K3				
4	S204U-K4				
5	S204U-K5				
6	S204U-K6				
8	S204U-K8				
10	S204U-K10				
13	S204U-K13				
15	S204U-K15				
16	S204U-K16				
20	S204U-K20				
25	S204U-K25				
30	S204U-K30				
32	S204U-K32				
40	S204U-K40				
50	S204U-K50				
60	S204U-K60				
63	S204U-K63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S200U 240VAC Miniature MCCBs

S200U
Z

Z

UL 489 CSA C22.2 N° 5.0
IEC 947-2
Cable & equipment protection



S201U-Z15

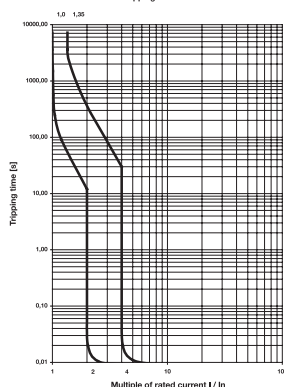


S202U-Z15



S203U-Z15

ABB MCCB Type S200U - Z 0,5A ... 63A
(2 ... 4 x In)
Tripping Characteristic



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201U-Z0.5				
1	S201U-Z1				
1.6	S201U-Z1.6				
2	S201U-Z2				
3	S201U-Z3				
4	S201U-Z4				
5	S201U-Z5				
6	S201U-Z6				
8	S201U-Z8				
10	S201U-Z10		B	10	0.140
15	S201U-Z15				
16	S201U-Z16				
20	S201U-Z20				
25	S201U-Z25				
30	S201U-Z30				
32	S201U-Z32				
40	S201U-Z40				
50	S201U-Z50				
60	S201U-Z60				
63	S201U-Z63				

2 pole					
0.5	S202U-Z0.5				
1	S202U-Z1				
1.6	S202U-Z1.6				
2	S202U-Z2				
3	S202U-Z3				
4	S202U-Z4				
5	S202U-Z5				
6	S202U-Z6				
8	S202U-Z8				
10	S202U-Z10		B	5	0.280
15	S202U-Z15				
16	S202U-Z16				
20	S202U-Z20				
25	S202U-Z25				
30	S202U-Z30				
32	S202U-Z32				
40	S202U-Z40				
50	S202U-Z50				
60	S202U-Z60				
63	S202U-Z63				

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.5	S203U-Z0.5				
1	S203U-Z1				
1.6	S203U-Z1.6				
2	S203U-Z2				
3	S203U-Z3				
4	S203U-Z4				
5	S203U-Z5				
6	S203U-Z6				
8	S203U-Z8				
10	S203U-Z10		B	1	0.420
15	S203U-Z15				
16	S203U-Z16				
20	S203U-Z20				
25	S203U-Z25				
30	S203U-Z30				
32	S203U-Z32				
40	S203U-Z40				
50	S203U-Z50				
60	S203U-Z60				
63	S203U-Z63				

4 pole					
0.5	S204U-Z0.5				
1	S204U-Z1				
1.6	S204U-Z1.6				
2	S204U-Z2				
3	S204U-Z3				
4	S204U-Z4				
5	S204U-Z5				
6	S204U-Z6				
8	S204U-Z8				
10	S204U-Z10		C	1	0.500
15	S204U-Z15				
16	S204U-Z16				
20	S204U-Z20				
25	S204U-Z25				
30	S204U-Z30				
32	S204U-Z32				
40	S204U-Z40				
50	S204U-Z50				
60	S204U-Z60				
63	S204U-Z63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

pro M compact

S200UP
K

S200UP 480Y/277VAC Miniature MCCBs

pro M compact

K UL 489 CSA C22.2 - N° 5.0
IEC 947-2
Cable & equipment protection



S201UP-K15



S202UP-K15



S203UP-K15

Rated current	Part number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.2	S201UP-K0.2				
0.3	S201UP-K0.3				
0.5	S201UP-K0.5				
0.75	S201UP-K0.75				
1	S201UP-K1				
1.6	S201UP-K1.6				
2	S201UP-K2				
3	S201UP-K3				
4	S201UP-K4		A	10	0.140
5	S201UP-K5				
6	S201UP-K6				
8	S201UP-K8				
10	S201UP-K10				
13	S201UP-K13				
15	S201UP-K15				
16	S201UP-K16				
20	S201UP-K20				
25	S201UP-K25				

0.2	S202UP-K0.2				
0.3	S202UP-K0.3				
0.5	S202UP-K0.5				
0.75	S202UP-K0.75				
1	S202UP-K1				
1.6	S202UP-K1.6				
2	S202UP-K2				
3	S202UP-K3				
4	S202UP-K4		A	5	0.280
5	S202UP-K5				
6	S202UP-K6				
8	S202UP-K8				
10	S202UP-K10				
13	S202UP-K13				
15	S202UP-K15				
16	S202UP-K16				
20	S202UP-K20				
25	S202UP-K25				

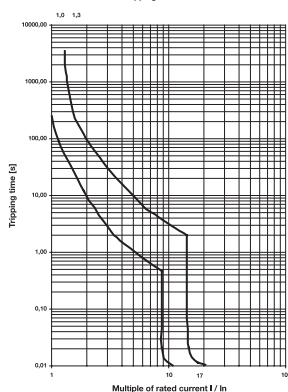
Rated current	Part number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.2	S203UP-K0.2				
0.3	S203UP-K0.3				
0.5	S203UP-K0.5				
0.75	S203UP-K0.75				
1	S203UP-K1				
1.6	S203UP-K1.6				
2	S203UP-K2				
3	S203UP-K3				
4	S203UP-K4		A	1	0.420
5	S203UP-K5				
6	S203UP-K6				
8	S203UP-K8				
10	S203UP-K10				
13	S203UP-K13				
15	S203UP-K15				
16	S203UP-K16				
20	S203UP-K20				
25	S203UP-K25				

0.2	S204UP-K0.2				
0.3	S204UP-K0.3				
0.5	S204UP-K0.5				
0.75	S204UP-K0.75				
1	S204UP-K1				
1.6	S204UP-K1.6				
2	S204UP-K2				
3	S204UP-K3				
4	S204UP-K4		C	1	0.560
5	S204UP-K5				
6	S204UP-K6				
8	S204UP-K8				
10	S204UP-K10				
13	S204UP-K13				
15	S204UP-K15				
16	S204UP-K16				
20	S204UP-K20				
25	S204UP-K25				

Delivery Class

A - Standard item, stock to 2 weeks lead time
B - Stock to 4 weeks lead time
C - 6 to 8 week lead time

ABB MCCB Type S200UP - K 0,2A ... 25A
(10 ... 17 x ln)
Tripping Characteristic



S200UP

480Y/277VAC

Miniature MCCBs

S200UP
Z

Z

UL 489 CSA C22.2 - N° 5.0
IEC 947-22
Cable & equipment protection



S201UP-Z15

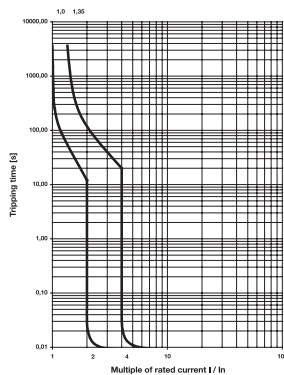


S202UP-Z15



S204UP-Z15

ABB MCCB Type S200UP - Z 0,5A ... 25A
(2 ... 4 x In)
Tripping Characteristic



Rated current	Part number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S201UP-Z0.5				
1	S201UP-Z1				
1.6	S201UP-Z1.6				
2	S201UP-Z2				
3	S201UP-Z3				
4	S201UP-Z4				
5	S201UP-Z5				
6	S201UP-Z6				
8	S201UP-Z8		B	10	0.140
10	S201UP-Z10				
13	S201UP-Z13				
15	S201UP-Z15				
16	S201UP-Z16				
20	S201UP-Z20				
25	S201UP-Z25				

2 pole					
0.5	S202UP-Z0.5				
1	S202UP-Z1				
1.6	S202UP-Z1.6				
2	S202UP-Z2				
3	S202UP-Z3				
4	S202UP-Z4				
5	S202UP-Z5				
6	S202UP-Z6				
8	S202UP-Z8		B	5	0.280
10	S202UP-Z10				
13	S202UP-Z13				
15	S202UP-Z15				
16	S202UP-Z16				
20	S202UP-Z20				
25	S202UP-Z25				

Rated current	Part number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.5	S203UP-Z0.5				
1	S203UP-Z1				
1.6	S203UP-Z1.6				
2	S203UP-Z2				
3	S203UP-Z3				
4	S203UP-Z4				
5	S203UP-Z5				
6	S203UP-Z6				
8	S203UP-Z8		B	1	0.420
10	S203UP-Z10				
13	S203UP-Z13				
15	S203UP-Z15				
16	S203UP-Z16				
20	S203UP-Z20				
25	S203UP-Z25				

4 pole					
0.5	S204UP-Z0.5				
1	S204UP-Z1				
1.6	S204UP-Z1.6				
2	S204UP-Z2				
3	S204UP-Z3				
4	S204UP-Z4				
5	S204UP-Z5				
6	S204UP-Z6				
8	S204UP-Z8		B	1	0.560
10	S204UP-Z10				
13	S204UP-Z13				
15	S204UP-Z15				
16	S204UP-Z16				
20	S204UP-Z20				
25	S204UP-Z25				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

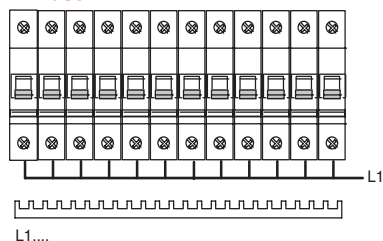
pro M compact

Accessories

Busbars (UL and IEC approved only)

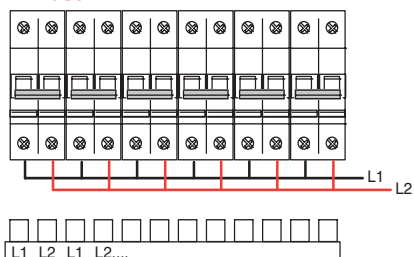
S200, S200U and S200UP

1 Phase



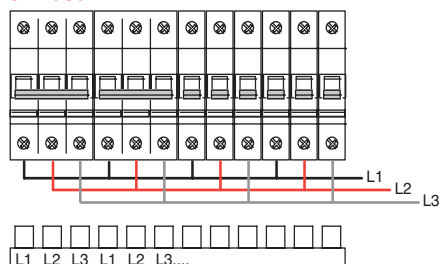
For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	63	60	1053	PS-END0	PS1/60		B	1	0.260
	80	60	1053	PS-END0	PS1/60/16				0.410
S200U & S200UP	80	6	103	–	PS1/6/16BP		B	1	0.040
		12	206	–	PS1/12/16BP				0.082
		18	310	–	PS1/18/16BP				0.122

2 Phase



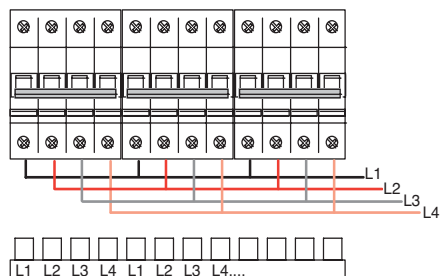
For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	63	58	1019	PS-END	PS2/58SP		B	1	0.312
	80	58	1019	PS-END	PS2/58/16SP				0.510
S200U & S200UP	80	6	103	–	PS2/6/16BP		B	1	0.051
		12	206	–	PS2/12/16BP				0.105
		18	310	–	PS2/18/16BP				0.159

3 Phase



For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	63	60	1055	PS-END	PS3/60SP		B	1	0.340
	80	60	1055	PS-END	PS3/60/16SP				0.567
S200U & S200UP	80	6	103	–	PS3/6/16BP		B	1	0.057
		12	206	–	PS3/12/16BP				0.114
		18	310	–	PS3/18/16BP				0.170

4 Phase



For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	80	60	1056	PS-END1	PS4/60/16SP		B	1	0.624

Delivery Class

- A - Standard item, stock to 2 weeks lead time
- B - Stock to 4 weeks lead time
- C - 6 to 8 week lead time

NOTE

ALL BUSBARS MAY BE CENTER FED IN ORDER TO DOUBLE THE AMPACITY RATING
(TERMINAL LIMITS: S200=1104, S200U/UP=140A)

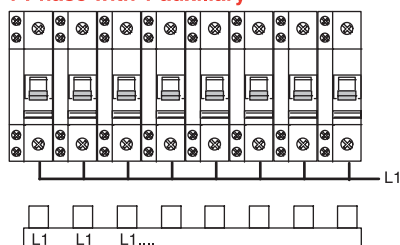
NOTE

BUSBARS MAY BE USED ON LINE OR LOAD OF MCBS

Accessories

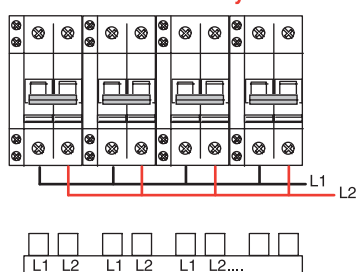
Busbars (UL and IEC approved only) S200

1 Phase with 1 auxiliary



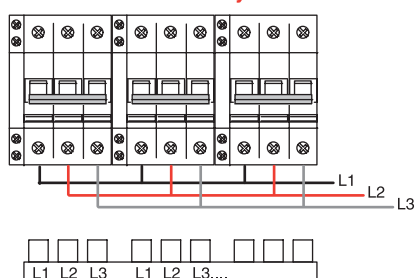
For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	63 80	38 38	1053 1053	PS-END0 PS-END0	PS1/38H PS1/38/16H		B	1	0.210 0.286

2 Phase with 1 auxiliary



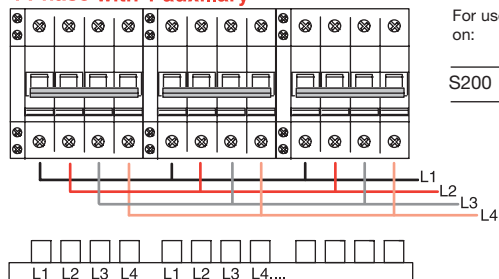
For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	80	48	1046	PS-END	PS2/48/16SP		B	1	0.661

3 Phase with 1 auxiliary



For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	80	48	1020	PS-END	PS3/48/16SP		B	1	0.641

4 Phase with 1 auxiliary



For use on:	Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight kg (1 pc.)
S200	80	52	1019	PS-END1	PS4/52/16SP		B	1	0.873

Delivery Class

- A - Standard item, stock to 2 weeks lead time
- B - Stock to 4 weeks lead time
- C - 6 to 8 week lead time

NOTE

ALL BUSBARS MAY BE CENTER FED IN ORDER TO DOUBLE THE AMPACITY RATING
(TERMINAL LIMITS: S200=1104, S200U/UP=140A)

NOTE

BUSBARS MAY BE USED ON LINE OR LOAD OF MCBS

Accessories

Busbars (UL and IEC approved only)

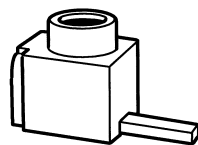
S200, S200U and S200UP



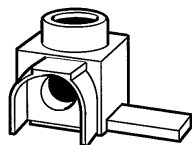
SZ-BSK



SZ-ESK2



SZ-AST55I

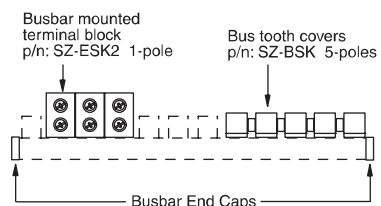


SZ-AST50I

Description	Catalog number	List price	Delivery class	Suggested order qty	Weight kg qty (1 pc.)
Busbar end caps 1 phase 2 & 3 phase 4 phase	PS-END0 PS-END PS-END1		A	10	0.001
Busbar tooth covers (5 pcs) (shrouds unused portion of busbar)	SZ-BSK		A	10	0.024
Busbar mounted terminal block, 1 pole, for use on all busbars, wire size: 14 AWG to 2 AWG	SZ-ESK2 (IEC only)		A	1	0.003

Cross section AWG / mm ²	For use on:	Catalog number	List price	Delivery class	Suggested order qty	Weight kg qty (1 pc.)
1/0 (50mm ²) Straight 1/0 (50mm ²) 90°	S200	SZ-AST55I SZ-AST50I		B	10 10	0.014 0.014
1/0 (50mm ²) Straight 1/0 (50mm ²) 90°	S200U & S200UP	SZ-AST55U SZ-AST50U		B	10 10	0.014 0.014
Ring tongue	S200U & S200UP	SZ-AST55UP		B	10	

MCB Busbar accessories



Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Accessories S200, S200U and S200UP



S2C-H6R



S2C-H10



S2C-A1



S2C-UA12DC



S2C-H6RU

Electrical accessories	For use on:	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
------------------------	-------------	----------------	------------	----------------	-----------------	-----------------

Auxiliary contacts

For field mounting right side:
1 form "C" contact

S200	S2C-H6R
S200U & S200UP	S2C-H6RU

A

1

0.04

For field mounting below:

1 N.O.
1 N.C.

S200	S2C-H10
S200	S2C-H01

A

15

0.02

The auxiliary contacts will signal whether the breaker is in the ON or OFF position. Wire size: 18 AWG to 14 AWG.

Bell alarm or auxiliary contacts (universal)

For field mounting right side:
1 form "C" contact

S200	S2C-S/H6R
S200U & S200UP	S2C-S6RU

A

1

0.04

The bell alarm includes a set of contacts that will only signal when the breaker has tripped. Typically the contacts would be connected to an alarm or bell to signal the operator that an overcurrent trip has occurred. The bell alarm also includes a test button for testing the alarm contacts without opening the breaker. Wire size: 18 AWG to 16 AWG.

Shunt Trip

For field mounting right side:
A1-12-60VAC (12-60VDC)
A2-110-415VAC (110-250VDC)

S200	S2C-A1 S2C-A2
S200U & S200UP	S2C-A1U S2C-A2U

A

1

0.150

For remote tripping of breaker, a shunt trip device can be added to the MCB. The solenoid device opens the breaker after control voltage is applied. Shunt trips are available for on control system voltage (12-415VAC-VDC).

Undervoltage release

For field mounting:

12VDC
24VAC
24VDC
48VAC
48VDC
110VAC
110VDC
230VAC
230VDC
400VAC

S200

S2C-UA12DC
S2C-UA24AC
S2C-UA24DC
S2C-UA48AC
S2C-UA48DC
S2C-UA110AC
S2C-UA110DC
S2C-UA230AC
S2C-UA230DC
S2C-UA400AC

B

1

0.09

When control voltage drops below approximately 50% of rated voltage, the UVR opens the breaker. The breaker can not be operated unless proper control voltage is first applied to the UVR coil. Similar in size and mounting to the shunt trip accessory.

Factory mounting

All accessories can be easily mounted in the field. For factory mounting of any accessory devices, add **\$50** list to total price per breaker. To create complete catalog number, take suffix of accessory device following «S2C-» and add suffix to end of breaker part number. Multiple suffixes must be added in alphabetical order.

Example: S202-K20A1 \$ 240 (2 pole, 20A breaker with type A1 shunt trip) S202-K20 @ \$82 + S2C-A1
S202-K20A2H6R \$ 268 (2 pole, 20A breaker with type A2 shunt trip and H6R aux. contacts)
S202-K20 @ \$82 + S2C-A1 @ \$108 + S2C-H6R @ \$28 + factory mounting @ \$50 = \$260

Auxiliary contacts and shunt trips may be mounted in combination.

Auxiliary contacts

Rated current: 10A
Min. voltage: 24VAC/VDC
Mechanical life: 10,000 operations

Delivery Class

A - Standard item, stock to 2 weeks lead time
B - Stock to 4 weeks lead time
C - 6 to 8 week lead time

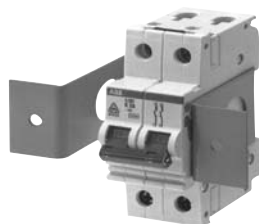
Accessories S200



S500-ME2



MB-CL



MB-3PD



SA1



SA2



S2C-DH

Electrical accessories	Catalog number	List price	Delivery class	Suggested order quantities	Wgt. kg (1 pc.)
Front mounting kit					
For 2 poles	S500-ME1		A	1	0.060
For 2 – 5 poles	S500-ME2				0.082
For 2 – 10 poles	S500-ME3				0.102

Includes flange, mounting rail and hardware.

Front mounting clip					
For 1 – 4 poles	MB-CL		B	1	0.057

Simple mounting clip for up to four module mounting.

Front mounting bracket					
For 1 – 2 poles	MB-2PD		B	1	0.071
For 1 – 3 poles	MB-3PD				

For flush mounting of three pole MCBs: includes hardware.

Locking device					
Adaptor only	SA1		A	10	—
Padlock only w/ 2 keys	SA2				—

Allows breaker to be locked in ON or OFF position.

Labeling accessory					
1 sheet = 40 blank labels	BS		A	1	—
1 sheet = 40 numbered labels	BS/40				

Enclosure, IP55 (IEC only)					
For 4 modules	12644		B	1	0.230
For 6 modules	12646				0.307
For 10 modules	12650				0.581
For 20 modules	12652				1.162

Molded plastic complete with mounting rail and knock-outs for cable entries.

Blanking plates					
Single pole (set of 10)	BP-1P		B	1	—

Rotary mechanism					
	S2C-DH		A	1	0.261

For use with 2, 3 and 4 pole S2 MCBs and disconnect switch selector handles with 5mm shaft.

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Technical data

S200

Item	S200 - B		S200 - C, D		S200 - K		S200 - Z	
Approvals: UL CSA IEC/EN	1077 C22.2 — No. 235 60898, 60947-2		1077 C22.2 — No. 235 60898, 60947-2		1077 C22.2 — No. 235 60947-2		1077 C22.2 — No. 235 60947-2	
No. of poles:	1, 2, 3, 4, 1+N, 3+N		1, 2, 3, 4, 1+N, 3+N		1, 2, 3, 4, 1+N, 3+N		1, 2, 3, 4, 1+N, 3+N	
Tripping characteristic:	B		C, D		K		Z	
Rated currents:	6 to 63A		0.5 to 63A		0.5 to 63A		0.5 to 63A	
Minimum operating voltage:	12V		12V		12V		12V	
UL/CSA rated voltage & interrupting capacity	<u>Single pole</u>	<u>Multi pole</u>	<u>Single pole</u>	<u>Multi pole</u>	<u>Single pole</u>	<u>Multi pole</u>	<u>Single pole</u>	<u>Multi pole</u>
120VAC	10kA	—	10kA	—	10kA	—	6kA	—
240VAC	6kA	10kA	6kA	10kA	6kA	10kA	6kA	6kA
277VAC	6kA	—	6kA	—	6kA	—	6kA	—
480Y / 277VAC	—	6kA	—	6kA	—	6kA	—	6kA
60VDC	10kA	10kA	10kA	10kA	10kA	10kA	10kA	10kA
125VDC	—	10kA	—	10kA	—	10kA	10kA	10kA
Frequency:	50/60Hz (see below)		50/60 Hz (see below)		50/60Hz (see below)		50/60Hz (see below)	
Rated voltage	230VAC		230VAC		230VAC		230VAC	
IEC single pole	60VDC		60VDC		60VDC		60VDC	
IEC multi-pole	400VAC		400VAC		400VAC		400VAC	
	125VDC		125VDC		125VDC		125VDC	
Protection category:	IP20		IP20		IP20		IP20	
Depth of unit per DIN 43880:	68mm		68mm		68mm		68mm	
Mounting position:	optional		optional		optional		optional	
Standard mounting:	35mm DIN rail		35mm DIN rail		35mm DIN rail		35mm DIN-rail	
Main & shunt trip terminals:	Wire size		Wire size		Wire size		Wire size	
	0.75 – 25mm ²		0.75 – 25mm ²		0.75 – 25mm ²		0.75 – 25mm ²	
	Torque		Torque		Torque		Torque	
	2.8Nm		2.8Nm		2.8Nm		2.8Nm	
	Accessory terminals		Accessory terminals		Accessory terminals		Accessory terminals	
	0.75 – 2.5mm ²		0.75 – 2.5mm ²		0.75 – 2.5mm ²		0.75 – 2.5mm ²	
	Tool		Tool		Tool		Tool	
	#1 Posidrive		#1 Posidrive		#1 Posidrive		#1 Posidrive	
Service life at rated load:	I _n <32A, 20,000 operations I _n >32A, 10,000 operations		I _n <32A, 20,000 operations I _n >32A, 10,000 operations		I _n <32A, 20,000 operations I _n >32A, 10,000 operations		I _n <32A, 20,000 operations I _n >32A, 10,000 operations	
Ambient temperatures:	-25°C to +55°C		-25°C to +55°C		-25°C to +55°C		-25°C to +55°C	
Storage temperatures:	-40°C to +70°C		-40°C to +70°C		-40°C to +70°C		-40°C to +70°C	
Shock resistance:	30g minimum of 2 impacts, shock duration of 13ms		30g minimum of 2 impacts, shock duration of 13ms		30g minimum of 2 impacts, shock duration of 13ms		30g minimum of 2 impacts, shock duration of 13ms	
Vibration resistance:	5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _n		5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _n		5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _n		5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _n	
Trip indication	No		No		No		No	

Influence of frequency on electro-magnetic trips

Magnetic trip values shown on trip curves are valid for 50/60Hz applications. For frequencies other than 50/60Hz, the magnetic (instantaneous) trip values are increased by the factor given below.

	16-2/3 to 60Hz	100Hz	200Hz	400Hz	DC
Approx. factor	1	1.1	1.2	1.5	1.5

Thermal tripping is independent of frequency.

Technical data

S200U, S200UP

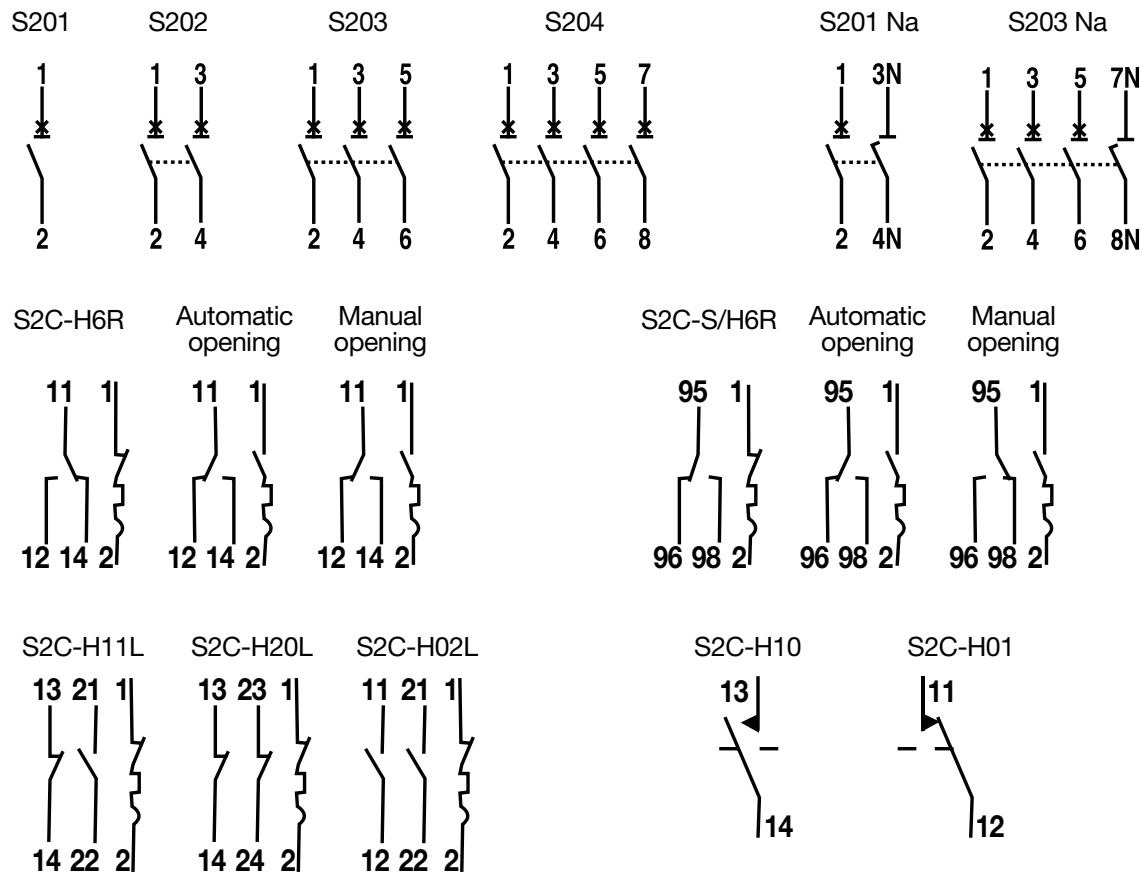
Item	S200U		S200UP	
Approvals:	489		489	
UL	C22.2 — No. 5.0		C22.2 — No. 5.0	
CSA	60947-2		60947-2	
IEC/EN				
No. of poles:	1, 2, 3, 4		1, 2, 3, 4	
Tripping characteristic:	K, Z		K, Z	
Rated currents:	0.2 to 63A		0.2 to 25A	
Minimum operating voltage:	12V		12V	
UL/CSA rated voltage & interrupting capacity	<u>Single pole</u>	<u>Multi pole</u>	<u>Single pole</u>	<u>Multi pole</u>
120VAC	10kA	—	—	—
240VAC	10kA	10kA	—	—
277VAC	—	—	10kA	—
480Y/ 277VAC	—	—	—	10kA
Frequency:	50/60Hz		50/60Hz	
Rated voltage				
IEC single pole	230VAC		230VAC	
	60VDC		60VDC	
IEC multi-pole	400VAC		400VAC	
	125VDC		125VDC	
Protection category:	IP20		IP20	
Depth of unit per DIN 43880:	68mm		68mm	
Mounting position:	optional		optional	
Standard mounting:	35mm DIN rail		35mm DIN rail	
Main terminals:				
Wire size	0.75 – 25mm ²		0.75 – 25mm ²	
	(18 - 4 AWG)		(18 - 4 AWG)	
Torque	2.8Nm		2.8Nm	
Service life at rated load:	20,000 operations		20,000 operations	
Ambient temperatures:	-25°C to +55°C		-25°C to +55°C	
Shock resistance:	30g minimum of 20 impacts, shock duration of 13ms		10g minimum of 20 impacts, shock duration of 13ms	
Vibration resistance:	5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _N		5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 - I _N	
Trip indicator	Yes		Yes	

Technical data

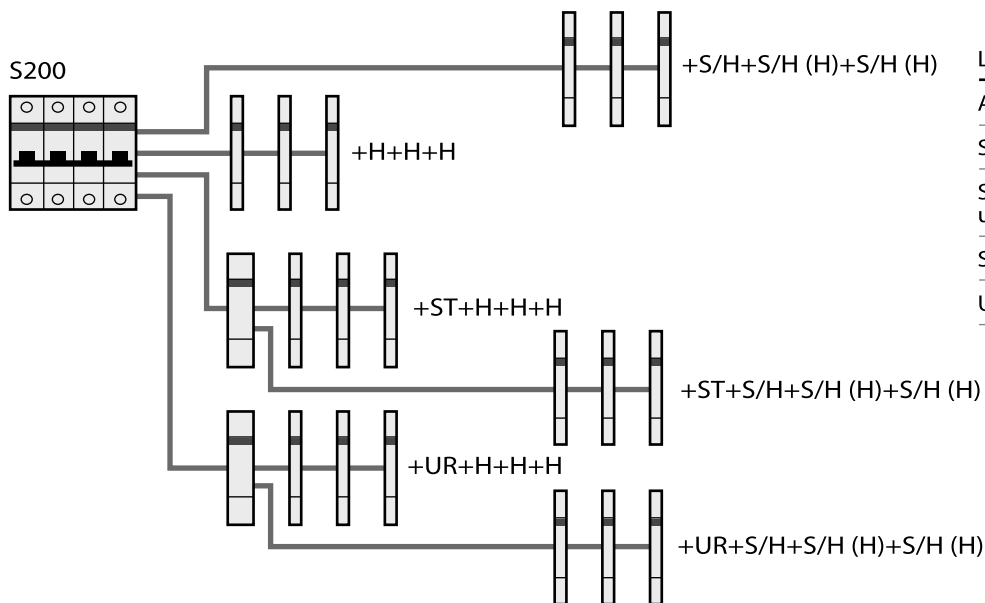
Terminal marking and accessories mounting

Terminal data

Input optional from top or bottom



Possible mounting arrangements of MCB accessories



Legend

Auxiliary contact	H
Signal/Auxiliary contact	S/H
Signal/Auxiliary contact used as auxiliary contact	S/H (H)
Shunt trip	ST
Undervoltage release	UR

Technical data

Busbars & connectors

Connection methods



Dual function terminals provided in open position for connection to busbars or cable.



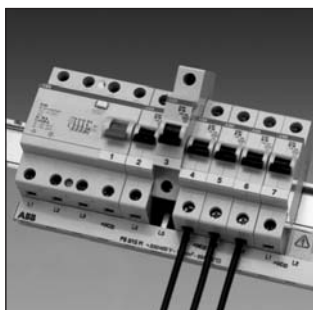
Terminals allow for connection of cable 18-4 AWG.



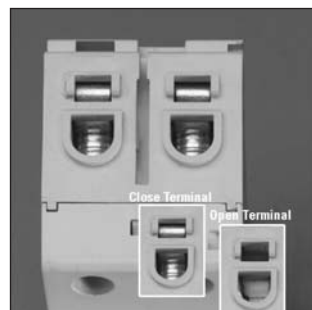
Two slots per terminal offer the ability to connect, independently, two conductors.



Top and bottom terminals can be bussed together with single phase or multi-phase busbars as shown. Both line and load side terminals can be busbar connected.



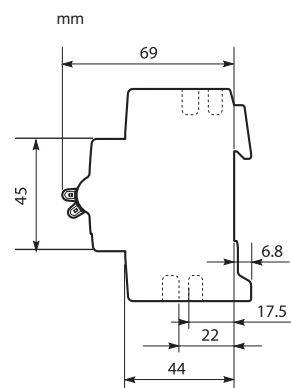
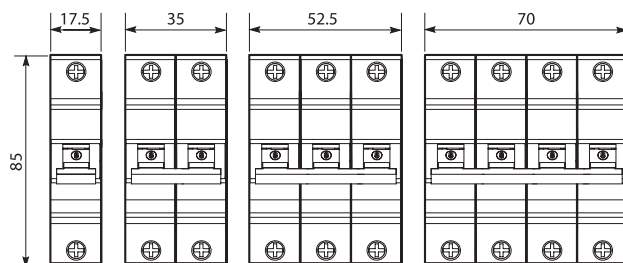
Easy removal of devices from an assembly when using busbar in the bottom, load side terminals. Supplementary protectors only.



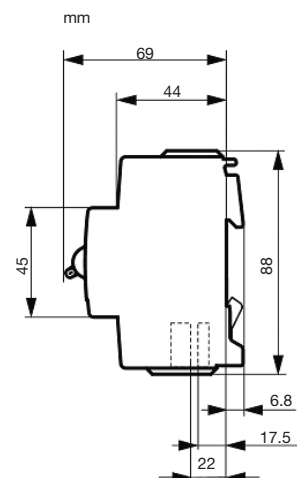
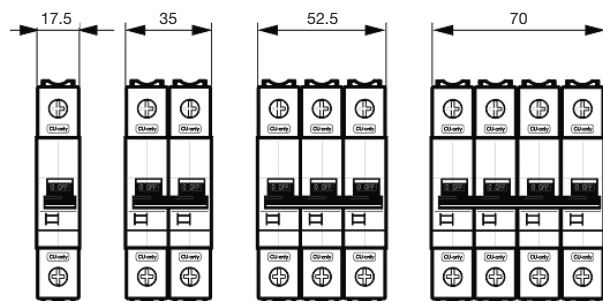
Conductors can only be inserted into open terminals, preventing mis-wiring and potential problems.

Approximate dimension S200, S200U, S200UP

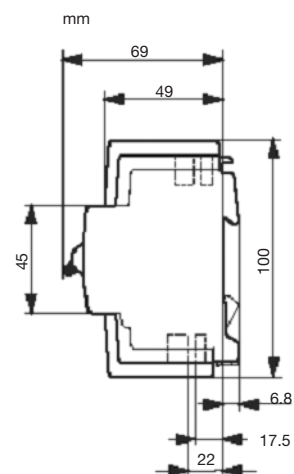
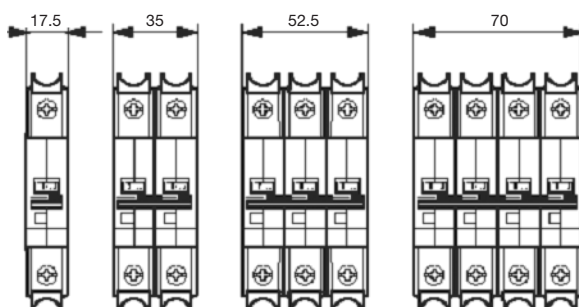
S200



S200U

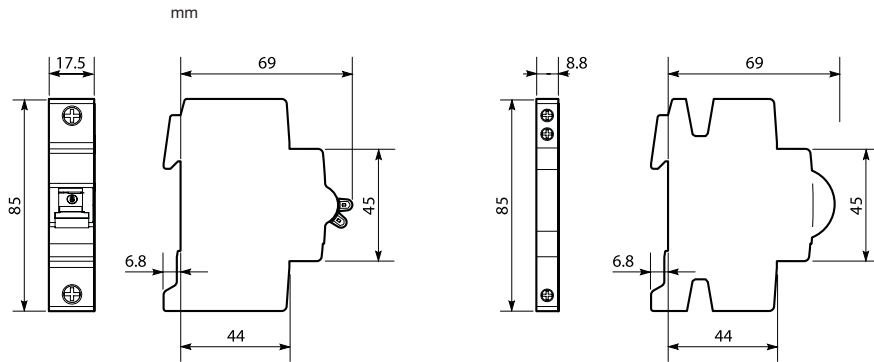


S200UP

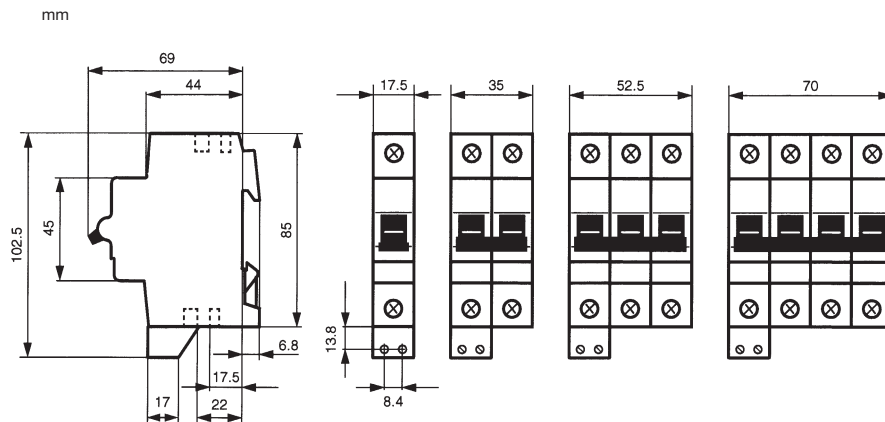


Approximate dimension Accessories S200

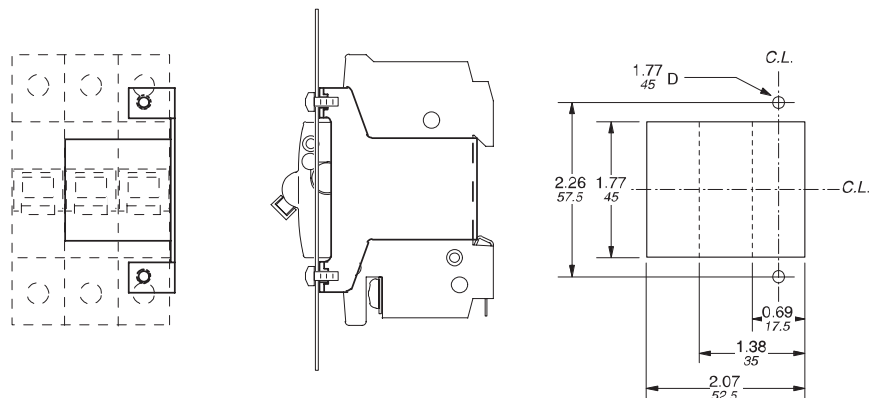
S2C-A/UA
S2C-S/H6R



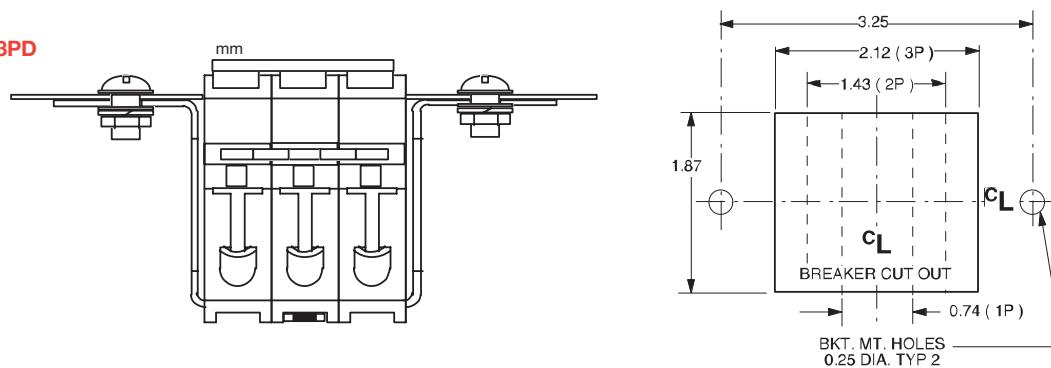
S2C-H10
S2C-H01



MB-CL

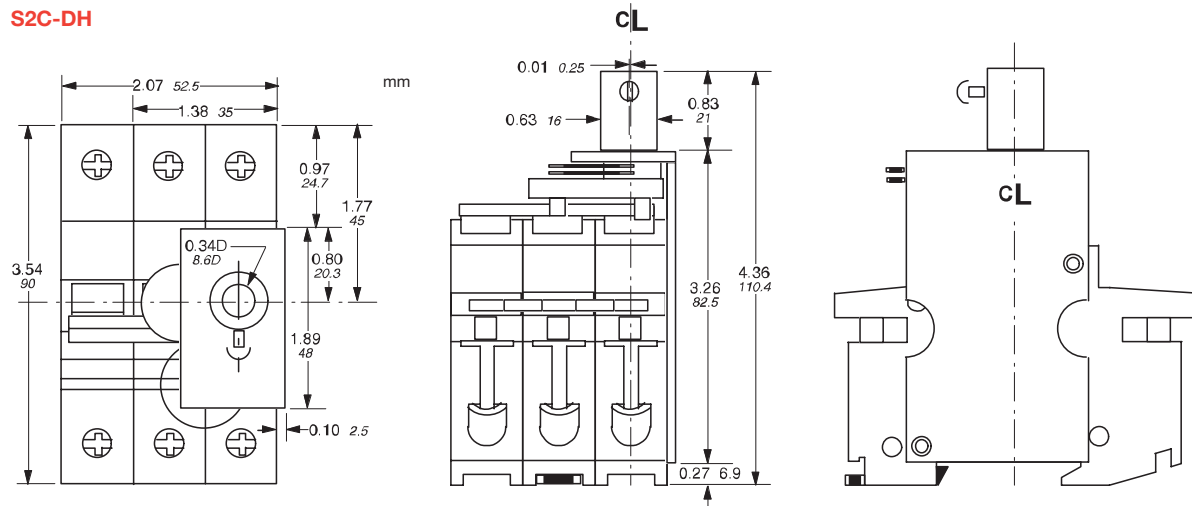


MB-3PD

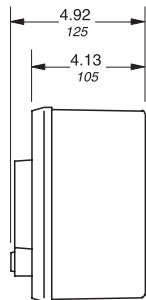


Approximate dimension Accessories S200

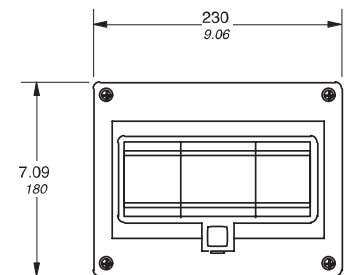
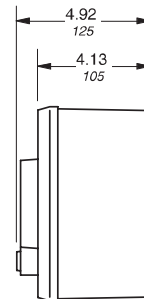
S2C-DH



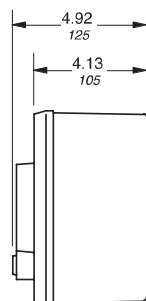
12644



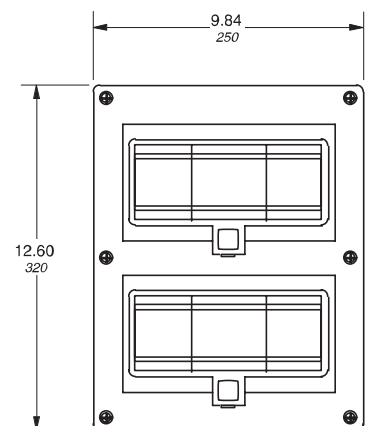
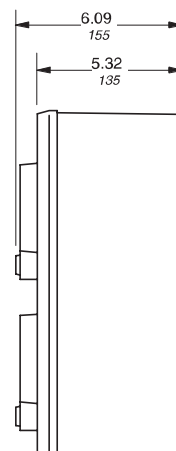
12650



12646



12652



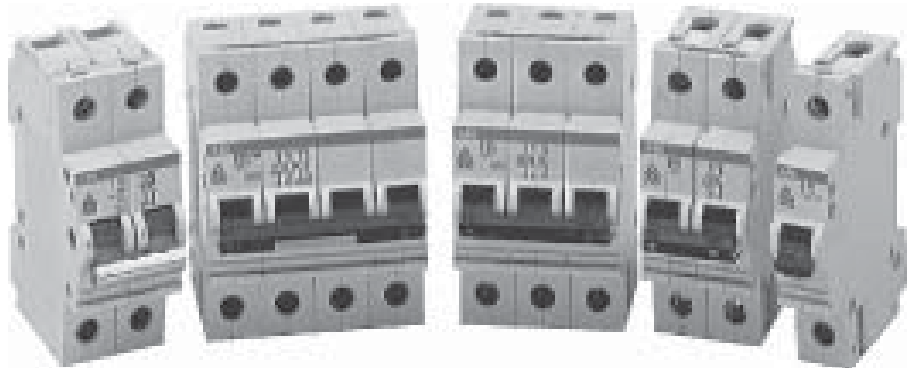
Cross-reference

Older version	Suggested replacement series	Physical comparison	Electrical comparison
S260B	S200B	Same pole spacing	Same trip characteristic
S260C	S200C	Same pole spacing	Same trip characteristic
S260D	S200D	Same pole spacing	Same trip characteristic
S270K	S200K	Same pole spacing	Same trip characteristic
S280K	S200K	Same pole spacing	Same trip characteristic except 6kA IC
S280Z	S200Z	Same pole spacing	Same trip characteristic except 6kA IC

Many older styles of ABB miniature circuit breakers have been replaced by new and improved versions. Many of these newer styles can be directly interchanged, both electrically and physically, with the older version. There are also many international styles of ABB circuit breakers which are not normal stock items and may be interchanged with stocked ABB versions.



pro M Supplementary Protectors S280, S220, S290



pro M

Description

The S2 series of miniature circuit breakers offer a compact solution to protection requirements. **The breakers are recognized under standard UL 1077 and CSA C22.2 N° 235 as supplemental devices.** The S2 devices are current limiting, DIN rail mounted and can offer a good equivalent to fused systems.

The S2 is available with application-specific trip characteristics to provide maximum circuit protection. The breakers offer thermal-magnetic trip protection according to K and Z characteristics.

For the worldwide market, the breakers carry UL, CSA, IEC, CE and many other agency approvals and certifications.

Features

- Current limiting
- Fast breaking time (2.5 – 3.5 msec)
- Unique bus connection system
- Wide range of accessories
- Available with variable depth handle mechanism
- Optional Z curve for SCR protection
- CE certified and marked
- DIN rail or front plated mounting
- Finger safe terminals
- Multi-function terminals
- Suitable for reverse feed
- UL 1077 and CSA C22.2 N° 235
- 480Y/277VAC, 600Y/347VAC and 500VDC versions

General information

Interrupting ratings

Trip characteristics overview & tripping curves

Interrupting ratings

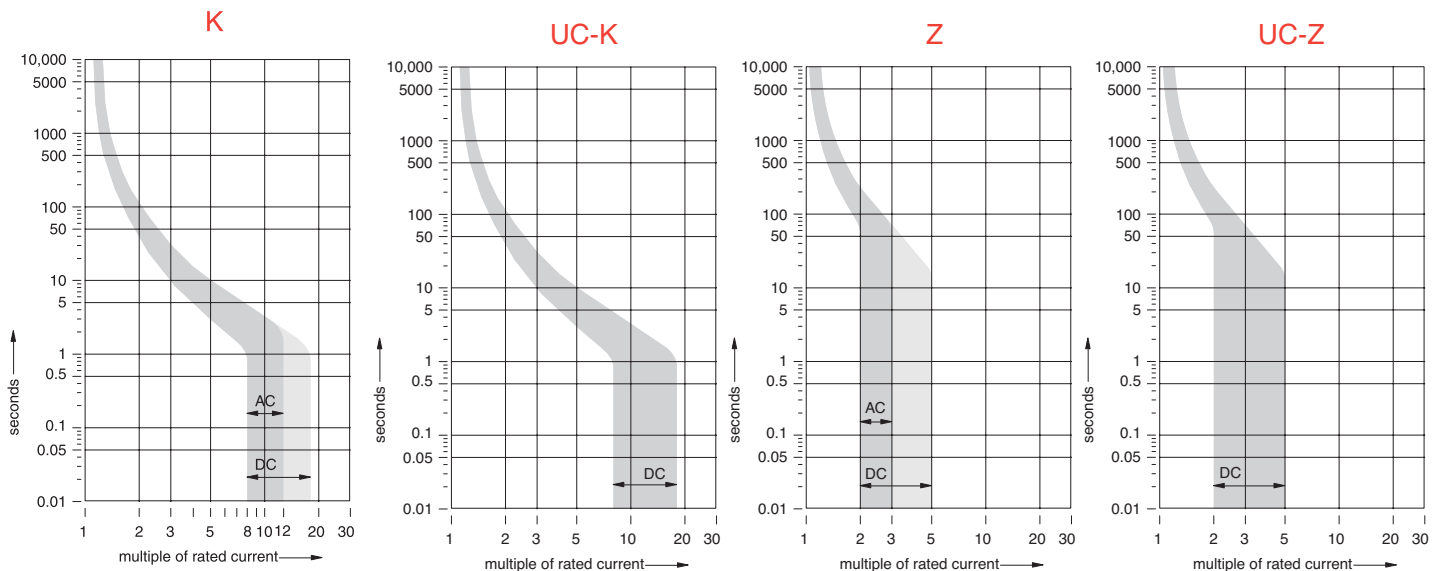
Voltage	Rated interrupting capacity	Rated current	MCB type	Comment
120VAC	18kA	32 - 63A	S500-B,C,D	Single pole
	30kA	26 - 45A	S500-K	
240VAC	18kA	6 - 25A	S500-B,C,D	
	30kA	0.15 - 25A	S500-K	
277VAC	6kA	50 - 63A	S500-B,D	Single pole
	10kA	0.2 - 40A	S500-K	
480Y/277VAC	6kA	6 - 25A	S500-B,C,D	Multi pole
	10kA	0.15 - 25A	S500-K	
347VAC	3kA	0.2 - 63A	S220-K	Single pole
600Y/347VAC	3kA	0.2 - 63A	S220-K	Multi pole
125VDC	10kA	0.2 - 63A	S280UC-K,Z	Single pole
250VDC	4.5kA	0.2 - 63A	S280UC-K,Z	Single pole
500VDC	4.5kA	0.2 - 63A	S280UC-K,Z	Multi pole

Trip characteristics overview

Curve	Magnetic characteristic ①	Thermal characteristic	Series
B	3 - 5X	1.25X	S500
C	5 - 10X	1.25X	S290, S500
D	10 - 20X	1.25X	S500
K	8 - 12X	1.05X	S280, S500
Z	2 - 3X	1.05X	S280

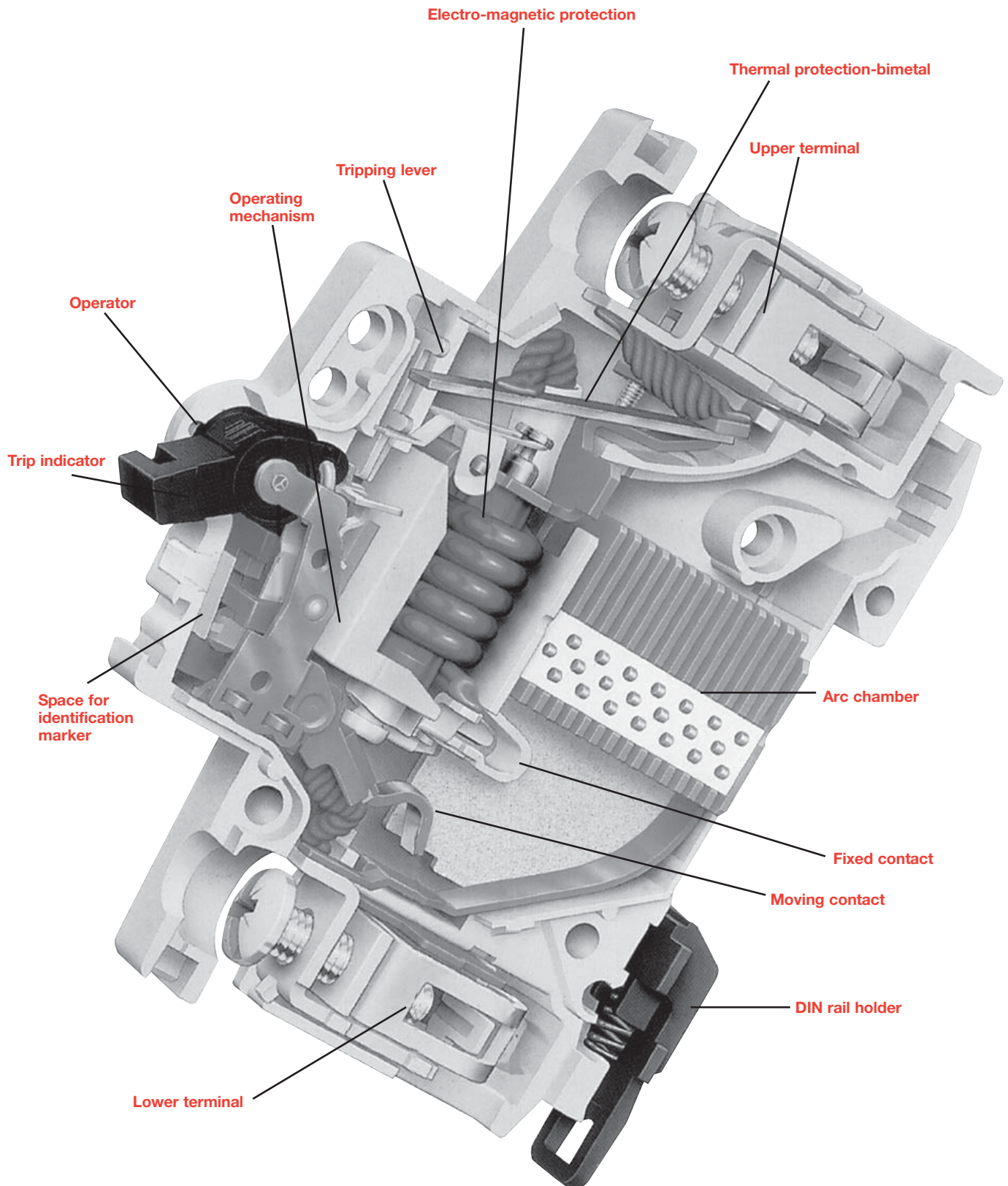
① All values are relative to MCB's ampere rating.

Tripping curves



General information

Construction details (S280 shown)



pro M

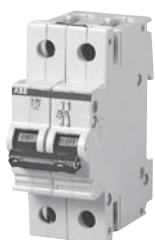
S280(W)
K

S280 (W) - for use with ring tongue terminal connectors 480Y/277VAC Supplementary Protectors

K UL 1077
CSA C22.2 - N° 235
Cable & equipment protection



S281-K16W



S281-K1W



S283-K63W

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.2	S281-K0.2W				
0.3	S281-K0.3W				
0.5	S281-K0.5W				
0.75	S281-K0.75W				
1	S281-K1W				
1.6	S281-K1.6W				
2	S281-K2W				
3	S281-K3W				
4	S281-K4W				
6	S281-K6W				
8	S281-K8W				
10	S281-K10W				
13	S281-K13W				
16	S281-K16W				
20	S281-K20W				
25	S281-K25W				
32	S281-K32W				
40	S281-K40W				
50	S281-K50W				
63	S281-K63W				

2 pole					
0.2	S282-K0.2W				
0.3	S282-K0.3W				
0.5	S282-K0.5W				
0.75	S282-K0.75W				
1	S282-K1W				
1.6	S282-K1.6W				
2	S282-K2W				
3	S282-K3W				
4	S282-K4W				
6	S282-K6W				
8	S282-K8W				
10	S282-K10W				
13	S282-K13W				
16	S282-K16W				
20	S282-K20W				
25	S282-K25W				
32	S282-K32W				
40	S282-K40W				
50	S282-K50W				
63	S282-K63W				

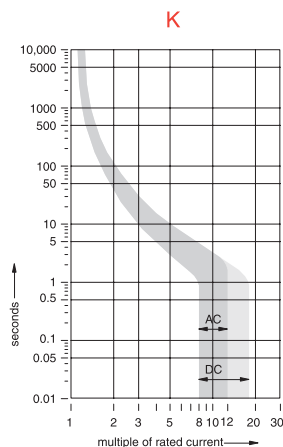
Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.2	S283-K0.2W				
0.3	S283-K0.3W				
0.5	S283-K0.5W				
0.75	S283-K0.75W				
1	S283-K1W				
1.6	S283-K1.6W				
2	S283-K2W				
3	S283-K3W				
4	S283-K4W				
6	S283-K6W				
8	S283-K8W				
10	S283-K10W				
13	S283-K13W				
16	S283-K16W				
20	S283-K20W				
25	S283-K25W				
32	S283-K32W				
40	S283-K40W				
50	S283-K50W				
63	S283-K63W				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Screws (must be ordered separately)

Item	Catalog number	List price ②
PKG of 20 screws	S2-SCR	



① For use with ring tongue or cable terminals only. Cannot be used with busbar system.
② No charge when ordered with the S280(W).

S280UC

500 VDC - 480Y/277VAC

Supplementary Protectors

S280UC
K

K

UL 1077
CSA 22.2 N° 235
Cable and Equipment Protection



S281UC-K25



S282UC-K8



S283UC-K16

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.2	S281UC-K0.2				
0.3	S281UC-K0.3				
0.5	S281UC-K0.5				
0.75	S281UC-K0.75				
1	S281UC-K1				
1.6	S281UC-K1.6				
2	S281UC-K2				
3	S281UC-K3				
4	S281UC-K4				
6	S281UC-K6		C	10	0.125
8	S281UC-K8				
10	S281UC-K10				
16	S281UC-K16				
20	S281UC-K20				
25	S281UC-K25				
32	S281UC-K32				
40	S281UC-K40				
50	S281UC-K50				
63	S281UC-K63				
2 pole					
0.2	S282UC-K0.2				
0.3	S282UC-K0.3				
0.5	S282UC-K0.5				
0.75	S282UC-K0.75				
1	S282UC-K1				
1.6	S282UC-K1.6				
2	S282UC-K2				
3	S282UC-K3				
4	S282UC-K4				
6	S282UC-K6		C	5	0.250
8	S282UC-K8				
10	S282UC-K10				
16	S282UC-K16				
20	S282UC-K20				
25	S282UC-K25				
32	S282UC-K32				
40	S282UC-K40				
50	S282UC-K50				
63	S282UC-K63				

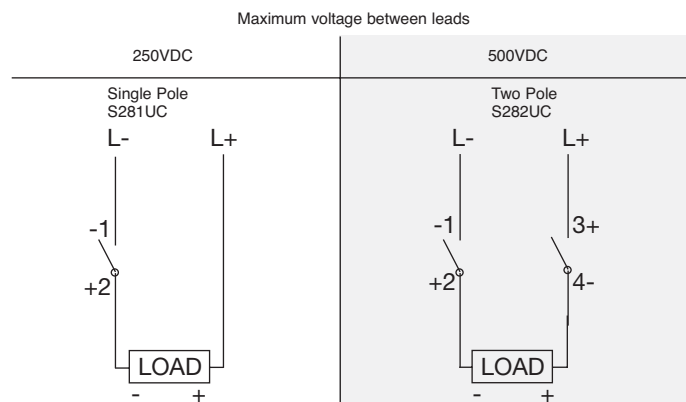
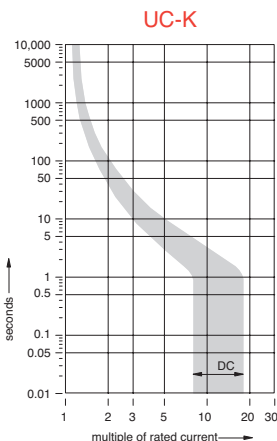
Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.2	S283UC-K0.2				
0.3	S283UC-K0.3				
0.5	S283UC-K0.5				
0.75	S283UC-K0.75				
1	S283UC-K1				
1.6	S283UC-K1.6				
2	S283UC-K2				
3	S283UC-K3				
4	S283UC-K4				
6	S283UC-K6		C	3	0.375
8	S283UC-K8				
10	S283UC-K10				
16	S283UC-K16				
20	S283UC-K20				
25	S283UC-K25				
32	S283UC-K32				
40	S283UC-K40				
50	S283UC-K50				
63	S283UC-K63				

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Direct current applications

The S280UC differs from standard miniature circuit breakers in that the UC versions include a permanent magnet which aids in the extinguishing of the arc during medium and high level faults. It is necessary to observe the correct polarity and current direction when connecting the UC breakers. Two examples of correct connection are shown below.



Termination points are marked on all UC type MCBs, points one (1) and four (4) are negative and points two (2) and three (3) are positive. Four pole breakers are also available for voltage reversal applications.

S280UC

500VDC - 480Y/277VAC

Supplementary Protectors

Z

UL 1077
CSA 22.2 N° 235
Fast trip characteristic



S281UC-Z16



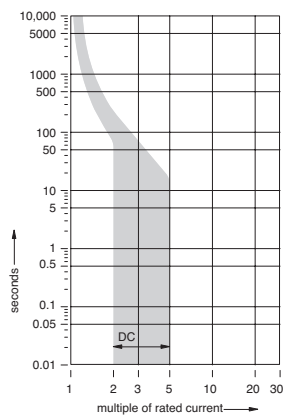
S282UC-Z32



S283UC-Z32

500 VDC Class

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.5	S281UC-Z0.5				
1	S281UC-Z1				
1.6	S281UC-Z1.6				
2	S281UC-Z2				
3	S281UC-Z3				
4	S281UC-Z4				
6	S281UC-Z6				
8	S281UC-Z8				
10	S281UC-Z10		C	10	0.125
16	S281UC-Z16				
20	S281UC-Z20				
25	S281UC-Z25				
32	S281UC-Z32				
40	S281UC-Z40				
50	S281UC-Z50				
63	S281UC-Z63				
2 pole					
0.5	S282UC-Z0.5				
1	S282UC-Z1				
1.6	S282UC-Z1.6				
2	S282UC-Z2				
3	S282UC-Z3				
4	S282UC-Z4				
6	S282UC-Z6				
8	S282UC-Z8				
10	S282UC-Z10		C	5	0.250
16	S282UC-Z16				
20	S282UC-Z20				
25	S282UC-Z25				
32	S282UC-Z32				
40	S282UC-Z40				
50	S282UC-Z50				
63	S282UC-Z63				
3 pole					
0.5	S283UC-Z0.5				
1	S283UC-Z1				
1.6	S283UC-Z1.6				
2	S283UC-Z2				
3	S283UC-Z3				
4	S283UC-Z4				
6	S283UC-Z6				
8	S283UC-Z8				
10	S283UC-Z10		C	3	0.375
16	S283UC-Z16				
20	S283UC-Z20				
25	S283UC-Z25				
32	S283UC-Z32				
40	S283UC-Z40				
50	S283UC-Z50				
63	S283UC-Z63				

UC-Z**Delivery Class**

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S290 400/230VAC

S290
C

C IEC 898
Cable and equipment protection



S291-C80



S290-H11

400VAC Class

Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. oz. (1 pc.)
1 pole					
80	S291-C80		C	6	9.2
100	S291-C100				
125	S291-C125				
2 pole					
80	S292-C80		C	3	18.4
100	S292-C100				
125	S292-C125				
3 pole					
80	S293-C80		C	2	27.6
100	S293-C100				
125	S293-C125				
4 pole					
80	S294-C80		C	1	36.8
100	S294-C100				
125	S294-C125				

Auxiliary contact

	S290-H11		C	1	1.75
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Bell alarm

	S290-S		C	1	1.75
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Shunt trip

	S290-A1		C	1	6.2
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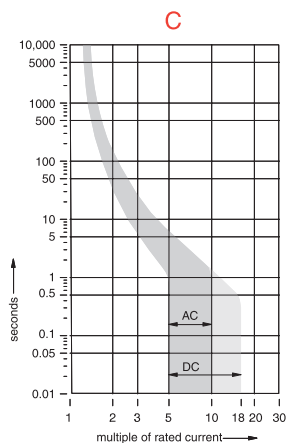
For field mounting, left side, 110V – 415VAC

	S290-A2		C	1	6.2
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For field mounting, left side, 24 – 48VDC

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time



S220
K

S220 600Y/347VAC Supplementary Protectors

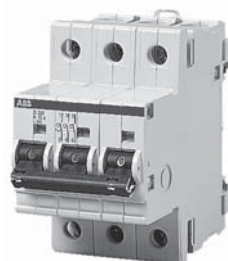
K UL 1077
CSA C22.2 - N° 235
Cable & equipment protection



S221-K10

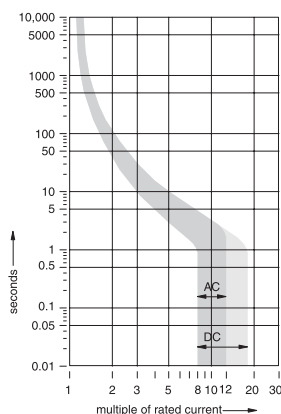


S222-K10



S223-K20

K



Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
1 pole					
0.2	S221-K0.2				
0.3	S221-K0.3				
0.5	S221-K0.5				
0.75	S221-K0.75				
1	S221-K1				
1.6	S221-K1.6				
2	S221-K2				
3	S221-K3				
4	S221-K4		A	10	0.180
6	S221-K6				
8	S221-K8				
10	S221-K10				
16	S221-K16				
20	S221-K20				
25	S221-K25				
32	S221-K32				
40	S221-K40				
50	S221-K50				
63	S221-K63				

0.2	S222-K0.2				
0.3	S222-K0.3				
0.5	S222-K0.5				
0.75	S222-K0.75				
1	S222-K1				
1.6	S222-K1.6				
2	S222-K2				
3	S222-K3				
4	S222-K4		B	5	0.360
6	S222-K6				
8	S222-K8				
10	S222-K10				
16	S222-K16				
20	S222-K20				
25	S222-K25				
32	S222-K32				
40	S222-K40				
50	S222-K50				
63	S222-K63				

Auxiliary Contacts 1NO / 1NC

For field mounting. Can be modified to 2 NO or 2NC

	S220-H11		A	10	0.05
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Rated current	Catalog number	List price	Delivery class	Sugg. order qty	Wgt. kg (1 pc.)
3 pole					
0.2	S223-K0.2				
0.3	S223-K0.3				
0.5	S223-K0.5				
0.75	S223-K0.75				
1	S223-K1				
1.6	S223-K1.6				
2	S223-K2				
3	S223-K3				
4	S223-K4		B	3	0.540
6	S223-K6				
8	S223-K8				
10	S223-K10				
16	S223-K16				
20	S223-K20				
25	S223-K25				
32	S223-K32				
40	S223-K40				
50	S223-K50				
63	S223-K63				

Delivery Class

A - Standard item, stock to 2 weeks lead time

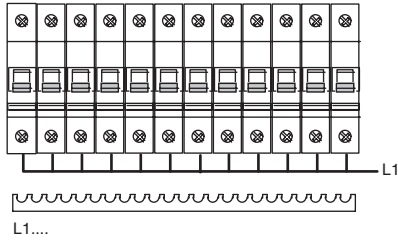
B - Stock to 4 weeks lead time

C - 6 to 8 week lead time

Accessories

Busbars & connectors (UL and IEC approved only) S220, S280

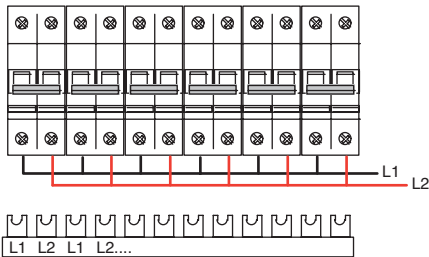
1 Phase



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
55	12	207	—	SZ-KS1/12		B	10	0.6
55	56	988	—	SZ-KS1/56			5	2.6
85	56	988	—	SZ-KS2/56			5	5.2
110	56	988	—	SZ-VB45.32			5	10.0

Uninsulated copper bar mounts flush with bottom edge of circuit breakers.
For use on bottom and lower sides of S280 and S220.

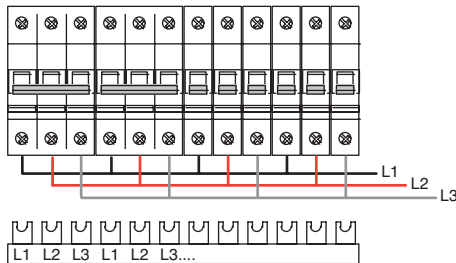
2 Phase



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	58	1035	PSB-END3	SZ-PSB54N		B	1	14.4
65	58	1035	PSB-END3	SZ-PSB56N				19.1
50	12	213	—	PSB-53UL				4.0

Insulated busbar assembly contains 2 separate circuits for use with 1, 1+N or 2 pole MCBs.
For use on bottom and lower sides of S280 and S220.

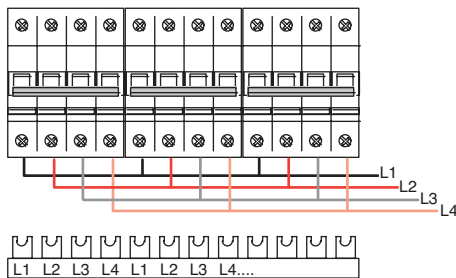
3 Phase



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	12	213	—	PSB-3UL		B	3	4.3
65	60	1065	PSB-END6	SZ-PSB4N			1	21.4
50	60	1065	PSB-END6	SZ-PSB12N			1	34.2

Insulated busbar assembly contains 3 separate circuits for use with 1 or 3 pole MCBs.
For use on bottom and lower sides of S280 and S220.

4 Phase



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	60	1035	PSB-END4	SZ-PSB62N		B	1	23.2
65	60	1035	PSB-END4	SZ-PSB64N				31.6

Insulated busbar assembly contains 4 separate circuits for use with 3+N1 or 4 pole MCBs.
For use on bottom and lower sides of S280 and S220.

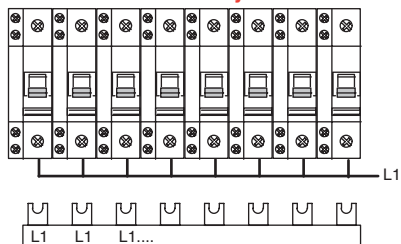
Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Accessories

Busbars & connectors (UL and IEC approved only) S220, S280

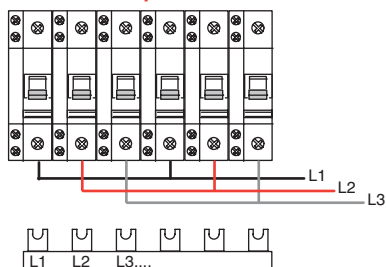
1 Phase with 1 auxiliary



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	39	1044	—	SZ-KS3/39N		B	1	7.4
65	39	1044	—	SZ-KS4/39N		B	1	10.1

Insulated copper bar mounts flush with bottom edge of circuit breakers.
For use on bottom and lower sides of S280 and S220.

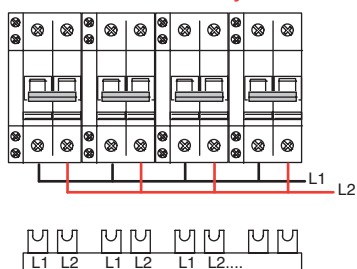
3 Phase for 1 pole MCB's with 1 auxiliary



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	58	1044	PSB-END3	SZ-PSB46N		B	1	16.1
65	58	1044	PSB-END3	SZ-PSB48N		B	1	22.1

Insulated busbar assembly contains 2 separate circuits for use with 1, 1+N or 2 pole MCBs.
For use on bottom and lower sides of S280 and S220.

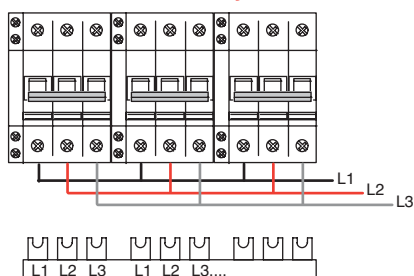
2 Phase with 1 auxiliary



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
65	48	1065	PSB-END3	SZ-PSB92N		B	1	23.2

Insulated busbar assembly contains 3 separate circuits for use with 1 or 3 pole MCBs.
For use on bottom and lower sides of S280 and S220.

3 Phase with 1 auxiliary



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	48	980	PSB-END3	SZ-PSB50N		B	1	15.8
65	48	980	PSB-END3	SZ-PSB52N		B	1	22.6

Insulated busbar assembly contains 4 separate circuits for use with 3+N1 or 4 pole MCBs.
For use on bottom and lower sides of S280 and S220.

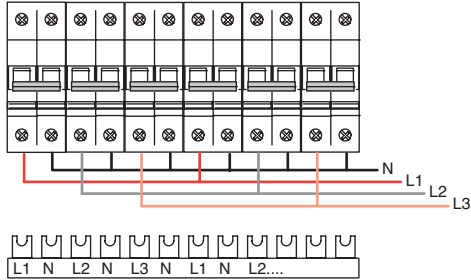
Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Accessories

Busbars & connectors (UL and IEC approved only) S220, S280

**3 Phase + N, for use with 2 pole MCB's
on 3 phase / 4W system**



Amp rating	Number of poles	Busbar length	End cap catalog number	Catalog number	List price	Delivery class	Suggested order qty. quantity	Weight ounce (2 pc.)
50	58	1048	PSB-END4	SZ-PSB58N		B	1	22.3
65	58	1048	PSB-END4	SZ-PSB60N		B	1	30.8

Insulated busbar assembly contains 4 separate circuits for use with 1+N or 2 pole MCBs.
For use on bottom and lower sides of S280 and S220.

Description	Catalog number	List price	Delivery class	Suggested order qty.	Weight ounce qty. (2 pc.)
Busbar end caps	PSB-END3 PSB-END4 PSB-END5 PSB-END6		B	10	—

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

pro M

Accessories S280



S2-H11



S2-A1



S2-S



S2-S/H



S2-NT

Electrical accessories	Catalog number	List price	Delivery class	Suggested order quantities	Wgt. oz. (1 pc.)
Auxiliary contacts For field mounting: left side 1 N.O./ 1 N.C. 2 N.O. 2 N.C. 1 N.O./ 2 N.C. 2 N.O./ 1 N.C. 2 N.O./ 1 N.C. (low voltage)	S2-H11 S2-H20 S2-H02 S2-H12 S2-H21 S2-H21KL		B	1	1.4

The S2-H11 auxiliary switch can be field S280 series breaker. The auxiliary contacts will signal whether the breaker is in the ON or OFF position. The contacts are rated 6A/240 VAC and 1.5A/110 VDC. Minimum operating voltage is 12 VAC/VDC.

Bell alarm

For field mounting, left side	S2-S		B	1	1.4
-------------------------------	------	--	---	---	-----

The S2-S bell alarm includes a set of contacts that will only signal when the breaker has tripped. Typically the contacts would be connected to an alarm or bell to signal the operator that an overcurrent trip has occurred. The bell alarm also includes a test button for testing the alarm contacts without opening the breaker. The contact is rated 6A/240 VAC and 1.5A/110 VDC. Minimum operating voltage is 12 VAC/VDC.

Bell alarm with auxiliary contact

For field mounting, left side	S2-S/H		B	1	1.4
-------------------------------	--------	--	---	---	-----

The S2-S/H bell alarm with auxiliary contact device combines one set of bell alarm contacts with one set of auxiliary contacts (N.O.).

Shunt trip

For field mounting, left side					
12-60 VAC (12-60VDC)	S2-A1		B	1	5.2
110-415 VAC (110-250 VDC)	S2-A2				

For remote tripping of breaker, a shunt trip device can be added to the MCB. The solenoid device opens the breaker after control voltage is applied. Shunt trips are available depending on control system voltage (12-415 VAC/VDC).

Undervoltage release

For field mounting, left or right side					
12V	S2-UA12		B	1	5.2
24V	S2-UA24				
48V	S2-UA48				
110V	S2-UA110				
220V	S2-UA220				
380V	S2-UA380				

When control voltage drops below approximately 50% of rated voltage, the S2-UA opens the breaker. The breaker can not be operated unless proper control voltage is first applied to the UVR coil. Similar in size and mounting to the shunt trip accessory; can be left or right side mounted.

Hand operated neutral disconnect

For field mounting, right side, 40A max.	S2-NT		B	1	1.4
--	-------	--	---	---	-----

When switching of neutral with breaker contacts is desired, the neutral module S2-UA can be added to S280 MCB. The neutral connection makes before the MCB contacts connect line to load. Makes contact before MCB contacts close. Must be opened manually.

Factory mounting

All accessories can be easily mounted in the field. For factory mounting of any accessory devices, add \$50 list to total price per breaker. To create complete catalog number, take suffix of accessory device following "S2-" and add suffix to end of breaker part number. Multiple suffixes must be added in alphabetical order.

Example: S282UC-K20 \$ 390 (2 pole, 20A breaker with type A1 shunt trip)
 S282UC-K20 @ \$232 + S2-A1 @ \$108 + factory mounting @ \$50

S282UC-K20A2H11 \$ 418 (2 pole, 20A breaker with type A2 shunt trip and H11 aux. contacts)
 S282UC-K20 @ \$232 + S2-A1 @ \$108 + S2-H11 @ \$28 + factory mounting @ \$50

Auxiliary contacts and shunt trips may be mounted in combination.

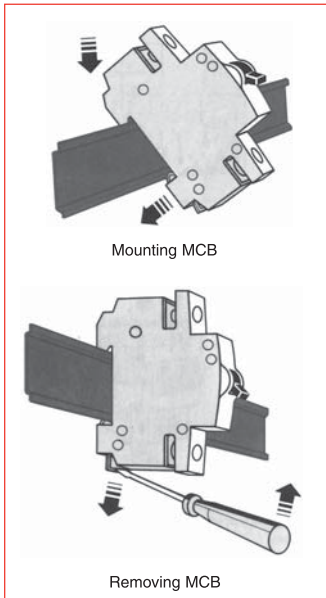
Delivery Class

- A - Standard item, stock to 2 weeks lead time
- B - Stock to 4 weeks lead time
- C - 6 to 8 week lead time

NOTE: Above accessories are for use with S280 Supplementary Protectors only.

Technical data

Mounting and operating instructions



Mounting

Universal mounting position using snap-on mounting to standard 35x7.5mm DIN rail.

Miniature circuit breakers (MCBs) can also be mounted to front of door using a panel cut-out with breaker handle protruding through panel opening for external operation. Special front mounting kit type ME is available (see page 2.12).

Connection

Terminals are suitable for solid or flexible conductors from 18 to 4 AWG (0.75 to 25mm²) with no busbar connected. When maximum busbar size of 36 mm² is used, maximum cable is 6 AWG (16 mm²).

Maximum tightening torque of 17.5 in-lb (2 Nm) for line/load terminals and 4.5 in-lb (0.5Nm) for accessory device terminals.

Operation

MCBs are switched on by moving the handle to the upper position. Stamped onto the handle switch, a "I" is visible confirming that the breaker is closed.

The MCBs are "trip-free," if the handle is being forced to the "ON" position, the breaker will still trip under fault conditions.

The "O" marking indicates that the breaker is in the "OFF" position. The MCB is now open and the load is disconnected from line power.

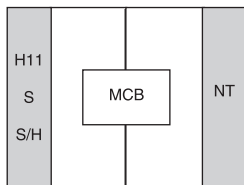
When a breaker has tripped, the MCB handle should first be set to the full "OFF" position to make certain the trip mechanism has been reset. Once the fault has been determined and cleared the MCB can again be switched "ON".

Maintenance

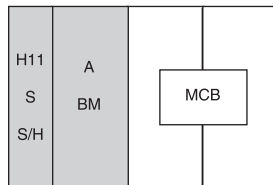
ABB miniature circuit breakers require no special maintenance; only normal electrical system maintenance procedures are required.

pro M

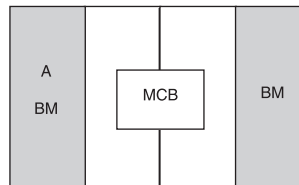
Possible mounting arrangements of MCB accessories



Auxiliary switch/bell alarm neutral disconnect

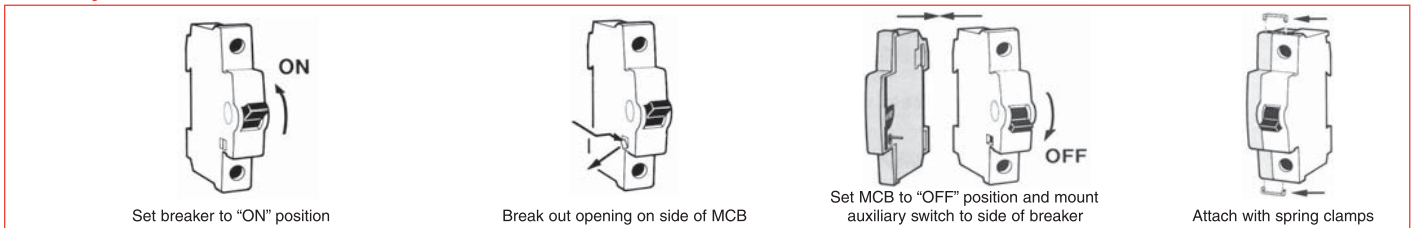


Shunt trip or undervoltage release mounted with auxiliary switch

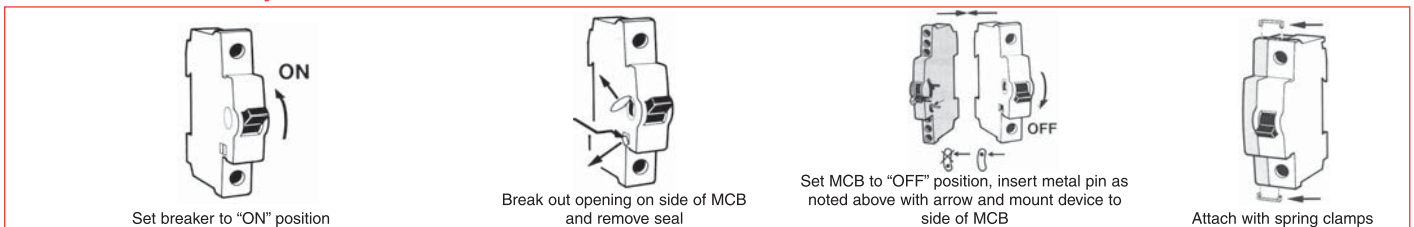


Shunt trip and/or undervoltage release

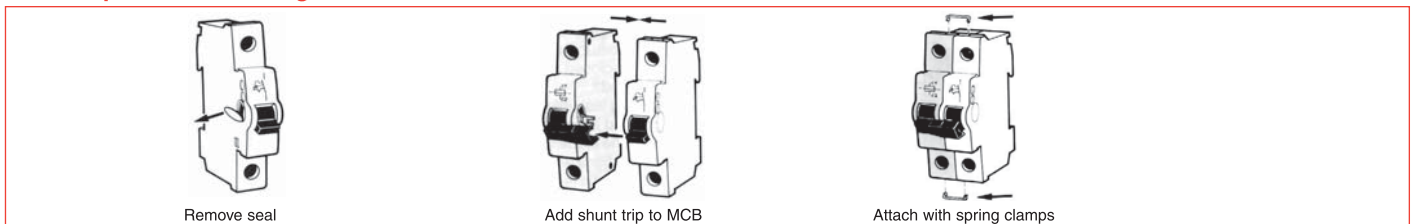
Auxiliary switch



Bell alarm with auxiliary contact



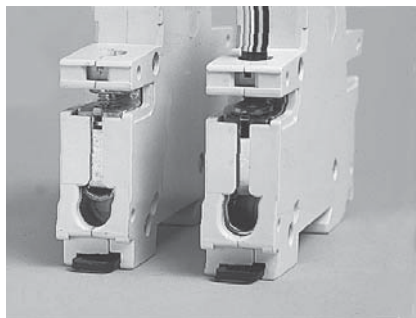
Shunt trip and undervoltage release



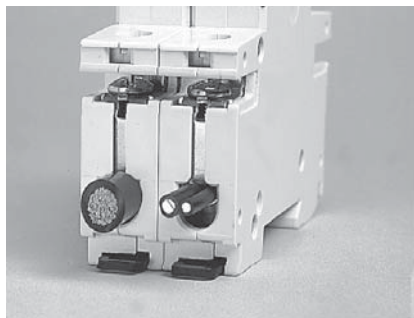
Technical data

Busbars & connectors

Connection methods



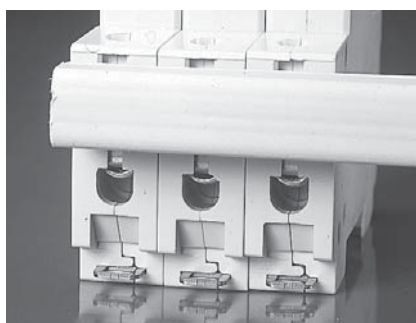
Dual function terminals provided in open position for connection to busbars. Pressing on screw head opens box terminal for cable insertion. Only the lower terminal is dual function.



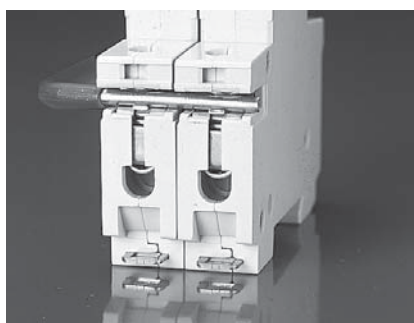
Terminals allow for connection of cable 18-4 AWG. Conductors of different sizes may also be used in same terminal.



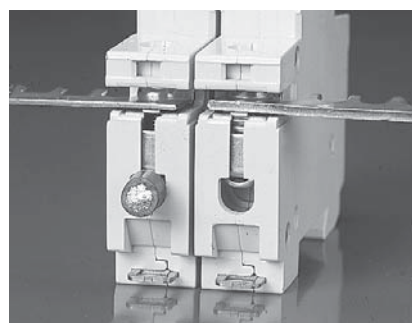
Up to five conductors, 16 AWG each, can be safely connected per terminal.



Lower terminals can be bussed together with single phase or multi-phase busbars as shown. Upper terminals can also be busbar connected.



Lower terminal can also be bussed with solid round conductor.



Cables can be connected to box terminals in addition to busbar connections on lower, dual function terminals.

Technical data

S280UC, S280

S280

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Item	S280UC-K		S280UC-Z		S280-KW	
Approvals:	1077		1077		1077	
UL	C22.2 — No. 235		C22.2 — No. 235		C22.2 — No. 235	
CSA	0660		0660		0660	
VDE	898,947		898, 947		898,947	
IEC						
No. of poles:	1,2,3		1,2,3		1,2,3,4,1+N,3+N	
Tripping characteristic:	K		Z		K	
Rated currents:	0.2 to 63A		0.5 to 63A		0.2 to 63A	
Minimum operating voltage:	12V		12V		12V	
UL/CSA rated voltage & interrupting capacity	Single pole	Multi pole	Single pole	Multi pole	Single pole	Multi pole
120VAC	6kA for 0.2-40A 5kA for 50-63A	—	6kA for 0.2-40A 5kA for 50-63A	—	10kA for 0.2-40A 6kA for 50-63A	—
240VAC	6kA for 0.2-40A 5kA for 50-63A	6kA for 0.2-40A 5kA for 50-63A	6kA for 0.2-40A 5kA for 50-63A	6kA for 0.2-40A 5kA for 50-63A	10kA for 0.2-40A 6kA for 50-63A	10kA for 0.2-32A 6kA for 40-63A
277VAC	4.5kA for 0.2-40A 5kA for 50-63A	—	4.5kA for 0.2-40A 5kA for 50-63A	—	10kA for 0.2-40A	—
277/480VAC	—	4.5kA for 0.2-40A 5kA for 50-63A	—	4.5kA for 0.2-40A 5kA for 50-63A	—	10kA for 0.2-32A 6kA for 40-63A
60VDC	10kA	10kA	10kA	10kA	—	—
125VDC	10kA	10kA	10kA	10kA	—	—
250VDC	4.5kA	4.5kA	4.5kA	4.5kA	—	—
500VDC	—	4.5kA	—	4.5kA	—	—
Frequency:	50/60 Hz (see below)		50/60Hz (see below)		50/60Hz (see below)	
Rated voltage						
IEC single pole	240/415VAC 220VDC		240/415VAC 220VDC		240/415VAC 60VDC	
IEC multi-pole	415VAC 440VDC		415VAC 440VDC		415VAC 110VDC	
Protection category:	IP20		IP20		IP20	
Depth of unit per DIN 43880:	68mm		68mm		68mm	
Mounting position:	optional		optional		optional	
Standard mounting:	35mm DIN rail		35mm DIN-rail		35mm DIN rail	
Terminals:	Conductors from 18-4AWG (0.75 – 25sq mm) 50A and above Conductors from 18-2AWG (0.75 – 35sq mm)		Conductors from 18-4AWG (0.75 – 25sq mm) 50A and above Conductors from 18-2AWG (0.75 – 35sq mm)		Conductors from 18-4AWG (0.75 – 25sq mm) 50A and above Conductors from 18-2AWG (0.75 – 35sq mm)	
Service life at rated load:	20,000 operations		20,000 operations		20,000 operations	
Ambient temperatures:	-25°C to +55°C		-25°C to +55°C		-25°C to +55°C	
Shock resistance:	10g minimum of 20 impacts, shock duration of 13ms		10g minimum of 20 impacts, shock duration of 13ms		10g minimum of 20 impacts, shock duration of 13ms	
Vibration resistance:	5g, minimum of 30 minutes		5g, minimum of 30 minutes		5g, minimum of 30 minutes	
Trip indication	Yes		Yes		Yes	

Influence of frequency on electro-magnetic trips

Magnetic trip values shown on trip curves are valid for 50/60Hz applications. For frequencies other than 50/60Hz, the magnetic (instantaneous) trip values are increased by the factor given below:

	16 2/3 - 60Hz	100Hz	200Hz	400Hz	DC
Approx. factor	1	1.1	1.2	1.5	1.5

Thermal tripping is independent of frequency.

Technical data

S290, S220

Item	S290-C	S220-K	
Approvals:			
UL	—	1077	
CSA	—	C22.2 — No. 235	
VDE	0660	0660	
IEC	898	898, 947	
No. of poles:	1,2,3,4	1,2,3	
Tripping characteristic:	C	K	
Rated currents:	80 to 125A	0.5 to 63A	
Minimum operating voltage:	12V	12V	
UL/CSA rated voltage & interrupting capacity		<u>Single pole</u>	<u>Multi pole</u>
120VAC	—	—	—
240VAC	—	—	—
277VAC	—	—	—
277/480VAC	—	—	—
347/600VAC	—	3KA	3KA
60VDC	—	—	—
125VDC	—	—	—
Frequency:	50/60Hz (See below)	50/60Hz (see below)	
Rated voltage			
IEC single pole	230/440VAC	400/690VAC	
	60VDC	60VDC	
IEC multi-pole	440VAC	690VAC	
	110VDC	110VDC	
Protection category:	IP20	IP20	
Depth of unit per DIN 43880:	70mm	83mm	
Mounting position:	optional	optional	
Standard mounting:	35mm DIN rail	35mm DIN rail	
Terminals:	Conductors from 14-1/0AWG (1.5 – 50sq mm)	Conductors from 18-4AWG (0.75 – 25sq mm)	
	—	50A and above	
	—	Conductors from 18-2AWG	
	—	(0.75 – 35sq mm)	
Service life at rated load:	10,000 operations	20,000 operations	
Ambient temperatures:	-5°C to +45°C	-25°C to +55°C	
Shock resistance:	30g minimum of 20 impacts, shock duration of 13ms	10g minimum of 20 impacts, shock duration of 13ms	
Vibration resistance:	60m/s², at 10 - 150 Hz	5g, minimum of 30 minutes	
Trip indication	Yes	Yes	

Influence of frequency on electro-magnetic trips

Magnetic trip values shown on trip curves are valid for 50/60Hz applications. For frequencies other than 50/60Hz, the magnetic (instantaneous) trip values are increased by the factor given below:

	16 2/3 - 60Hz	100Hz	200Hz	400Hz	DC
Approx. factor	1	1.1	1.2	1.5	1.5

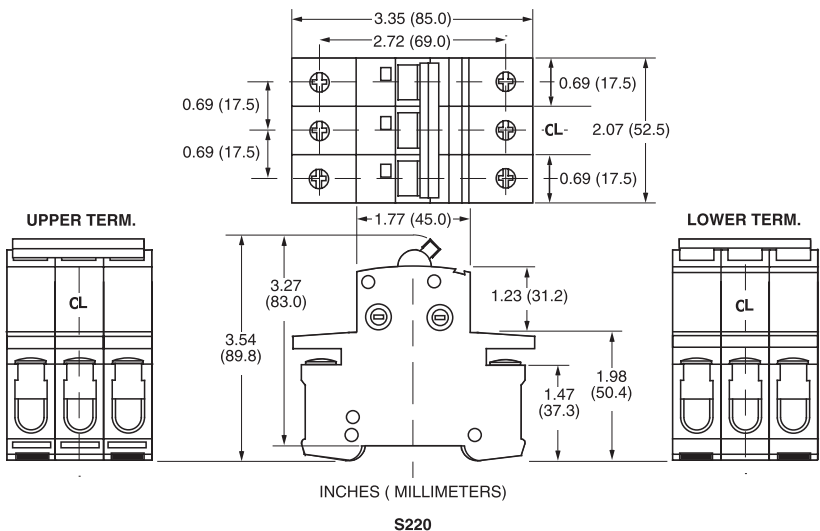
Thermal tripping is independent of frequency.

Approximate dimensions
S220, S280, S290

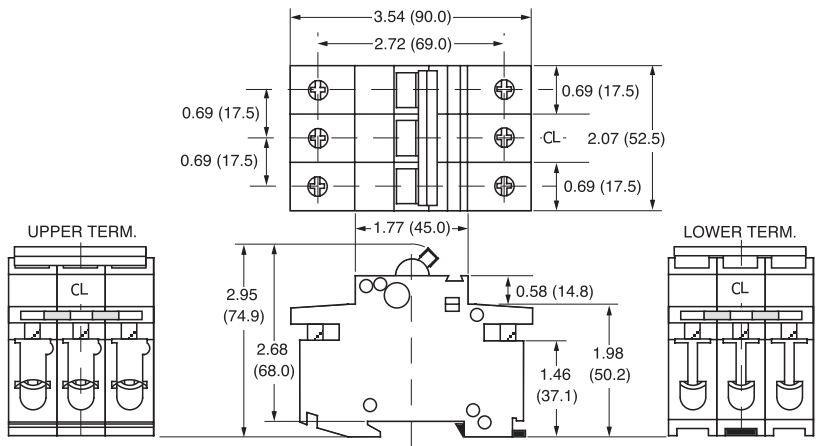
00.00 Inches
00.00 Millimeters

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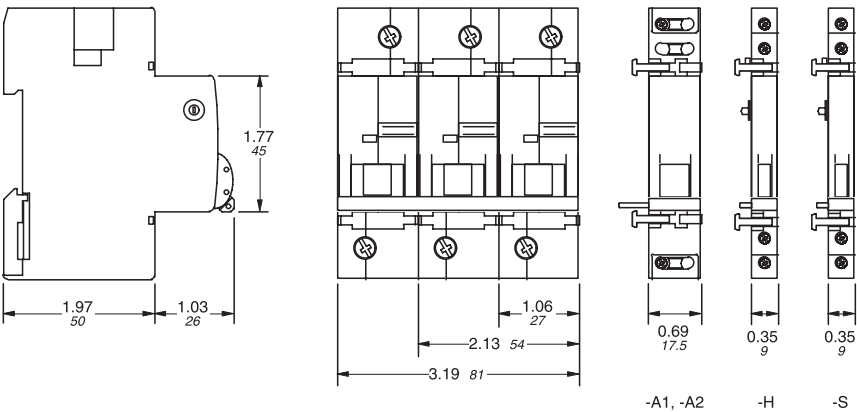
S220



S280



S290



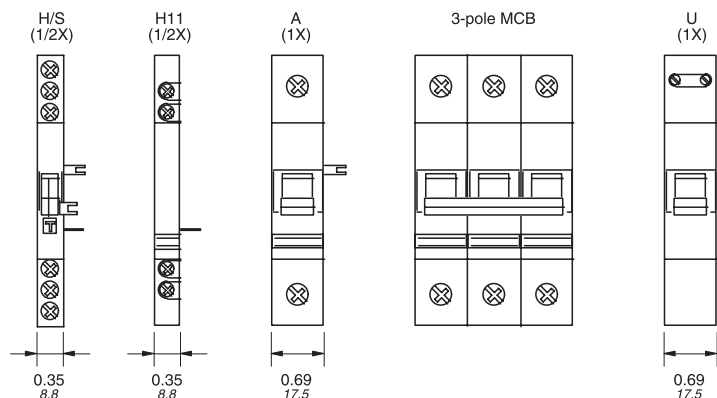
00.00
00.00
Inches
Millimeters

Approximate dimensions Accessories

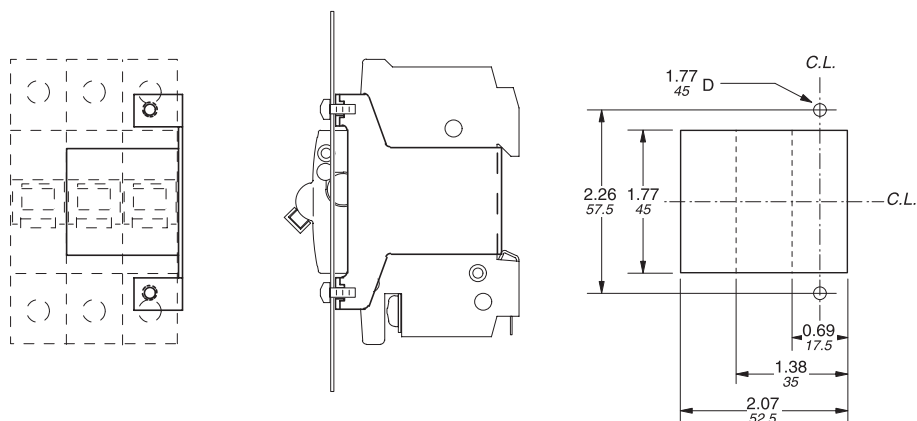
Accessories

Left side mtd

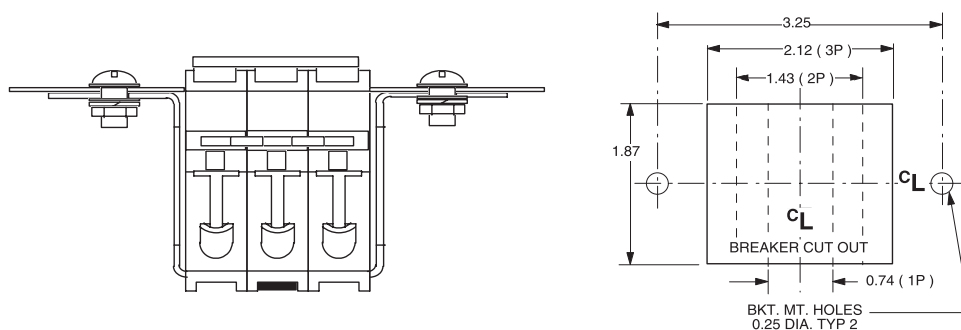
Left or right side mtd



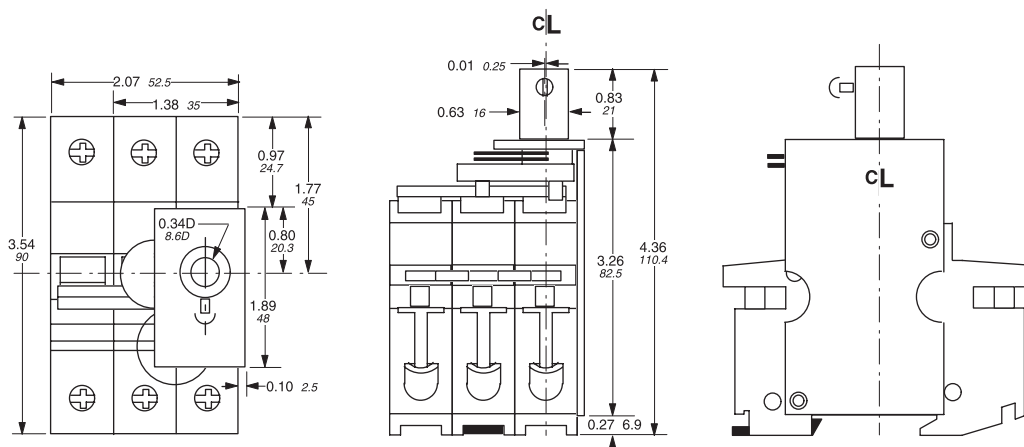
MB-CL



MB-3PD



RHS2-M





Supplementary Protectors S500



Description

Increasing energy requirements result in larger short-circuit currents which place heavy demands on protective switchgear regarding safety, reliability and switching capacities.

The S500 heavy-duty circuit breaker fulfills these requirements by virtue of its technical features. It is equipped with a thermal and/or electromagnetic release to protect circuits, motors, switchgear and systems from the effects of overload and short-circuit currents.

For the worldwide market, the S500 breakers carry UL, CSA, IEC, CE and many other agency approvals.

Features

- High breaking capacity
- Energy-limiting
- Current-limiting
- Extremely fast breaking time
- Optimal selectivity
- Various versions for special applications
- Compact dimensions, DIN cap size
- Easy and quick to install
- Easy to connect; finger safe terminals
- Wide range of accessories
- UL 1077 recognized 600VAC and 500VDC versions

S500

S500
S500

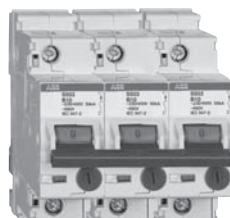
S500 600Y/347VAC Supplementary Protectors



S501-C16

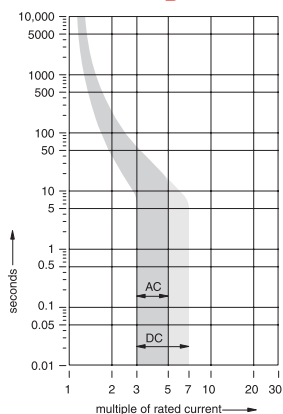


S502-C6

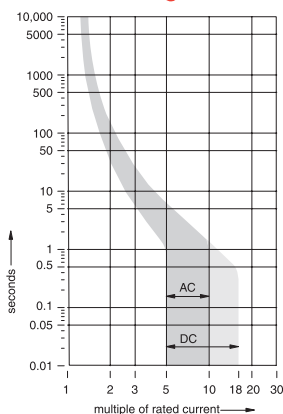


S503-C10

B



C



B UL 1077
VDE 0641 IEC 947-2

Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
1 pole				
6	S501-B6		C	8.90
10	S501-B10			
13	S501-B13			
16	S501-B16			
20	S501-B20			
25	S501-B25			
32	S501-B32			
40	S501-B40			
50	S501-B50			
63	S501-B63			
2 pole				
6	S502-B6		C	17.85
10	S502-B10			
13	S502-B13			
16	S502-B16			
20	S502-B20			
25	S502-B25			
32	S502-B32			
40	S502-B40			
50	S502-B50			
63	S502-B63			
3 pole				
6	S503-B6		C	25.36
10	S503-B10			
13	S503-B13			
16	S503-B16			
20	S503-B20			
25	S503-B25			
32	S503-B32			
40	S503-B40			
50	S503-B50			
63	S503-B63			

C UL 1077
VDE 0641 IEC 947-2

Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
1 pole				
6	S501-C6		C	8.90
10	S501-C10			
13	S501-C13			
16	S501-C16			
20	S501-C20			
25	S501-C25			
32	S501-C32			
40	S501-C40			
50	S501-C50			
63	S501-C63			
2 pole				
6	S502-C6		C	17.85
10	S502-C10			
13	S502-C13			
16	S502-C16			
20	S502-C20			
25	S502-C25			
32	S502-C32			
40	S502-C40			
50	S502-C50			
63	S502-C63			
3 pole				
6	S503-C6		C	25.36
10	S503-C10			
13	S503-C13			
16	S503-C16			
20	S503-C20			
25	S503-C25			
32	S503-C32			
40	S503-C40			
50	S503-C50			
63	S503-C63			

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S500

600Y/347VAC

Supplementary Protectors

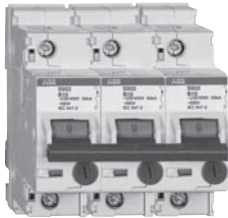
S500



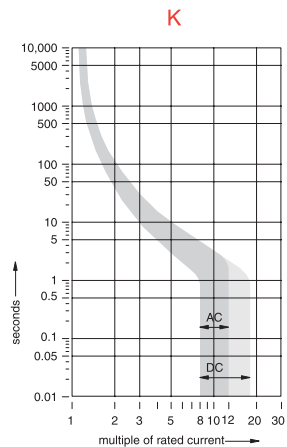
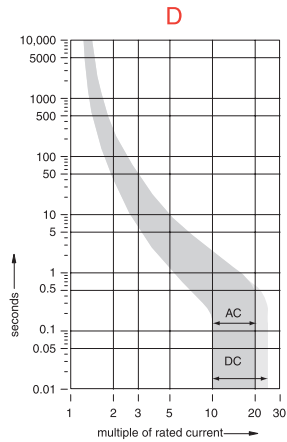
S501-D20



S502-D13



S503-K15



D UL 1077 CSA C22.2
VDE 0641 IEC 898

Rated current	Catalog number	List price	Delivery class	Wgt. oz. (1 Pc.)
1 pole				
13	S501-D13		C	8.90
16	S501-D16			
20	S501-D20			
25	S501-D25			
32	S501-D32			
40	S501-D40			
50	S501-D50			
63	S501-D63			
2 pole				
13	S502-D13		C	17.85
16	S502-D16			
20	S502-D20			
25	S502-D25			
32	S502-D32			
40	S502-D40			
50	S502-D50			
63	S502-D63			
3 pole				
13	S503-D13		C	25.36
16	S503-D16			
20	S503-D20			
25	S503-D25			
32	S503-D32			
40	S503-D40			
50	S503-D50			
63	S503-D63			

K UL 1077 CSA C22.2
VDE 0641 IEC 947-2

Rated current	Catalog number	List price	Delivery class	Wgt. oz. (1 Pc.)
1 pole				
0.1 – 0.15	S501-K0.15		C	8.90
0.14 – 0.21	S501-K0.21			
0.2 – 0.3	S501-K0.3			
0.28 – 0.42	S501-K0.42			
0.38 – 0.58	S501-K0.58			
0.53 – 0.8	S501-K0.8			
0.73 – 1.1	S501-K1.1			
1 – 1.5	S501-K1.5			
1.4 – 2.1	S501-K2.1			
2 – 3	S501-K3			
2.8 – 4.2	S501-K4.2			
3.8 – 5.8	S501-K5.8			
5.3 – 8	S501-K8			
7.3 – 11	S501-K11			
10 – 15	S501-K15			
14 – 20	S501-K20			
18 – 26	S501-K26			
23 – 32	S501-K32			
29 – 37	S501-K37			
34 – 41	S501-K41			
38 – 45	S501-K45			
2 pole				
0.1 – 0.15	S502-K0.15		C	17.85
0.14 – 0.21	S502-K0.21			
0.2 – 0.3	S502-K0.3			
0.28 – 0.42	S502-K0.42			
0.38 – 0.58	S502-K0.58			
0.53 – 0.8	S502-K0.8			
0.73 – 1.1	S502-K1.1			
1 – 1.5	S502-K1.5			
1.4 – 2.1	S502-K2.1			
2 – 3	S502-K3			
2.8 – 4.2	S502-K4.2			
3.8 – 5.8	S502-K5.8			
5.3 – 8	S502-K8			
7.3 – 11	S502-K11			
10 – 15	S502-K15			
14 – 20	S502-K20			
18 – 26	S502-K26			
23 – 32	S502-K32			
29 – 37	S502-K37			
34 – 41	S502-K41			
38 – 45	S502-K45			
3 pole				
0.1 – 0.15	S503-K0.15		C	25.36
0.14 – 0.21	S503-K0.21			
0.2 – 0.3	S503-K0.3			
0.28 – 0.42	S503-K0.42			
0.38 – 0.58	S503-K0.58			
0.53 – 0.8	S503-K0.8			
0.73 – 1.1	S503-K1.1			
1 – 1.5	S503-K1.5			
1.4 – 2.1	S503-K2.1			
2 – 3	S503-K3			
2.8 – 4.2	S503-K4.2			
3.8 – 5.8	S503-K5.8			
5.3 – 8	S503-K8			
7.3 – 11	S503-K11			
10 – 15	S503-K15			
14 – 20	S503-K20			
18 – 26	S503-K26			
23 – 32	S503-K32			
29 – 37	S503-K37			
34 – 41	S503-K41			

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S500

S500UC

600Y/347VAC - 600VDC

Supplementary Protectors

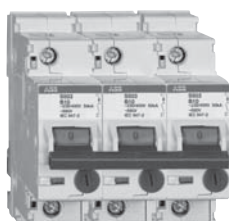
B UL 1077 CSA C22.2
VDE 0660



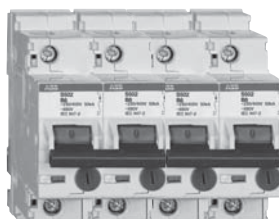
S501UC-B40



S502UC-B16



S503UC-B50



S504UC-B25

Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
1 pole				
6	S501UC-B6		C	8.90
10	S501UC-B10			
13	S501UC-B13			
16	S501UC-B16			
20	S501UC-B20			
25	S501UC-B25			
32	S501UC-B32			
40	S501UC-B40			
50	S501UC-B50			
63	S501UC-B63			

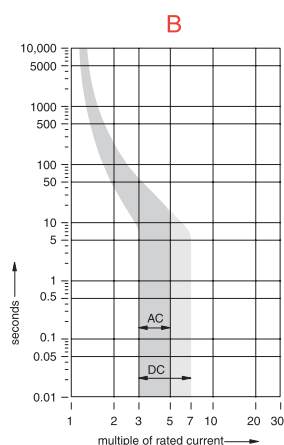
2 pole				
6	S502UC-B6		C	17.85
10	S502UC-B10			
13	S502UC-B13			
16	S502UC-B16			
20	S502UC-B20			
25	S502UC-B25			
32	S502UC-B32			
40	S502UC-B40			
50	S502UC-B50			
63	S502UC-B63			

Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
3 pole				
6	S503UC-B6		C	25.36
10	S503UC-B10			
13	S503UC-B13			
16	S503UC-B16			
20	S503UC-B20			
25	S503UC-B25			
32	S503UC-B32			
40	S503UC-B40			
50	S503UC-B50			
63	S503UC-B63			

4 pole				
6	S504UC-B6		C	35.75
10	S504UC-B10			
13	S504UC-B13			
16	S504UC-B16			
20	S504UC-B20			
25	S504UC-B25			
32	S504UC-B32			
40	S504UC-B40			
50	S504UC-B50			
63	S504UC-B63			

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time



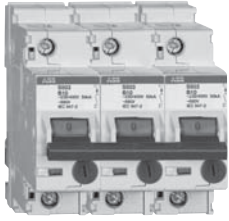
S500UC

600Y/347VAC - 600VDC

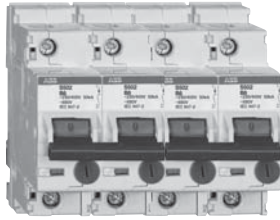
Supplementary Protectors

S500

K UL 1077 CSA C22.2
VDE 0660



S503UC-K8



S504UC-K20

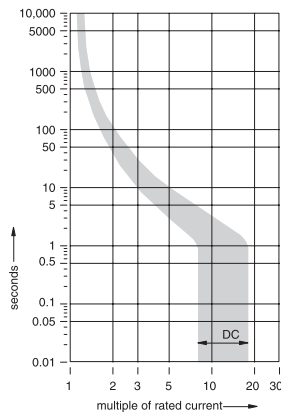
Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
1 pole				
0.1 – 0.15	S501UC-K0.15			
0.14 – 0.21	S501UC-K0.21			
0.2 – 0.3	S501UC-K0.3			
0.28 – 0.42	S501UC-K0.42			
0.38 – 0.58	S501UC-K0.58			
0.53 – 0.8	S501UC-K0.8			
0.73 – 1.1	S501UC-K1.1			
1 – 1.5	S501UC-K1.5			
1.4 – 2.1	S501UC-K2.1			
2 – 3	S501UC-K3			
2.8 – 4.2	S501UC-K4.2		C	8.90
3.8 – 5.8	S501UC-K5.8			
5.3 – 8	S501UC-K8			
7.3 – 11	S501UC-K11			
10 – 15	S501UC-K15			
14 – 20	S501UC-K20			
18 – 26	S501UC-K26			
23 – 32	S501UC-K32			
29 – 37	S501UC-K37			
34 – 41	S501UC-K41			
38 – 45	S501UC-K45			

2 pole				
0.1 – 0.15	S502UC-K0.15			
0.14 – 0.21	S502UC-K0.21			
0.2 – 0.3	S502UC-K0.3			
0.28 – 0.42	S502UC-K0.42			
0.38 – 0.58	S502UC-K0.58			
0.53 – 0.8	S502UC-K0.8			
0.73 – 1.1	S502UC-K1.1			
1 – 1.5	S502UC-K1.5			
1.4 – 2.1	S502UC-K2.1			
2 – 3	S502UC-K3			
2.8 – 4.2	S502UC-K4.2		C	17.85
3.8 – 5.8	S502UC-K5.8			
5.3 – 8	S502UC-K8			
7.3 – 11	S502UC-K11			
10 – 15	S502UC-K15			
14 – 20	S502UC-K20			
18 – 26	S502UC-K26			
23 – 32	S502UC-K32			
29 – 37	S502UC-K37			
34 – 41	S502UC-K41			
38 – 45	S502UC-K45			

Rated current	Catalog number	List price	Delivery class	Weight (oz.) 1 pc
3 pole				
0.1 – 0.15	S503UC-K0.15			
0.14 – 0.21	S503UC-K0.21			
0.2 – 0.3	S503UC-K0.3			
0.28 – 0.42	S503UC-K0.42			
0.38 – 0.58	S503UC-K0.58			
0.53 – 0.8	S503UC-K0.8			
0.73 – 1.1	S503UC-K1.1			
1 – 1.5	S503UC-K1.5			
1.4 – 2.1	S503UC-K2.1			
2 – 3	S503UC-K3			
2.8 – 4.2	S503UC-K4.2		C	25.36
3.8 – 5.8	S503UC-K5.8			
5.3 – 8	S503UC-K8			
7.3 – 11	S503UC-K11			
10 – 15	S503UC-K15			
14 – 20	S503UC-K20			
18 – 26	S503UC-K26			
23 – 32	S503UC-K32			
29 – 37	S503UC-K37			
34 – 41	S503UC-K41			
38 – 45	S503UC-K45			

4 pole				
0.1 – 0.15	S504UC-K0.15			
0.14 – 0.21	S504UC-K0.21			
0.2 – 0.3	S504UC-K0.3			
0.28 – 0.42	S504UC-K0.42			
0.38 – 0.58	S504UC-K0.58			
0.53 – 0.8	S504UC-K0.8			
0.73 – 1.1	S504UC-K1.1			
1 – 1.5	S504UC-K1.5			
1.4 – 2.1	S504UC-K2.1			
2 – 3	S504UC-K3			
2.8 – 4.2	S504UC-K4.2		C	35.75
3.8 – 5.8	S504UC-K5.8			
5.3 – 8	S504UC-K8			
7.3 – 11	S504UC-K11			
10 – 15	S504UC-K15			
14 – 20	S504UC-K20			
18 – 26	S504UC-K26			
23 – 32	S504UC-K32			
29 – 37	S504UC-K37			
34 – 41	S504UC-K41			
38 – 45	S504UC-K45			

UC-K



Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

S500

Accessories S500



S500-H11
Auxiliary contacts

Electrical accessories	Catalog number	List price	Delivery class	Wgt. oz. (1pc.)
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Auxiliary contacts

1 N.O./1 N.C. 2 N.O.	S500-H11 S500-H20		C	2.14
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For field mounting left side

Bell alarm

1 N.O./1 N.C. 2 N.O.	S500-S11 S500-S20		C	2.14
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For field mounting left side

Handle mechanism

	S500-RD3		C	6.5
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For use with 3 pole S500 MCBs and disconnect switch selector handles with 5mm shafts

Front mounting kit

For 1 pole	S500-ME1			2.1
1 to 3 poles	S500-ME2		A	2.9
1 to 7 poles	S500-ME3			3.6

Electrical accessories	Catalog number suffix	List price	Delivery class	Wgt. oz. (1pc.)
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Undervoltage release

12 V	-UA12			
24 V	-UA24			
48 V	-UA48		C	5.71
110 V	-UA110			
230 V	-UA230			
500 V	-UA500			

Factory mount only.

Shunt trip

12 V	-AL12			
24 V	-AL24			
48 V	-AL48		C	5.71
110 V	-AL110			
230 V	-AL230			
500 V	-AL500			

Factory mount only.

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Technical data

S500

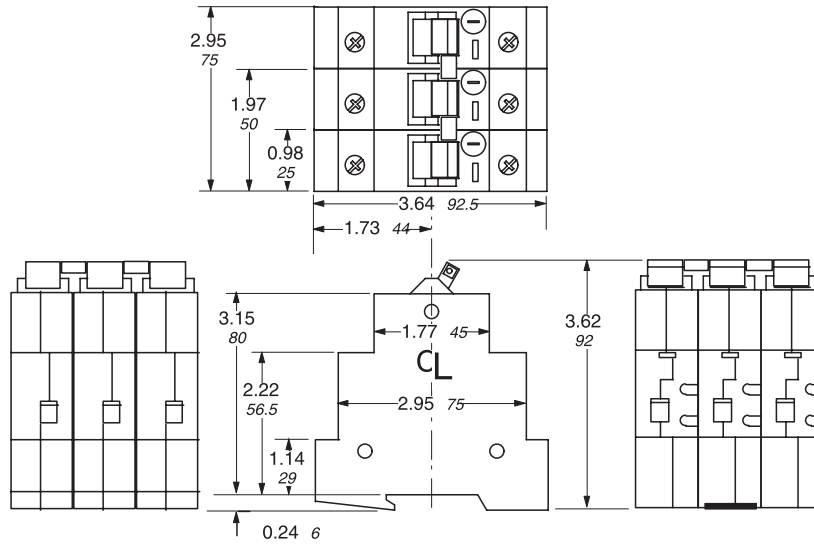
Item	S500-B, C, D	S500-K
Approvals: UL CSA VDE IEC	1077 C22.2 - No.235 0641/6.78 947-2	1077 C22.2 - No. 235 0641/6.78 —
No. of poles:	1,2,3, +N, +NA	1,2,3, +N, +NA
Tripping characteristic:	B,C,D.	K
Rated currents:	6 to 63A	0.1 to 45A
Rated voltage: UL/CSA single pole UL/CSA multi pole IEC single pole	277VAC 600VAC 690VAC	277VAC 600VAC 690VAC
Rated interrupting capacity: Single pole	6-25A – 30KA/240VAC 14KA/277VAC 32-63A – 18KA/240VAC 14KA/277VAC	0.15-25A – 30KA/240VAC 14KA/277VAC 26-45A – 18KA/240VAC 14KA/277VAC
Multi-pole	6-63A – 14KA/480VAC 6KA/600VAC	6-63A – 14KA/480VAC 6KA/600VAC
Frequency:	50/60 Hz	50/60Hz
Mounting position: Standard mounting:	optional 35mm DIN rail	optional 35mm DIN rail
Terminals:	Conductors from 16-4AWG (1-25sq mm)	Conductors from 16-4AWG (1-25sq mm)
Service life at rated load:	20,000 operations	20,000 operations
Calibration temperature:	40°C	40°C

Item	S500UC-B, K			
Approvals: UL CSA VDE	1077 C22.2 0660			
No. of poles:	1,2,3, 4			
Tripping characteristic:	B, K			
Rated currents:	B: 6 to 63A K: 0.15 to 45A			
Rated voltage: UL single pole UL multi pole IEC multi pole	277VAC/250VDC 600VAC/600VDC 690VAC/750VDC			
Rated interrupting capacity:	B single pole:			
	6 – 25A	18KA/240VAC	14KA/277VAC	30KA/250VDC
	32 – 63A	30KA/240VAC	14KA/277VAC	30KA/250VDC
	B two-pole:			
	6 – 63A	14KA/480VAC	6KA/600VAC	30KA/500VDC
	B three-pole:			
	6 – 63A	14KA/480VAC	6KA/600VAC	30KA/600VDC
	K single pole:			
	0.15 – 25A	30KA/240VAC	14KA/277VAC	30KA/250VDC
	32 – 63A	18KA/240VAC	14KA/277VAC	30KA/250VDC
	K two-pole:			
	0.15 – 45A	14KA/480VAC	6KA/600VAC	30KA/500VDC
	K three-pole:			
	0.5 – 45A	14KA/480VAC	6KA/600VAC	30KA/600VDC
Frequency:	50/60Hz			
Mounting position:	optional			
Standard mounting:	35mm DIN-rail			
Terminals:	Conductors from 16 to 4AWG (1-25sq mm)			
Service life at rated load:	20,000 operations			
Calibration temperature:	40°C			

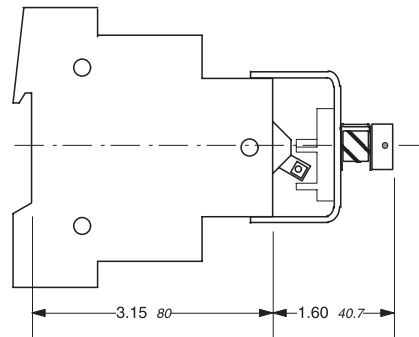
Approximate dimensions S500 Accessories

00.00 00.00 Inches
Millimeters

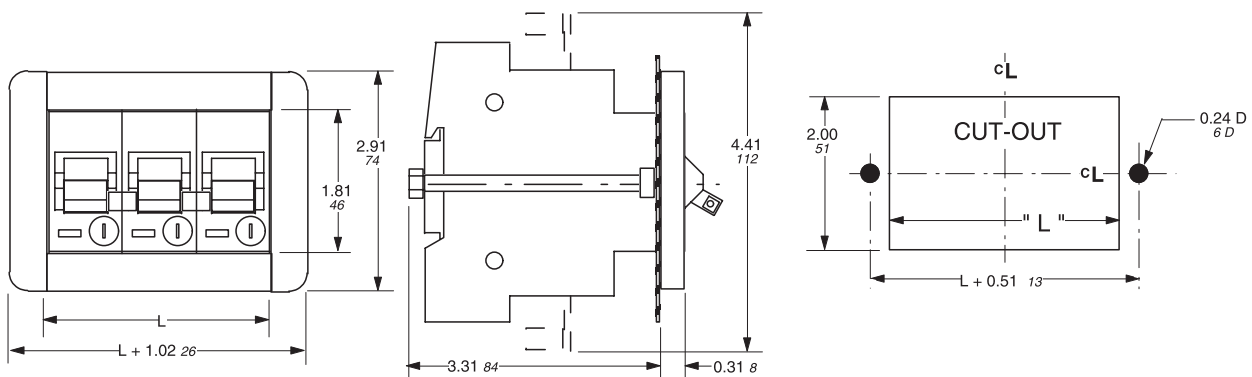
S500



S500-RD3 Handle mechanism



S500 Front mounting kit





System pro M compact Residual current devices F200 series



2 Pole

4 Pole

Description

RCDs provide ground fault equipment protection by monitoring the leakage of current to ground. The F200 series will trip when ground faults are detected in excess of the GF trip rating of the device. These devices provide GF protection only and are used in series with standard MCBs which provide overload and short circuit protection. The F200 series can be used as a main device providing GF protection for several MCB branch devices.

The F200 series is cURus recognized according to UL 1053 and to CSA C22.2 no.144.

The F202 is for use in single phase/two wire or two wire systems. The F204 is for use in three phase/four wire systems.

The F200 series RCDs replaces the F360 series with no change in form, fit or function.

The F200 have a profile similar to the S2 MCBs and can be used with the MCB bus-bars.

Residual current devices F200AC, F200A



F202



F204

AC type - for alternating current only

Breaker	GF trip level	Rated current	Catalog number	List price	Delivery class	Suggested order qty	Wgt. kg (1 Pc.)
F202AC Two pole 480VAC	10mA	16	F202AC-16/0.01		B	6	0.225
		25	F202AC-25/0.03				
		40	F202AC-40/0.03				
		63	F202AC-63/0.03				
	100mA	25	F202AC-25/0.1				
		40	F202AC-40/0.1				
		63	F202AC-63/0.1				
	300mA	25	F202AC-25/0.3				
		40	F202AC-40/0.3				
		63	F202AC-63/0.3				
	500mA	25	F202AC-25/0.5				
		40	F202AC-40/0.5				
		63	F202AC-63/0.5				
F204AC Four pole 480VAC	30mA	25	F204AC-25/0.03		B	3	0.375
		40	F204AC-40/0.03				
		63	F204AC-63/0.03				
	100mA	25	F204AC-25/0.1				
		40	F204AC-40/0.1				
		63	F204AC-63/0.1				
	300mA	25	F204AC-25/0.3				
		40	F204AC-40/0.3				
		63	F204AC-63/0.3				
	500mA	25	F204AC-25/0.5				
		40	F204AC-40/0.5				
		63	F204AC-63/0.5				

A type - for alternating current and/or current with DC components

Breaker	GF trip level	Rated current	Catalog number	List price	Delivery class	Suggested order qty	Wgt. kg (1 Pc.)
F202A Two pole 480VAC	10mA	16	F202A-16/0.01		B	6	0.225
		25	F202A-25/0.03				
		40	F202A-40/0.03				
		63	F202A-63/0.03				
	100mA	25	F202A-25/0.1				
		40	F202A-40/0.1				
		63	F202A-63/0.1				
	300mA	25	F202A-25/0.3				
		40	F202A-40/0.3				
		63	F202A-63/0.3				
	500mA	25	F202A-25/0.5				
		40	F202A-40/0.5				
		63	F202A-63/0.5				
F204A Four pole 480VAC	30mA	25	F204A-25/0.03		B	3	0.375
		40	F204A-40/0.03				
		63	F204A-63/0.03				
	100mA	25	F204A-25/0.1				
		40	F204A-40/0.1				
		63	F204A-63/0.1				
	300mA	25	F204A-25/0.3				
		40	F204A-40/0.3				
		63	F204A-63/0.3				
	500mA	25	F204A-25/0.5				
		40	F204A-40/0.5				
		63	F204A-63/0.5				

Delivery Class

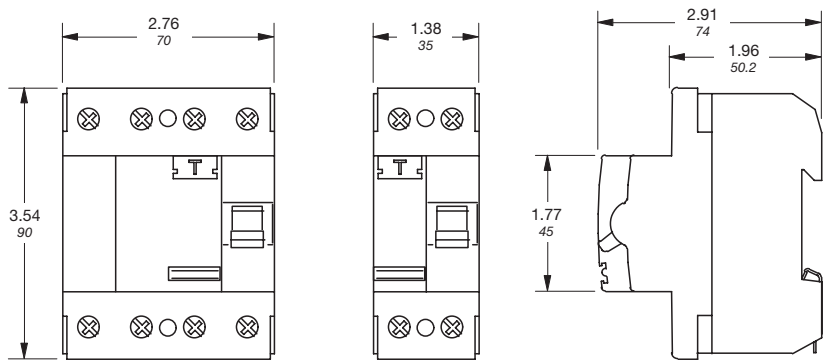
- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Approximate dimensions & circuit diagrams

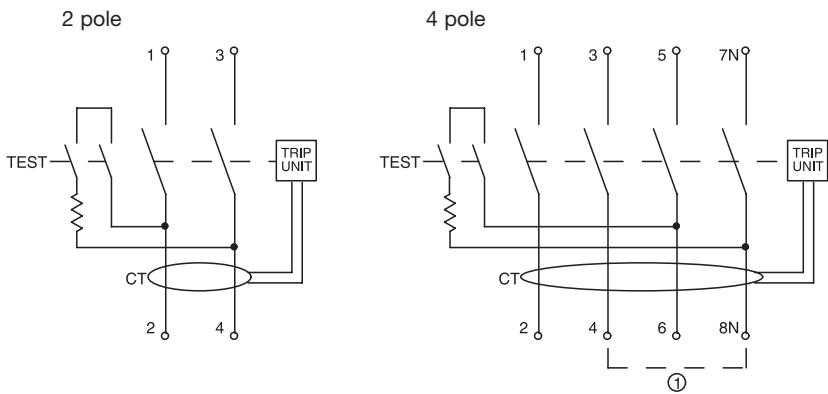
Residual current devices, F200

00.00 00.00 Inches
Millimeters

Approximate dimensions



Circuit diagrams



① For use on 3p/3w systems, add jumper between 4 and 8N for operation of test button.

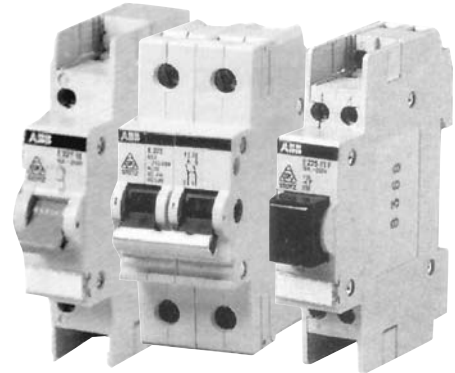
NOTES

100



System pro *M* compact

Modular installation equipment



Description

- Safe connection by box terminals
- Captive screws with Pozidrive slotted head, Pozidrive system, Gr. 1
- Snap-on labels available
- Quick mounting with snap-on clip, easily accessible and detachable at the bottom
- Protection against unintentional direct touch
- System approach for control and circuit protection
- Compact size that dimensionally matches the S2 MCB series
- Control and pilot functions can be along side protective devices
- DIN rail mounted with 45mm front opening
- For use in auxiliary and logic devices
- Provide additional user functions for system control and operation
- Include pushbuttons, indicating lights and selector switches
- ABB System pro *M* compatibility
- Most devices are UL 508 and CSA C22.2 N° 14 recognized and are IEC compliant
- Labeled with the CE Mark

Modular installation equipment

Switches, 240VAC

16 & 25A



E221-10

Type	Rated current	Catalog number	List price	Delivery schedule	Minimum order quantity	Weight (Oz.) 1 piece
Switches						
1 N.O. + 1 N.C.	16	E221-11		C	10	2.46
2 N.O. + 2 N.C.	16	E221-22				
3 N.O. + 1 N.C.	16	E221-31				
1 N.O.	16	E221-10		C	10	1.94
2 N.O.	16	E221-20				2.12
3 N.O.	16	E221-30				2.29
4 N.O.	16	E221-40				2.47
1 N.O. + 1 N.C.	25	E222-11		C	10	2.47
1 N.O.	25	E222-10				1.94
2 N.O.	25	E222-20				2.12
3 N.O.	25	E222-30				2.29
4 N.O.	25	E222-40				2.47
Form “C” switches						
1 Change-over contact	16	E221-6		C	10	2.12
2 Change-over contacts	16	E221-6/2				2.47
1 Change-over contact	25	E222-6		C	10	2.12
Form “C” switches (I-O-II, Hand-OFF-Automatic)						
1 Pole	16	E221-4		C	10	2.12
2 Pole	16	E221-4/2				2.47
1 Pole	25	E222-4		C	10	2.12

Note: Above devices are UL 508 recognized CSA C22.2 N° 14 approved and IEC certified.
A300 pilot duty

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Modular installation equipment

Disconnect switches

45, 63, 80 & 100A

Disc.
Sws.



E201/125r



E203/45r

Type	Rated current	Catalog number	List price	Delivery schedule	Suggested order qtys	Weight (Oz.) 1 piece
Single pole, 240V	45	E201/45r		C	10	2.82
	63	E201/63r				
	80	E201/80r				
	100	E201/100r				
	125	E201/125r				
Two pole, 415V	45	E202/45r		C	5	6.17
	63	E202/63r				
	80	E202/80r				
	100	E202/100r				
	125	E202/125r				
Three pole, 415V	45	E203/45r		C	3	9.52
	63	E203/63r				
	80	E203/80r				
	100	E203/100r				
	125	E203/125r				
Four pole, 415V	45	E204/45r		C	2	12.87
	63	E204/63r				
	80	E204/80r				
	100	E204/100r				
	125	E204/125r				

Above devices are IEC certified.

Isolator switches

The E201 series operate as disconnect switches and are typically used as a main disconnect for several branch MCB devices. The isolator switches offer no overcurrent protection. The E201 series is the same physical size and shape as the S260, S270 & S280 series. The switches include dual function terminals and can be connected via standard ABB busbar through the upper or lower terminals.

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
- B** - Stock to 4 weeks lead time
- C** - 6 to 8 week lead time

Modular installation equipment

Pilot devices



E225-11F



E227-10E

Type	Catalog number	List price	Delivery schedule	Pack units pcs.	Weight (Oz.) 1 piece
Pushbutton, 1 N.O. + 1 N.C. contact					
Grey	E225-11B		C	10	1.94
Red	E225-11C				
Green	E225-11D				
Yellow	E225-11E				
Black	E225-11F				
Blue	E225-11G				

Illuminated pushbutton, 1 N.O. contact with lamp, 120 VAC

Clear	E227-10B/110		C	10	1.94
Red	E227-10C/110				
Green	E227-10D/110				
Yellow	E227-10E/110				
Blue	E227-10G/110				

Pilot light with lamp, 120 VAC

Clear	E229-B/110		C	10	1.59
Red	E229-C/110				
Green	E229-D/110				
Yellow	E229-E/110				
Blue	E229-G/110				

Lamps

24 VAC	E10/24		C	1	0.14
120 VAC	E10/110				
230 VAC	E10/230				

Note: Above devices are UL 508 recognized and IEC certified.

Special features

- Safe connection via box terminals
- Captive screws with Phillips/Slotted head, Posidriv system, Gr. 1
- Snap-on labels available
- Protection against unintentional touch acc. to DIN VDE 0106 Part 100
- Lenses and pushbuttons in six colors

Elapsed time meter

Type	Catalog number	List price	Delivery schedule	Pack units pcs.	Weight (KG) 1 piece
24 VAC, 60 Hz	E233-24/60		C	1	0.045
120 VAC, 60 Hz	E233-120/60				
240 VAC, 60 Hz	E233-240/60				

- Non-resettable
- 100,000 hours (99999.99)

Delivery Class

- A** - Standard item, stock to 2 weeks lead time
B - Stock to 4 weeks lead time
C - 6 to 8 week lead time

Modular installation equipment

Technical data

Disc.
Sws.

Components for quick mounting onto DIN rails (35mm)

Mounting depth: 68mm
Mounting width: 1, 2, 3 and 4 pole switches = 17.5mm (= 1 module)

E220 Switches, 16 & 25A

Switching capacity: $1.25 I_n, 1.1 U_n, \cos \phi = 0.6$
Short-circuit withstanding capacity: 3 kA, 380V, $\cos \phi = 0.9$
Toggle sealable: In ON and OFF positions
Connection cross-sections: Up to $1 \times 6 \text{ mm}^2$ or $2 \times 2.5 \text{ mm}^2$
Rated AC voltage: 240 VAC UL/CSA (E171252)
250/440 VAC IEC

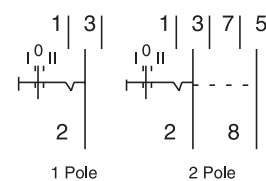
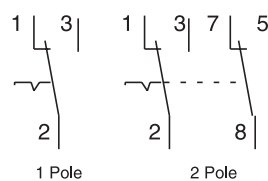
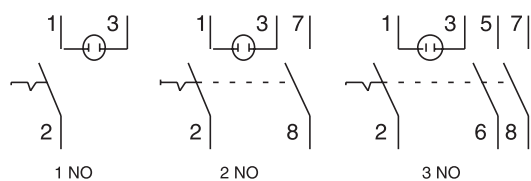
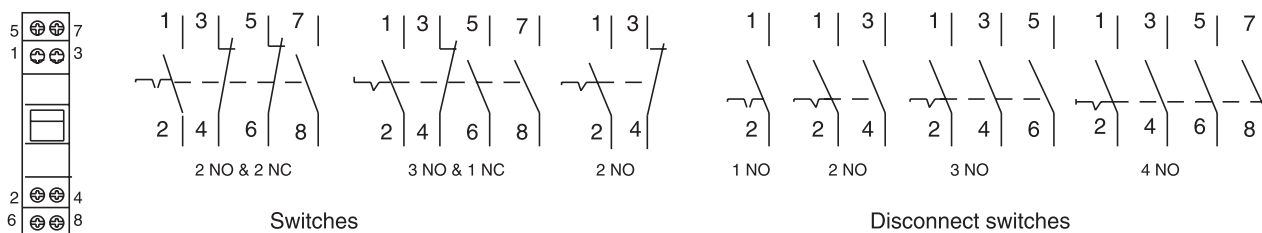
E240/270 Disconnect switches, 45, 63, 80, & 100A

Switching capacity: $1.25 I_n, 1.1 U_n, \cos \phi = 0.3$
Short-circuit withstanding capacity: E240 = 10kA, E270 = 25kA RMS
Connection cross-sections: E240 up to 25 mm^2
E270 up to 50 mm^2
Rated AC voltage: 240/400/415 VAC

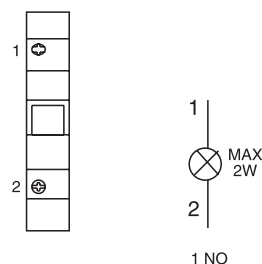
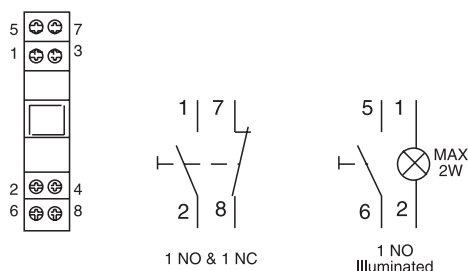
E Series components for quick mounting onto DIN rails (35mm)

Mounting depth: 68mm
Mounting width: 17.5mm (=1 module)
Color: RAL 7035, grey
Connection cross sections: Up to $1 \times 6 \text{ mm}^2$ or $2 \times 2.5 \text{ mm}^2$
Rated current: 16A
Rated voltage: 250 VAC IEC
Rated voltage: 240 VAC UL/CSA (E171252)

Terminal markings



Terminal assignments for pushbuttons and indicator lights



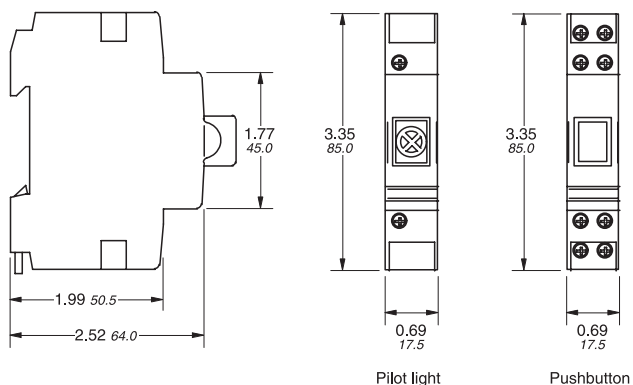
pro M MDRC

Modular installation equipment

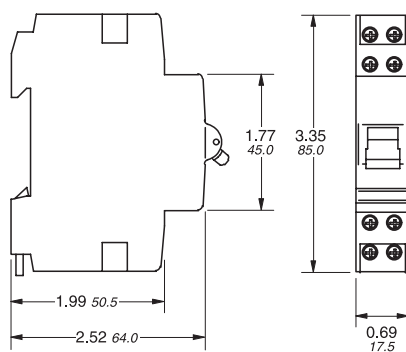
Approximate dimensions

00.00
00.00
Inches
Millimeters

E220

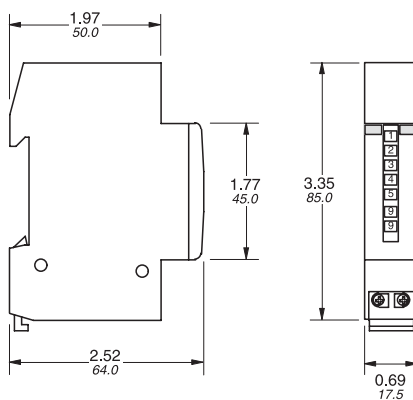


E220, 16 & 25A

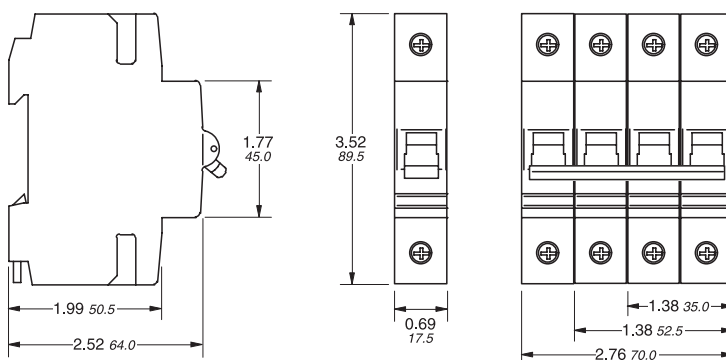


16 & 25A SWITCHES

E233



E240/270



E270

Quick information

Put a checkmark in the boxes below and fax it to your nearest ABB office to receive more information. Please fill in the following information (or attach a business card).

Name

Company

Address

City

Prov.

Postal Code

Telephone

Fax

Control Products

- ☐ AC & DC Contactors
- ☐ Cam Switches
- ☐ Definite Purpose Contactors
- ☐ Drive Contactors
- ☐ Electronic Timers
- ☐ Lighting Contactors
- ☐ Limit Switches
- ☐ Magnetic Starters
- ☐ Manual Motor Starters
- ☐ PLC
- ☐ Proximity Switches, Photoelectric & Ultrasonic Sensors
- ☐ Pushbuttons, Stacklights and Beacons
- ☐ Relays
- ☐ Safety and Monitoring Relays
- ☐ Softstarters
- ☐ Wiring Ducts

Circuit Protective Devices

- ☐ Arc Guard Monitor
- ☐ Disconnect Switches, Fusible and Non-Fusible
- ☐ Low Voltage Power Circuit Breakers
- ☐ Molded Case Circuit Breakers
- ☐ Supplementary Protectors

Power Quality Products

- ☐ Active Filter
- ☐ Anti-Resonance Capacitor Banks
- ☐ Automatic Capacitor Banks
- ☐ Dynacomp
- ☐ Fixed Capacitor Banks
- ☐ Harmonic Filter (shunt)
- ☐ Individual Capacitors
- ☐ Surge Capacitor

Entrelec Products

- ☐ Analog Converters
- ☐ Digital Converters
- ☐ Industrial pluggable relays & Optos
- ☐ Logic Control relay
- ☐ Overvoltage protection
- ☐ PCB connectors
- ☐ PLB connectors
- ☐ PLC
- ☐ PLC's Pre-wiring system
- ☐ Power Blocks
- ☐ Power Supplies
- ☐ Remote Input/Output
- ☐ Rotary switches
- ☐ Terminal Blocks
- ☐ Timers & Monitoring (Entrelec & SSAC)

Regional Offices across Canada

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Tel.: (902) 864-8236
Fax: (902) 865-8252

Eastern Region

ABB Inc.

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Tel.: (514) 420-3100
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Central Region

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Brampton, ON L6T 5S6
Tel.: (905) 460-3000
Fax: (905) 460-3395

Mid-West Region

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Calgary, AB T2G 4E8
Tel.: (403) 278-7111
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Electro-Tech Sales Ltd.

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Winnipeg, MB R3H 0K2
Tel.: (204) 694-7063
Fax: (204) 697-0568

Central Region

Adanac Sales Inc.

3 - 2075 Brigantine Drive
Coquitlam, BC V3K 7B8
Tel.: (604) 540-0220
Fax: (604) 540-0124



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