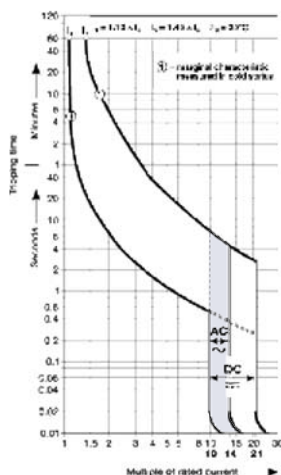

US CATALOG

Miniature Circuit Breakers



S200-K

Supplemental protectors—UL 1077, CSA 22.2 No. 235



Number of poles	Rated current		Number of poles	Rated current	
	I_n A	Catalog number		I_n A	Catalog number
1	0.5	S201-K0.5	3	0.5	S203-K0.5
	1	S201-K1		1	S203-K1
	1.6	S201-K1.6		1.6	S203-K1.6
	2	S201-K2		2	S203-K2
	3	S201-K3		3	S203-K3
	4	S201-K4		4	S203-K4
	5	S201-K5		5	S203-K5
	6	S201-K6		6	S203-K6
	8	S201-K8		8	S203-K8
	10	S201-K10		10	S203-K10
	13	S201-K13		13	S203-K13
	15	S201-K15		15	S203-K30
	16	S201-K16		16	S203-K16
	20	S201-K20		20	S203-K20
	25	S201-K25		25	S203-K25
	30	S201-K30		30	S203-K30
32	S201-K32	32	S203-K32		
40	S201-K40	40	S203-K40		
50	S201-K50	50	S203-K50		
60A	S201-K60	60A	S203-K60		
63	S201-K63	63	S203-K63		
1 + NA	0.5	S201-K0.5NA	3 + NA	0.5	S203-K0.5NA
	1	S201-K1NA		1	S203-K1NA
	1.6	S201-K1.6NA		1.6	S203-K1.6NA
	2	S201-K2NA		2	S203-K2NA
	3	S201-K3NA		3	S203-K3NA
	4	S201-K4NA		4	S203-K4NA
	6	S201-K6NA		6	S203-K6NA
	8	S201-K8NA		8	S203-K8NA
	10	S201-K10NA		10	S203-K10NA
	13	S201-K13NA		13	S203-K13NA
	16	S201-K16NA		16	S203-K16NA
	20	S201-K20NA		20	S203-K20NA
	25	S201-K25NA		25	S203-K25NA
	32	S201-K32NA		32	S203-K32NA
	40	S201-K40NA		40	S203-K40NA
	50	S201-K50NA		50	S203-K50NA
63	S201-K63NA	63	S203-K63NA		
2	0.5	S202-K0.5	4	0.5	S204-K0.5
	1	S202-K1		1	S204-K1
	1.6	S202-K1.6		1.6	S204-K1.6
	2	S202-K2		2	S204-K2
	3	S202-K3		3	S204-K3
	4	S202-K4		4	S204-K4
	5	S202-K5		5	S204-K5
	6	S202-K6		6	S204-K6
	8	S202-K8		8	S204-K8
	10	S202-K10		10	S204-K10
	13	S202-K13		13	S204-K13
	15	S202-K15		15	S204-K15
	16	S202-K16		16	S204-K16
	20	S202-K20		20	S204-K20
	25	S202-K25		25	S204-K25
	30	S202-K30		30	S204-K30
32	S202-K32	32	S204-K32		
40	S202-K40	40	S204-K40		
50	S202-K50	50	S204-K50		
60A	S202-K60	60A	S204-K60		
63	S202-K63	63	S204-K63		

Note: Switching neutral is noted by "NA" in the catalog number.

Technical specifications

S200, S200P, S200MR, S200MUC—UL 1077, CSA 22.2 No. 235

Technical specifications

	S200	S200P	S200MR	S200MUC
Number of poles	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
Trip curves	B, C, D, K, Z	B, C, D, K, Z	K	C, K, Z
Rated current	0.5-63 A	0.2-63 A	0.2-63 A	0.2-63 A
Rated voltage	277/Y480 VAC 60/110 VDC (1/2-pole)	277/Y480 VAC	277/Y480 VAC	277/Y480 VAC 250/500 VDC (1/2-pole)
Short circuit interrupt rating	6 kA	10 kA (up to 25 A) 6 kA (32-63 A)	10 kA	10 kA (DC) 6 kA (AC)
Calibration temperature	25 °C	25 °C	25 °C	25 °C
Protection degree	IP 20	IP 20	IP 20	IP 20
Mounting position	Any	Any	Any	Any
Mounting/installation	35 mm DIN rail	35 mm DIN rail	35 mm DIN rail	35 mm DIN rail
Terminal/cable size	AWG 18-4	AWG 18-4	AWG 18-4	AWG 18-4
Service life, mechanical	20,000 operations	20,000 operations	20,000 operations	20,000 operations
Ambient temperature	-25 °C to +55 °C	-25 °C to +55 °C	-25 °C to +55 °C	-25 °C to +55 °C
Shock resistance (IEC 60068-2-27)	25 g - 2 shocks - 13 ms	25 g - 2 shocks - 13 ms	25 g - 2 shocks - 13 ms	25 g - 2 shocks - 13 ms

Auxiliary contact S2C-H6R and signal contact S2C-S6R

Rated current	10
Rated voltage AC/DC	24
Contact	1 pole, single throw
Connection capacity mm ²	18-14 AWG (0.75...2.5)
Tightening torque	11 in. lbs (1.2 Nm)
Shock resistance acc. to DIN IEC 68-2-6	5 g, 20 frequency cycles 5...150...5 Hz at 24 VAC/DC, 5 mA auto-reclosing < 10 ms
Mechanical service life	10,000 operations

Shunt trip

		S2C-A1	S2C-A2
Rated voltage	AC	12...60 V	110...415 V
	DC	12...60 V	110...250 V
Maximum release duration		<10 ms	<10 ms
Minimum release voltage	AC	7 V	55 V
	DC	10 V	80 V
Consumption on release	AC	40...200 VA	55...210 VA
	DC	40...200 VA	55...110 VA
Coil resistance		3.7 V	225 V
Terminals		18...6/0.75-16 AWG/mm ²	18...6/0.75-16 AWG/mm ²
Tightening torque		18/2 in. lbs/Nm	18/2 in. lbs/Nm

Undervoltage release

		S2C-UA 12 DC	S2C-UA 24 AC	S2C-UA 24 DC	S2C-UA 48 AC	S2C-UA 48 DC	S2C-UA 110 AC	S2C-UA 110 DC	S2C-UA 230 AC	S2C-UA 230 DC	S2C-UA 400 AC
Standards		IEC/EN 60947-1110...415 V									
Rated voltage	AC		24 V		48 V		110 V		230 AC		400 V
	DC	12 V		24 V		48 V		110 V		230 V	
Frequency		50 ... 60 HZ									
Release trip		0.35 UnOVO 0.7 Un V									
Terminals		2 x 16/2 x 1.5 AWG/mm ²									
Consumption		0.2 VA	3.6 VA	2 VA	3.6 VA	2.1 VA	3.5 VA	2.2 VA	3.7 VA	2.3 VA	2.4 VA
Resistance to corrosion		constant atmosphere: 23/83 – 40/93 – 55/20; variable atmosphere: 25/95 – 40/93 °C/RH									
Protection degree		IPXXB / IP2X									
Tightening torque		3.5/0.4 in. lbs/Nm									

Technical specifications

S200, S200P, and S200MR—UL 1077, CSA 22.2 No. 235

Internal resistance and power loss per pole

Internal resistance per pole in mΩ, power loss per pole in W.

S200 and S200P

Type	Rated current I _n A	Device series B, C, D ¹⁾		Device series K		Device series Z	
		mΩ	W	mΩ	W	mΩ	W
S200 and S200P	0.5	5500	1.4	6340	1.6	10100	2.5
	1	1440	1.4	1550	1.6	2270	2.3
	1.6	630	1.6	695	1.8	1100	2.8
	2	460	1.8	460	1.9	619	2.5
	3	150	1.3	165	1.5	202	1.8
	4	110	1.8	120	2.0	149	2.4
	6	55	2.0	52	1.9	104	3.7
	8	15	1.0	38	1.5	53.9	3.45
	10	13.3	1.3	12.6	2.0	17.5	1.7
	13	13.3	2.3	12.6	1.26	—	—
	16	7.0	1.8	7.7	2.0	10.9	2.8
	20	6.25	2.5	6.7	2.7	6.0	2.4
	25	5.0	3.2	4.6	2.9	4.1	2.6
	32	3.6	3.7	3.5	3.6	2.8	2.9
	40	3.0	4.8	2.8	4.5	2.5	4.1
	50	1.3	3.25	1.25	2.9	1.8	4.4
	63	1.2	4.8	0.7	5.2	1.3	5.2

¹⁾Current intensities 0.5-4 apply exclusively to C-type trip characteristics.

S200MR

Rated current A	Internal resistance per pole		Power loss per pole W
	mΩ	W	
0.2	25300	1.01	
0.3	13700	1.23	
0.5	4740	1.19	
0.75	2067	1.16	
1	1270	1.27	
1.5	610	1.56	
2	442	1.77	
3	140	1.26	
4	109	1.75	
5	50	1.26	
6	54	1.94	
8	22	1.41	
10	18.2	1.82	
13	14.8	2.50	
15	8.1	1.83	
16	11.1	2.83	
20	8.5	3.40	
25	5.5	3.43	
30	3.8	3.39	
32	4.6	4.70	
35	3.9	4.76	
40	2.8	4.40	
50	1.7	4.25	
60	1.7	6.18	
63	1.9	7.56	

Temperature derating

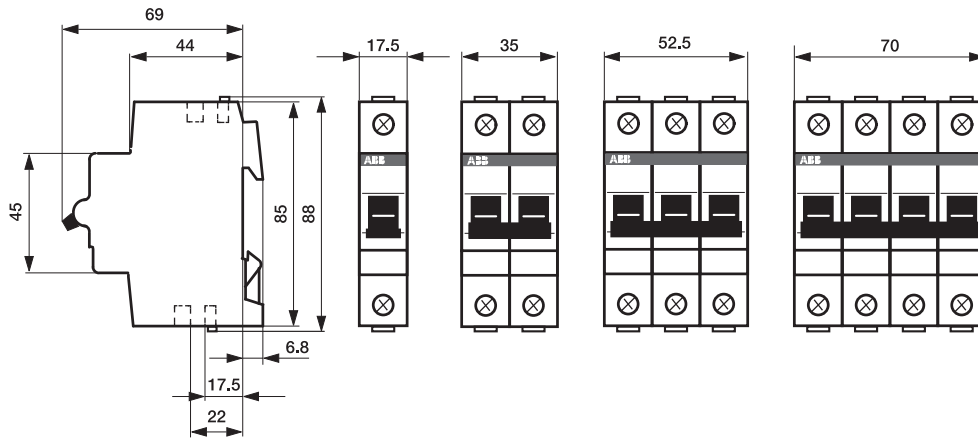
Max operating current depending on the ambient temperature of a circuit breaker characteristics type B, C and D

B, C, D, K, and Z	Ambient temperatures T (C°/F°)											
	-40/-40	-30/-22	-20/-4	-10/14	0/32	10/50	20/68	30/86	40/104	50/122	60/140	70/158
Amps	0.67	0.65	0.62	0.60	0.58	0.55	0.53	0.50	0.47	0.44	0.41	0.37
	1.33	1.29	1.25	1.20	1.15	1.11	1.05	1.00	0.94	0.88	0.82	0.75
	2.13	2.07	2.00	1.92	1.85	1.77	1.69	1.60	1.51	1.41	1.31	1.19
	2.67	2.58	2.49	2.40	2.31	2.21	2.11	2.00	1.89	1.76	1.63	1.49
	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.0	2.8	2.6	2.4	2.2
	5.3	5.2	5.0	4.8	4.6	4.4	4.2	4.0	3.8	3.5	3.3	3.0
	8.0	7.7	7.5	7.2	6.9	6.6	6.3	6.0	5.7	5.3	4.9	4.5
	10.7	10.3	10.0	9.6	9.2	8.8	8.4	8.0	7.5	7.1	6.5	6.0
	13.3	12.9	12.5	12.0	11.5	11.1	10.5	10.0	9.4	8.8	8.2	7.5
	17.3	16.8	16.2	15.6	15.0	14.4	13.7	13.0	12.3	11.5	10.6	9.7
	21.3	20.7	20.0	19.2	18.5	17.7	16.9	16.0	15.1	14.1	13.1	11.9
	26.7	25.8	24.9	24.0	23.1	22.1	21.1	20.0	18.9	17.6	16.3	14.9
	33.3	32.3	31.2	30.0	28.9	27.6	26.4	25.0	23.6	22.0	20.4	18.6
	42.7	41.3	39.9	38.5	37.0	35.4	33.7	32.0	30.2	28.2	26.1	23.9
	53.3	51.6	49.9	48.1	46.2	44.2	42.2	40.0	37.7	35.3	32.7	29.8
66.7	64.5	62.4	60.1	57.7	55.3	52.7	50.0	47.1	44.1	40.8	37.3	
84.0	81.3	78.6	75.7	72.7	69.6	66.4	63.0	59.4	55.6	51.4	47.0	
112.6	107.2	102.1	97.2	92.6	88.2	84.0	80.0	76.0	72.2	68.6	65.2	
140.7	134.0	127.6	121.6	115.8	110.3	105.0	100.0	95.0	90.3	85.7	81.5	
175.9	167.5	159.5	151.9	144.7	137.8	131.3	125.0	118.8	113.8	107.2	101.8	

Approximate dimensions

S200, S200P, S200MR, and S200MUC—UL 1077, CSA 22.2 No. 235

S200, S200P, S200MUC



S200MR

