

Technical catalogue 2013/2014

# S800/S500

## The High Performance MCB



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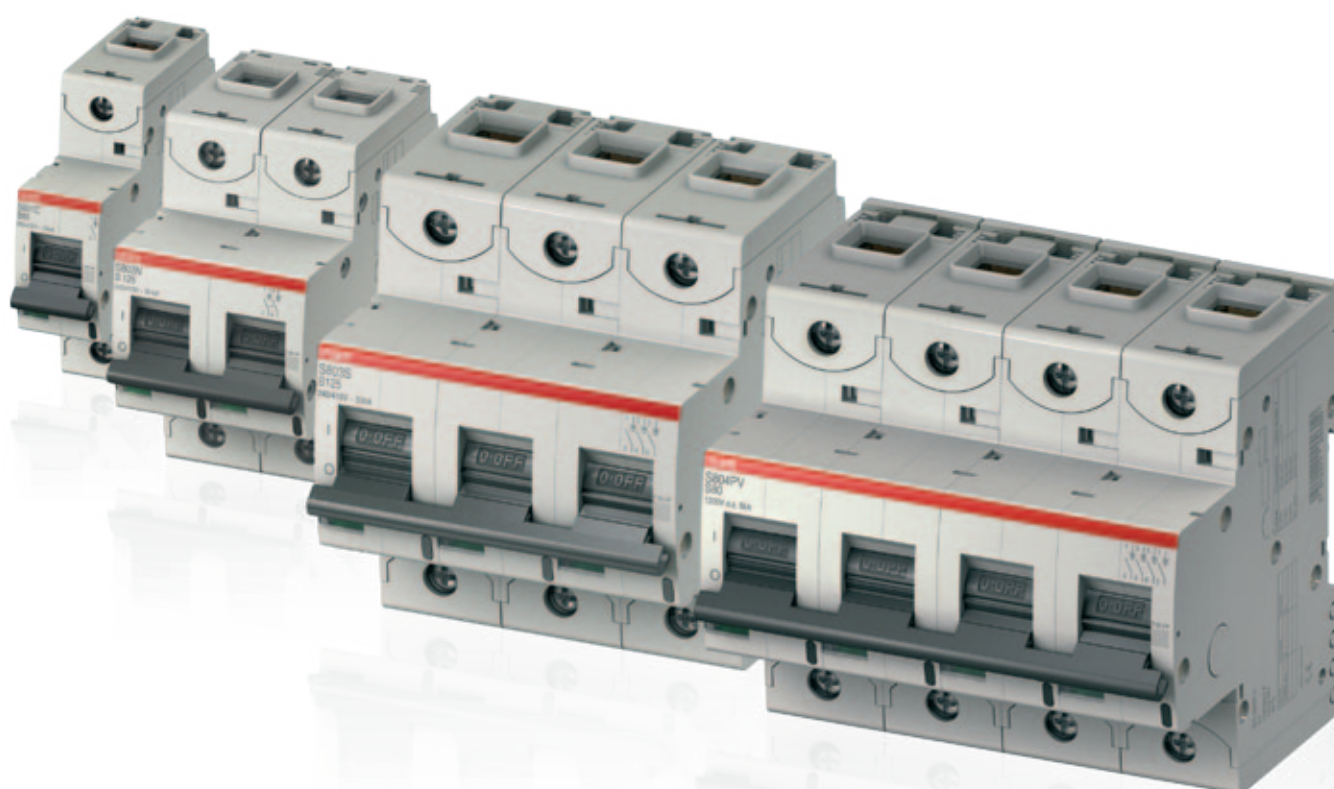
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# Overview S800

		<b>S800S</b>	<b>S803S-KM</b>	<b>S800S-UC</b>	<b>S800N</b>	<b>S800C</b>	<b>S800B</b>
<b>Tripping characteristics</b>		<b>B, C, D, K</b>	<b>KM</b>	<b>UCB, UCK</b>	<b>B, C, D</b>	<b>B, C, D, K</b>	<b>B, C, D, K</b>
Standards		IEC/EN 60947-2, IEC/EN 60898-1	IEC/EN 60947-2,	IEC/EN 60947-2	IEC/EN 60947-2, IEC/EN 60898-1	EN 60947-2, EN 60898-1	IEC 60947-2
Poles		1 ... 4	3	1 ... 4	1 ... 4	1 ... 4	1 ... 4
Rated current $I_n$	A	6 ... 125	20 ... 80	10 ... 125	6 ... 125	10 ... 125	Char. B, C: 32 ... 125 Char. D, K: 32 ... 100
Rated frequency $f$	Hz	50/60	50/60	DC	50/60	50/60	50/60
Rated insulation voltage $U_i$ acc. to IEC/EN 60664-1	V	AC 690	AC 690	DC 750	AC 690	AC 500	AC 440
Rated impulse withstand voltage $U_{imp}$ (1.2/50 $\mu$ s)	kV	8	8	8	8	8	4
Overvoltage category		IV	IV	IV	IV	IV	III
Pollution degree		3	3	1- and 2-pole: 3 3- and 4-pole: 2	3	3	3
Suitability for isolation		yes	yes	yes	yes	yes	yes
<b>Data acc. to IEC/EN 60898-1</b>							
Rated operational voltage $U_e$	V	AC 230/400	–	–	AC 230/400	AC 230/400	–
Rated short-circuit capacity $I_{cs}$	kA	Char. B, C, D: 230/400 V (10 ... 80A) = 25 kA	–	–	230/400 V (10 ... 80A) = 20 kA	Char. B, C, D: 230/400 V = 15 kA	–
Service short-circuit capacity $I_{cs}$	kA	Char. B, C, D: 230/400 V (10 ... 80A) = 12.5 kA	–	–	230/400 V (10 ... 80A) = 10 kA	Char. B, C, D: 230/400 V = 7.5 kA	–
<b>Data acc. to IEC/EN 60947-2</b>							
Rated operational voltage $U_e$	V	AC 400/690 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500	AC 690	1-pole: DC 250 2-pole: DC 500 3-pole: DC 750 4-pole: DC 750	AC 400/690 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500	AC 254/440 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500	AC 230/400
Rated ultimate short-circuit capacity $I_{cu}$	kA	AC 240/415V = 50 kA AC 254/440V = 30 kA AC 400/690V (up to 80A) = 6 kA AC 400/690V (100 ... 125A) = 4.5 kA DC 125V (1-pole) = 30 kA DC 250V (2-pole) = 30 kA DC 375V (3-pole) = 30 kA DC 500V (4-pole) = 30 kA	AC 240/415V = 50 kA AC 254/440V = 30 kA AC 400/690V = 6 kA DC 375V = 30 kA	DC 250V (1-pole) = 50 kA DC 500V (2-pole) = 50 kA DC 750V (3-pole) = 50 kA DC 750V (4-pole) = 50 kA	AC 240/415V = 36 kA AC 254/440V = 20 kA AC 400/690V = 4.5 kA DC 125V (1-pole) = 20 kA DC 250V (2-pole) = 20 kA DC 375V (3-pole) = 20 kA DC 500V (4-pole) = 20 kA	AC 240/415V = 25 kA AC 254/440V = 15 kA DC 125V (1-pole) = 10 kA DC 250V (2-pole) = 10 kA DC 375V (3-pole) = 10 kA DC 500V (4-pole) = 10 kA	AC 230/400V = 16 kA
Rated service short-circuit capacity $I_{cs}$	kA	AC 240/415V = 40 kA AC 254/440V (up to 80A) = 22.5 kA AC 254/440V (100 ... 125A) = 15 kA AC 400/690V (up to 80A) = 4 kA AC 400/690V (100 ... 125A) = 3 kA DC 125V (1-pole) = 30 kA DC 250V (2-pole) = 30 kA DC 375V (3-pole) = 30 kA DC 500V (4-pole) = 30 kA	AC 240/415V = 40 kA AC 254/440V = 22.5 kA AC 400/690V = 4 kA  DC 375V = 30 kA	DC 250V (1-pole) = 50 kA DC 500V (2-pole) = 50 kA DC 750V (3-pole) = 50 kA DC 750V (4-pole) = 50 kA	AC 240/415V = 30 kA AC 254/440V (up to 80A) = 15 kA AC 254/440V (100 ... 125A) = 10 kA AC 400/690V = 3 kA DC 125V (1-pole) = 20 kA DC 250V (2-pole) = 20 kA DC 375V (3-pole) = 20 kA DC 500V (4-pole) = 20 kA	AC 240/415V = 18 kA AC 254/440V = 10 kA DC 125V (1-pole) = 10 kA DC 250V (2-pole) = 10 kA DC 375V (3-pole) = 10 kA DC 500V (4-pole) = 10 kA	AC 230/400V = 10 kA

	<b>S800PV-S</b>	<b>S800PV-M</b>	<b>S802PV-M-H</b>	<b>S800U</b>	<b>S804U-UCZ</b>	<b>S804U-PVS</b>
<b>Tripping characteristics</b>	<b>B</b>	–	–	<b>K, Z</b>	<b>UCZ</b>	<b>PVS</b>
Standards	IEC / EN 60947-2	IEC / EN 60947-3	IEC / EN 60947-3	UL489 IEC 60947-2	UL489	UL489B (Photovoltaic)
Poles	2 ... 4	2 ... 4	2 (polarized)	1 ... 4	4	4
Rated current <b>I<sub>e</sub></b>	A 10 ... 125	32, 63, 125	32, 63, 100	10 – 100	10 – 80	5
Rated frequency <b>f</b>	Hz –	–	–	50/60	–	–
Rated insulation voltage <b>U<sub>i</sub></b> acc. to IEC/EN 60664-1	V DC 1500	DC 1500	DC 1500	AC 690	DC 1500	DC 1500
Rated impulse withstand voltage <b>U<sub>imp</sub></b> (1.2/50µs)	kV 8	8	8	8	8	8
Overtoltage category	III	III	III	IV	IV	IV
Pollution degree	2	2	2	3	3	3
Suitability for isolation	yes	yes	yes	yes	yes	yes
<b>Data acc. to IEC/EN 60947-3</b>						
Rated operational voltage <b>U<sub>e</sub></b>	V –	2-pole: DC 800 3-pole: DC 1200 4-pole: DC 1200	2-pole: DC 1000	–	–	–
Min. operating voltage	V –	–	–			
Rated short-term withstand current <b>I<sub>sw</sub></b>	kA –	1.5	1.5			
Rated short-circuit making capacity <b>I<sub>cm</sub></b>	kA –	0.5	0.5			
Utilisation category	–	DC-21A	DC-21A			
<b>Data acc. to IEC/EN 60947-2</b>						
Rated operational voltage <b>U<sub>e</sub></b>	V 2-pole DC 800: 10 ... 80A DC 600: 100 ... 125A 3-pole DC 1200: 10 ... 80A DC 1000: 100 ... 125A 4-pole DC 1200: 10 ... 125A	–	–	AC 240/415		
Rated ultimate short-circuit capacity <b>I<sub>cu</sub></b>	kA 5	–	–	1-pole: AC 240V 30 kA multipole: AC 415V 50 kA	–	–
Rated service short-circuit capacity <b>I<sub>cs</sub></b>	kA 5	–	–	1-pole: AC 240V 25 kA multipole: AC 415V 40 kA	–	–
Data acc. to UL / CSA						
Rated voltage	V			AC 240	DC 600	DC 1000
Short-circuit current rating acc. to UL 489	kA			1-pole 30 kA multipole: 50 kA	10 kA	
Short-circuit current rating acc. to UL 489B	kA					3 kA

# Applications

The range of applications of the S800 and S500 high performance circuit breakers is extremely varied: from building installations, transport and renewable energies to an uninterrupted power supply. The S800 and S500 high performance circuit breakers are reliable switches: rated ultimate short-circuit breaking capacity up to 50 kA, adjustable or fixed rated

tripping current, current rating up to 125 A, the most varied of characteristics and much more.

The S800 and S500 are flexible, yet at the same time meet the highest safety requirements. See the variety for yourself!



Building installation



Transport





Industry



Renewable energy

## Coming soon CMS (Current Measurement Sensor) for S800



20CC415402F0001

### Simple and flexible assembling

The CMS is a multichannel current measurement system for branch monitoring of alternating (AC) and direct (DC) currents up to 160 A. Various sensor types allow the mounting in every installation environment.

### Advantages

- A sensor for all types of current
- Minimal space requirements
- Simple installation
- Always retrofitted and expanded



20CC481084F0001

## New Products S802PV-M-H Switch-disconnector up to 1000 V DC



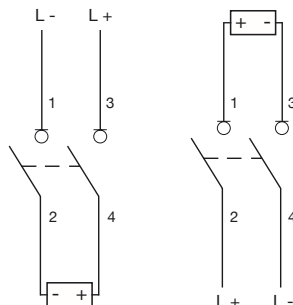
20CC413373F0001

### Less poles, more clarity

This disconnecter might be small, but it's a giant when it comes to performance. With a nominal current range up to 100 A, it covers a large range of applications. At the same time, the compact S802PV-M-H is only 54 mm wide. As a result, space requirement is minimal.

### Advantages of the new S802PV-M-H

- 2-pole switch-disconnector for voltages up to  $U_e$  1000 V DC
- 50 % less power loss compared to a 4-pole design
- No derating up to ambient temperatures of 60 °C
- Highly compact thanks to 54 mm width
- Rated current range of 32 A, 63 A and 100 A
- Full range of S800 accessories can be used





# New Products

## S804U-UCZ High performance MCB acc. to UL489

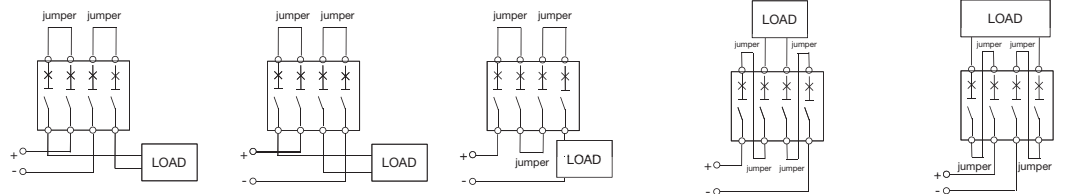


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### For voltages up to 600 V DC

This breaker is designed for networks up to 600 VDC., e.g. datacenter.

With its short-circuit current rating of 10kA you will get a good solution regarding safety and reliability. This breaker is tested acc. to UL489 (cULus).



Ampere Rating [A]	10–32	40–63	70–80
Conductor Type	Single conductor per terminal – copper only, 60/75 °C wire	Single conductor per terminal – copper only, 60°C wire only	Single conductor per terminal – copper only, 60°C wire only
AWG, Wire Range	14 AWG–2 AWG Cu, solid or stranded	1/0 AWG–8 AWG Cu, solid or stranded	1/0 AWG–8 AWG Cu, solid or stranded
Jumper Length [ft]	1	1	2
Jumper Length [cm]	30.5	30.5	61

## S804U-PVS5 High performance MCB for GFDI

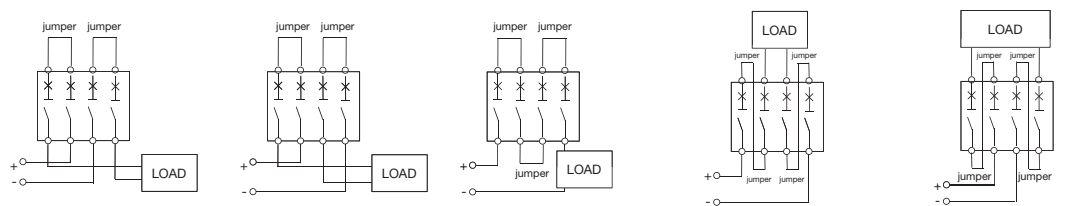


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GFDI = Ground Fault Detector Interrupter

The new S804U-PVS5 is for GFDI application (Ground-Fault Detector Interrupter) in photovoltaic systems.

The breaker is tested acc. to UL489B for 1000 VDC.



Ampere Rating [A]	10–32	40–63	70–80
Conductor Type	Single conductor per terminal – copper only, 60/75 °C wire	Single conductor per terminal – copper only, 60°C wire only	Single conductor per terminal – copper only, 60°C wire only
AWG, Wire Range	14 AWG–2 AWG Cu, solid or stranded	1/0 AWG–8 AWG Cu, solid or stranded	1/0 AWG–8 AWG Cu, solid or stranded
Jumper Length [ft]	1	1	2
Jumper Length [cm]	30.5	30.5	61

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# S800C-B Characteristic B

$I_{CU} = 25 \text{ kA}$ ; with interchangeable cage terminal



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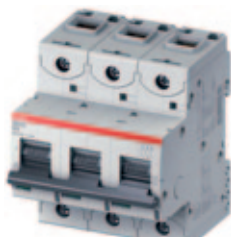
$I_{cu}$ [kA]	Rated current [A]	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
25	10	S801C-B10	2CCS881001R0105	12087	0.25	1
25	13	S801C-B13	2CCS881001R0135	12247	0.25	1
25	16	S801C-B16	2CCS881001R0165	12407	0.25	1
25	20	S801C-B20	2CCS881001R0205	12568	0.25	1
25	25	S801C-B25	2CCS881001R0255	12728	0.25	1
25	32	S801C-B32	2CCS881001R0325	12889	0.25	1
25	40	S801C-B40	2CCS881001R0405	13046	0.25	1
25	50	S801C-B50	2CCS881001R0505	13206	0.25	1
25	63	S801C-B63	2CCS881001R0635	13367	0.25	1
25	80	S801C-B80	2CCS881001R0805	13527	0.25	1
25	100	S801C-B100	2CCS881001R0825	13688	0.25	1
25	125	S801C-B125	2CCS881001R0845	13848	0.25	1



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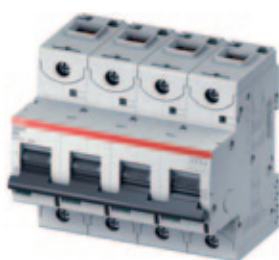
25	10	S802C-B10	2CCS882001R0105	12094	0.49	1
25	13	S802C-B13	2CCS882001R0135	12254	0.49	1
25	16	S802C-B16	2CCS882001R0165	12414	0.49	1
25	20	S802C-B20	2CCS882001R0205	12575	0.49	1
25	25	S802C-B25	2CCS882001R0255	12735	0.49	1
25	32	S802C-B32	2CCS882001R0325	12896	0.49	1
25	40	S802C-B40	2CCS882001R0405	13053	0.49	1
25	50	S802C-B50	2CCS882001R0505	13213	0.49	1
25	63	S802C-B63	2CCS882001R0635	13374	0.49	1
25	80	S802C-B80	2CCS882001R0805	13534	0.49	1
25	100	S802C-B100	2CCS882001R0825	13695	0.49	1
25	125	S802C-B125	2CCS882001R0845	13855	0.49	1



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25	10	S803C-B10	2CCS883001R0105	12100	0.74	1
25	13	S803C-B13	2CCS883001R0135	12261	0.74	1
25	16	S803C-B16	2CCS883001R0165	12421	0.74	1
25	20	S803C-B20	2CCS883001R0205	12582	0.74	1
25	25	S803C-B25	2CCS883001R0255	12742	0.74	1
25	32	S803C-B32	2CCS883001R0325	12902	0.74	1
25	40	S803C-B40	2CCS883001R0405	13060	0.74	1
25	50	S803C-B50	2CCS883001R0505	13220	0.74	1
25	63	S803C-B63	2CCS883001R0635	13381	0.74	1
25	80	S803C-B80	2CCS883001R0805	13541	0.74	1
25	100	S803C-B100	2CCS883001R0825	13701	0.74	1
25	125	S803C-B125	2CCS883001R0845	13862	0.74	1



2CC0413265F0001



25	10	S804C-B10	2CCS884001R0105	12117	0.98	1
25	13	S804C-B13	2CCS884001R0135	12278	0.98	1
25	16	S804C-B16	2CCS884001R0165	12438	0.98	1
25	20	S804C-B20	2CCS884001R0205	12599	0.98	1
25	25	S804C-B25	2CCS884001R0255	12759	0.98	1
25	32	S804C-B32	2CCS884001R0325	12919	0.98	1
25	40	S804C-B40	2CCS884001R0405	13077	0.98	1
25	50	S804C-B50	2CCS884001R0505	13237	0.98	1
25	63	S804C-B63	2CCS884001R0635	13398	0.98	1
25	80	S804C-B80	2CCS884001R0805	13558	0.98	1
25	100	S804C-B100	2CCS884001R0825	13718	0.98	1
25	125	S804C-B125	2CCS884001R0845	13879	0.98	1



# S800C-C Characteristic C

$I_{cu} = 25 \text{ kA}$ ; with interchangeable cage terminal

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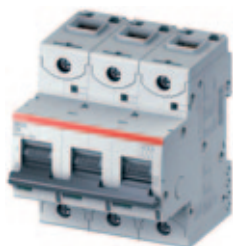
$I_{cu}$ [kA]	Rated current [A]	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
25	10	S801C-C10	2CCS881001R0104	12124	0.25	1
25	13	S801C-C13	2CCS881001R0134	12285	0.25	1
25	16	S801C-C16	2CCS881001R0164	12445	0.25	1
25	20	S801C-C20	2CCS881001R0204	12605	0.25	1
25	25	S801C-C25	2CCS881001R0254	12766	0.25	1
25	32	S801C-C32	2CCS881001R0324	12926	0.25	1
25	40	S801C-C40	2CCS881001R0404	13084	0.25	1
25	50	S801C-C50	2CCS881001R0504	13244	0.25	1
25	63	S801C-C63	2CCS881001R0634	13404	0.25	1
25	80	S801C-C80	2CCS881001R0804	13565	0.25	1
25	100	S801C-C100	2CCS881001R0824	13725	0.25	1
25	125	S801C-C125	2CCS881001R0844	13886	0.25	1



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25	10	S802C-C10	2CCS882001R0104	12131	0.49	1
25	13	S802C-C13	2CCS882001R0134	12292	0.49	1
25	16	S802C-C16	2CCS882001R0164	12452	0.49	1
25	20	S802C-C20	2CCS882001R0204	12612	0.49	1
25	25	S802C-C25	2CCS882001R0254	12773	0.49	1
25	32	S802C-C32	2CCS882001R0324	12933	0.49	1
25	40	S802C-C40	2CCS882001R0404	13091	0.49	1
25	50	S802C-C50	2CCS882001R0504	13251	0.49	1
25	63	S802C-C63	2CCS882001R0634	13411	0.49	1
25	80	S802C-C80	2CCS882001R0804	13572	0.49	1
25	100	S802C-C100	2CCS882001R0824	13732	0.49	1
25	125	S802C-C125	2CCS882001R0844	13893	0.49	1



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25	10	S803C-C10	2CCS883001R0104	12148	0.74	1
25	13	S803C-C13	2CCS883001R0134	12308	0.74	1
25	16	S803C-C16	2CCS883001R0164	12469	0.74	1
25	20	S803C-C20	2CCS883001R0204	12629	0.74	1
25	25	S803C-C25	2CCS883001R0254	12780	0.74	1
25	32	S803C-C32	2CCS883001R0324	12940	0.74	1
25	40	S803C-C40	2CCS883001R0404	13107	0.74	1
25	50	S803C-C50	2CCS883001R0504	13268	0.74	1
25	63	S803C-C63	2CCS883001R0634	13428	0.74	1
25	80	S803C-C80	2CCS883001R0804	13589	0.74	1
25	100	S803C-C100	2CCS883001R0824	13749	0.74	1
25	125	S803C-C125	2CCS883001R0844	13909	0.74	1



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25	10	S804C-C10	2CCS884001R0104	12155	0.98	1
25	13	S804C-C13	2CCS884001R0134	12315	0.98	1
25	16	S804C-C16	2CCS884001R0164	12476	0.98	1
25	20	S804C-C20	2CCS884001R0204	12636	0.98	1
25	25	S804C-C25	2CCS884001R0254	12797	0.98	1
25	32	S804C-C32	2CCS884001R0324	12957	0.98	1
25	40	S804C-C40	2CCS884001R0404	13114	0.98	1
25	50	S804C-C50	2CCS884001R0504	13275	0.98	1
25	63	S804C-C63	2CCS884001R0634	13435	0.98	1
25	80	S804C-C80	2CCS884001R0804	13596	0.98	1
25	100	S804C-C100	2CCS884001R0824	13756	0.98	1
25	125	S804C-C125	2CCS884001R0844	13916	0.98	1

# S800C-D Characteristic D

## $I_{CU} = 25 \text{ kA}$ ; with interchangeable cage terminal



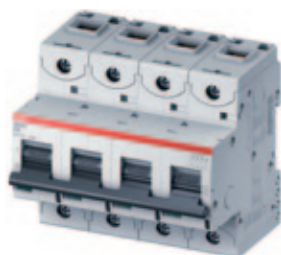
2CC04 13270F0001



2CC04 13271F0001



2CC04 13272F0001



2CC04 13273F0001



$I_{cu}$ [kA]	Rated current [A]	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
25	10	S801C-D10	2CCS881001R0101	12162	0.25	1
25	13	S801C-D13	2CCS881001R0131	12322	0.25	1
25	16	S801C-D16	2CCS881001R0161	12483	0.25	1
25	20	S801C-D20	2CCS881001R0201	12643	0.25	1
25	25	S801C-D25	2CCS881001R0251	12803	0.25	1
25	32	S801C-D32	2CCS881001R0321	12964	0.25	1
25	40	S801C-D40	2CCS881001R0401	13121	0.25	1
25	50	S801C-D50	2CCS881001R0501	13282	0.25	1
25	63	S801C-D63	2CCS881001R0631	13442	0.25	1
25	80	S801C-D80	2CCS881001R0801	13602	0.25	1
25	100	S801C-D100	2CCS881001R0821	13763	0.25	1
25	125	S801C-D125	2CCS881001R0841	13923	0.25	1
25	10	S802C-D10	2CCS882001R0101	12179	0.49	1
25	13	S802C-D13	2CCS882001R0131	12339	0.49	1
25	16	S802C-D16	2CCS882001R0161	12490	0.49	1
25	20	S802C-D20	2CCS882001R0201	12650	0.49	1
25	25	S802C-D25	2CCS882001R0251	12810	0.49	1
25	32	S802C-D32	2CCS882001R0321	12971	0.49	1
25	40	S802C-D40	2CCS882001R0401	13138	0.49	1
25	50	S802C-D50	2CCS882001R0501	13299	0.49	1
25	63	S802C-D63	2CCS882001R0631	13459	0.49	1
25	80	S802C-D80	2CCS882001R0801	13619	0.49	1
25	100	S802C-D100	2CCS882001R0821	13770	0.49	1
25	125	S802C-D125	2CCS882001R0841	13930	0.49	1
25	10	S803C-D10	2CCS883001R0101	12186	0.74	1
25	13	S803C-D13	2CCS883001R0131	12346	0.74	1
25	16	S803C-D16	2CCS883001R0161	12506	0.74	1
25	20	S803C-D20	2CCS883001R0201	12667	0.74	1
25	25	S803C-D25	2CCS883001R0251	12827	0.74	1
25	32	S803C-D32	2CCS883001R0321	12988	0.74	1
25	40	S803C-D40	2CCS883001R0401	13145	0.74	1
25	50	S803C-D50	2CCS883001R0501	13305	0.74	1
25	63	S803C-D63	2CCS883001R0631	13466	0.74	1
25	80	S803C-D80	2CCS883001R0801	13626	0.74	1
25	100	S803C-D100	2CCS883001R0821	13787	0.74	1
25	125	S803C-D125	2CCS883001R0841	13947	0.74	1
25	10	S804C-D10	2CCS884001R0101	12193	0.98	1
25	13	S804C-D13	2CCS884001R0131	12353	0.98	1
25	16	S804C-D16	2CCS884001R0161	12513	0.98	1
25	20	S804C-D20	2CCS884001R0201	12674	0.98	1
25	25	S804C-D25	2CCS884001R0251	12834	0.98	1
25	32	S804C-D32	2CCS884001R0321	12995	0.98	1
25	40	S804C-D40	2CCS884001R0401	13152	0.98	1
25	50	S804C-D50	2CCS884001R0501	13312	0.98	1
25	63	S804C-D63	2CCS884001R0631	13473	0.98	1
25	80	S804C-D80	2CCS884001R0801	13633	0.98	1
25	100	S804C-D100	2CCS884001R0821	13794	0.98	1
25	125	S804C-D125	2CCS884001R0841	13954	0.98	1

# S800C-K Characteristic K

$I_{cu} = 25 \text{ kA}$ ; with interchangeable cage terminal

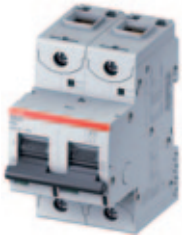
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$I_{cu}$ [kA]	Rated current [A]	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
25	10	S801C-K10	2CCS881001R0427	12209	0.25	1
25	13	S801C-K13	2CCS881001R0447	12360	0.25	1
25	16	S801C-K16	2CCS881001R0467	12520	0.25	1
25	20	S801C-K20	2CCS881001R0487	12681	0.25	1
25	25	S801C-K25	2CCS881001R0517	12841	0.25	1
25	32	S801C-K32	2CCS881001R0537	13008	0.25	1
25	40	S801C-K40	2CCS881001R0557	13169	0.25	1
25	50	S801C-K50	2CCS881001R0577	13329	0.25	1
25	63	S801C-K63	2CCS881001R0597	13480	0.25	1
25	80	S801C-K80	2CCS881001R0627	13640	0.25	1
25	100	S801C-K100	2CCS881001R0637	13800	0.25	1
25	125	S801C-K125	2CCS881001R0647	13961	0.25	1



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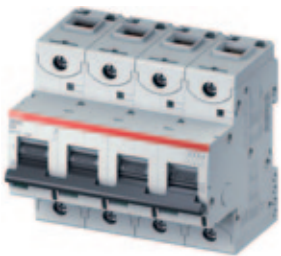
25	10	S802C-K10	2CCS882001R0427	12216	0.49	1
25	13	S802C-K13	2CCS882001R0447	12377	0.49	1
25	16	S802C-K16	2CCS882001R0467	12537	0.49	1
25	20	S802C-K20	2CCS882001R0487	12698	0.49	1
25	25	S802C-K25	2CCS882001R0517	12858	0.49	1
25	32	S802C-K32	2CCS882001R0537	13015	0.49	1
25	40	S802C-K40	2CCS882001R0557	13176	0.49	1
25	50	S802C-K50	2CCS882001R0577	13336	0.49	1
25	63	S802C-K63	2CCS882001R0597	13497	0.49	1
25	80	S802C-K80	2CCS882001R0627	13657	0.49	1
25	100	S802C-K100	2CCS882001R0637	13817	0.49	1
25	125	S802C-K125	2CCS882001R0647	13978	0.49	1



2CC0413276F0001



25	10	S803C-K10	2CCS883001R0427	12223	0.74	1
25	13	S803C-K13	2CCS883001R0447	12384	0.74	1
25	16	S803C-K16	2CCS883001R0467	12544	0.74	1
25	20	S803C-K20	2CCS883001R0487	12704	0.74	1
25	25	S803C-K25	2CCS883001R0517	12865	0.74	1
25	32	S803C-K32	2CCS883001R0537	13022	0.74	1
25	40	S803C-K40	2CCS883001R0557	13183	0.74	1
25	50	S803C-K50	2CCS883001R0577	13343	0.74	1
25	63	S803C-K63	2CCS883001R0597	13503	0.74	1
25	80	S803C-K80	2CCS883001R0627	13664	0.74	1
25	100	S803C-K100	2CCS883001R0637	13824	0.74	1
25	125	S803C-K125	2CCS883001R0647	13985	0.74	1



2CC0413277F0001



25	10	S804C-K10	2CCS884001R0427	12230	0.98	1
25	13	S804C-K13	2CCS884001R0447	12391	0.98	1
25	16	S804C-K16	2CCS884001R0467	12551	0.98	1
25	20	S804C-K20	2CCS884001R0487	12711	0.98	1
25	25	S804C-K25	2CCS884001R0517	12872	0.98	1
25	32	S804C-K32	2CCS884001R0537	13039	0.98	1
25	40	S804C-K40	2CCS884001R0557	13190	0.98	1
25	50	S804C-K50	2CCS884001R0577	13350	0.98	1
25	63	S804C-K63	2CCS884001R0597	13510	0.98	1
25	80	S804C-K80	2CCS884001R0627	13671	0.98	1
25	100	S804C-K100	2CCS884001R0637	13831	0.98	1
25	125	S804C-K125	2CCS884001R0647	13992	0.98	1



# S800 Accessories

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2CCS413069F0001



Auxiliary contact	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Auxiliary contact	S800-AUX	2CCS800900R0011	1206802	0.05	1



2CCS413070F0001



Combined auxiliary and signal contact	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Auxiliary/signal contact	S800-AUX/ALT	2CCS800900R0021	1206819	0.05	1



2CCS413067F0001

Disconnectable neutral conductor 63 A	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Disconnectable neutral conductor 63 A	S800-NT	2CCS800900R0061	1208196	0.12	1



2CCS413358F0001

Remote Switching Unit *	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Remote Switching Unit S800-RSU-H	S800-RSU-H	2CCS800900R0501	1411244	0.3	1
Remote Switching Unit S800W-RSU	S800W-RSU	2CCS800900R0511	1411169	0.3	1

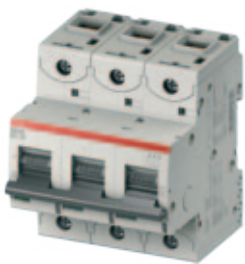
\* High performance circuit breaker is not included in delivery



2CCS413357F0001

S800-RSU cable incl. plug	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
3 meters cable 0,5 mm <sup>2</sup> (AWG20) incl. 10-pole Micro Fit 3.0 plug	S800-RSU-CP	2CCS800900R0541	1412869	0.35	1

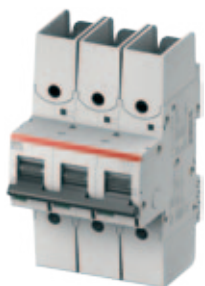
10-pole Micro Fit 3.0 plug	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
10-pole Micro Fit 3.0 plug	S800-RSU-P	2CCS800900R0551	1412845	0.00	1



2CC0413019F0002



Short-circuit current with interchangeable cage terminal [A]	Order details Type Code	Order code	GTIN EAN 7612271	Weight [kg]	Pack. unit
32	S803S-SCL32	2CCS800900R0291	1208912	0.74	1
63	S803S-SCL63	2CCS800900R0301	1208929	0.74	1
125	S803S-SCL125	2CCS800900R0281	1208905	0.74	1



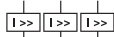
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Short-circuit current limiter with interchangeable ring terminal connection [A]	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
32	S803S-SCL32-R	2CCS800900R0332	1408916	0.74	1
63	S803S-SCL63-R	2CCS800900R0331	1208950	0.74	1
125	S803S-SCL125-R	2CCS800900R0311	1208936	0.74	1



2CC0412028F0001



Self-resetting short-circuit limiter IEC version [A]	Order details Type Code	Order code	GTIN EAN 7612271	Weight [kg]	Pack. unit
32	S801S-SCL32-SR	2CCS801901R0539	412012	0.25	1
63	S801S-SCL63-SR	2CCS801901R0599	412036	0.25	1
100	S801S-SCL100-SR	2CCS801901R0639	411992	0.25	1
32	S802S-SCL32-SR	2CCS802901R0539	412074	0.5	1
63	S802S-SCL63-SR	2CCS802901R0599	412098	0.5	1
100	S802S-SCL100-SR	2CCS802901R0639	412050	0.5	1
32	S803S-SCL32-SR	2CCS803901R0539	411930	0.75	1
63	S803S-SCL63-SR	2CCS803901R0599	411947	0.75	1
100	S803S-SCL100-SR	2CCS803901R0639	411954	0.75	1



2CC0415364F0001



Self-resetting short-circuit limiter World version [A]	Order details Type Code	Order code	GTIN EAN 7612271	Weight [kg]	Pack. unit
32	S803W-SCL32-SR	2CCS803917R0539	412319	0.75	1
63	S803W-SCL63-SR	2CCS803917R0599	412326	0.75	1
100	S803W-SCL100-SR	2CCS803917R0639	412302	0.75	1

# S800 Accessories

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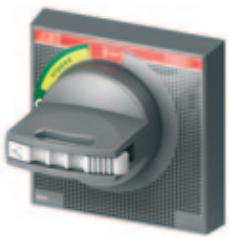
Shunt operation release	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Shunt operat. release 12 VAC/DC	S800-SOR12	2CCS800900R0201	1212070	0,15	1
Shunt operat. release 24 VAC/DC	S800-SOR24	2CCS800900R0191	1208318	0,15	1
Shunt operat. release 48...130 VAC/DC	S800-SOR130	2CCS800900R0221	1208349	0,15	1
Shunt operat. release 110...250 VAC/DC	S800-SOR250	2CCS800900R0211	1208332	0,15	1
Shunt operat. release 220...400 VAC/DC	S800-SOR400	2CCS800900R0231	1208356	0,15	1



Undervoltage release	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Undervoltage release 24...36 VAC/DC	S800-UVR36	2CCS800900R0241	1208363	0,15	1
Undervoltage release 48...60 VAC/DC	S800-UVR60	2CCS800900R0251	1208370	0,15	1
Undervoltage release 110...130 VAC/DC	S800-UVR130	2CCS800900R0261	1208387	0,15	1
Undervoltage release 220...250 VAC/DC	S800-UVR250	2CCS800900R0271	1208394	0,15	1



Rotary drive adapter for 2- to 4-pole high performance MCB	Order details Type Code	Order code	GTIN EAN 761227	Weight [kg]	Pack. unit
Rotary drive	S800-RD	2CCS800900R0041	1208172	0,08	1



Anthracite/Standard rotary handle for door assembly	Order details Type Code	Order code	GTIN EAN 80156446	Weight [kg]	Pack. unit
Anthracite rotary handle	S800-RHE-H	1SDA060150R0001	25771	0,21	1



Red/Emergency rotary handle for door assembly	Order details Type Code	Order code	GTIN EAN 80156446	Weight [kg]	Pack. unit
Red rotary handle	S800-RHE-EM	1SDA060151R0001	25764	0,21	1





2CCC413064F001

Axle extension Rotary drive-rotary handle 6 x 6 mm	Order details Type Code	Order code	GTIN EAN 80156446	Weight [kg]	Pack. unit
Axial extension 500 mm	S800-RHE-S	1SDA060179R0001	26242	0.2	1

IP54 kit for door mounting	Order details Type Code	Order code	GTIN EAN 80156446	Weight [kg]	Pack. unit
IP54 Kit	S800-RHE-IP54	1SDA060180R0001	26259	0.08	1



2CCC413088F0001

Intermediate piece 9 mm	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Intermediate piece 9 mm	S800-IP9	2CCS800900R0031	08202	0.01	1



2CCC413086F0001

Padlock lever lock with hasp	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Padlock lever lock with hasp 4 mm	S800-PLL	2CCS800900R0051	08189	0.12	10



2CCC413308F0001

UL locking device*	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
UL locking device	S800U-PLL	2CCS800017R0001	15057	0.02	1

\*High performance circuit breaker and lockout tag are not included in delivery

# S800 Accessories

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2CCCA13045F001

Interchangeable adapter kit	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Cage terminal	S800N-CT2125	2CCS800900R0471	12049	0.03	2
Cage terminal	S800N-CT4125	2CCS800900R0461	12032	0.06	4



2CCCA13046F004

Interchangeable adapter kit	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Ring terminal connection	S800-RT2125	2CCS800900R0161	08240	0.03	2
Ring terminal connection	S800-RT4125	2CCS800900R0131	08219	0.06	4



2CCCA13057F001

Busbar	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Busbar 250 A	S803-BB250	2CCS800900R0071	08288	1.5	1



2CCCA13058F001

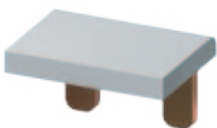
Feed block	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Feed block 120 mm <sup>2</sup>	S803-BBPC120	2CCS800900R0101	08301	0.46	1



2CCCA13059F001

Contact-protection cover	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Contact-protection cover	S800-BBIC	2CCS800900R0081	08967	0.02	12

End cap	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
End cap	S800-END	2CCS800900R0091	08295	0.04	10



2CCCA13254F001

Pole connector	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Pole connector 50 A	S802-LINK50	2CCS800900R0411	211295	0.03	10
Pole connector 125 A	S802-LINK125	2CCS800900R0562	419103	0.15	2



2CCCA13385F001

S800-ILS	Order details Type Code	Order code	GTIN EAN 76122712	Weight [kg]	Pack. unit
Identification labeling system 168x6x11.5 mm	S800-ILS	2CCS800900R0121	08271	0.01	1



2CCA81032F001

Description	Order details Type code	Order code	GTIN EAN 7612271	Weight [kg]	Pack. unit
Sensors 18 mm for S800 installation devices with cage terminals					
80 A	CMS-100S8	2CCA880124R0001	426552	0.014	1
40 A	CMS-101S8	2CCA880125R0001	426569	0.014	1
20 A	CMS-102S8	2CCA880126R0001	426576	0.014	1



2CCA81034F001

Sensors 25 mm for S800 installation devices with cage terminals					
160 A	CMS-200S8	2CCA880136R0001	426644	0.028	1
80 A	CMS-201S8	2CCA880137R0001	426651	0.028	1
40 A	CMS-202S8	2CCA880138R0001	426668	0.028	1



2CCA81070F0001

Control Unit (24VDC)					
Modbus RTU	CMS-600	2CCA880000R0001	418700	0.153	1

Accessories					
Flat cable 2 m	CMS-800	2CCA880148R0001	419233	0.017	1
Flat cable 3 m	CMS-801	2CCA880149R0001	424428	0.025	1
Connector set	CMS-820	2CCA880145R0001	419240	0.024	35

# S800 Accessories

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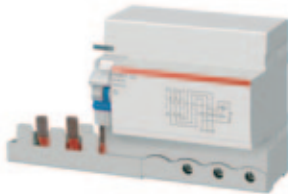
## Assignment of the FI protection devices

Type A	Type AC	Type AS	Type A-AP-R
Pulse current sensitive	Alternating current sensitive	Pulse current sensitive	Pulse current sensitive
FI protection device	FI protection device	FI protection device (selective)	FI protection device (short-time delay)



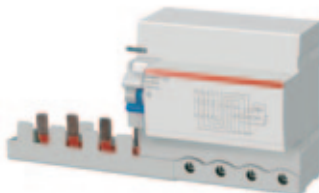
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Quantity	Rated current [A]	Order details	Type	I <sub>Δn</sub>	Order	GTIN EAN 801254	Weight [kg]	Pack. unit
2	63	DDA802AC-63/0.03	AC	0.03	2CSB802001R1630	2919704	0.3	1
2	63	DDA802AC-63/0.3	AC	0.3	2CSB802001R3630	2919902	0.3	1
2	63	DDA802A-63/0.03	A	0.03	2CSB802101R1630	2920007	0.3	1
2	63	DDA802A-63/0.3	A	0.3	2CSB802101R3630	2920205	0.3	1
2	63	DDA802A-63/0.5	A	0.5	2CSB802101R4630	2920403	0.3	1
2	63	DDA802AS-63/0.3	AS	0.3	2CSB802201R3630	2920601	0.3	1
2	63	DDA802AS-63/1	AS	1	2CSB802201R5630	2920809	0.3	1
2	63	DDA802A-63/0.03AP-R	A-AP-R	0.03	2CSB802401R1630	2921400	0.3	1
2	100	DDA802A-100/0.3	A	0.3	2CSB802101R3000	2545033	0.42	1
2	100	DDA802A-100/0.5	A	0.5	2CSB802101R4000	2542636	0.42	1
2	100	DDA802AS-100/0.3	AS	0.3	2CSB802201R3000	2542537	0.42	1
2	100	DDA802AS-100/1	AS	1	2CSB802201R5000	2547433	0.42	1
2	100	DDA802A-100/0.03AP-R	A-AP-R	0.03	2CSB802401R1000	2544630	0.42	1



2CC0413022F0001

3	63	DDA803AC-63/0.03	AC	0.03	2CSB803001R1630	2922001	0.4	1
3	63	DDA803AC-63/0.3	AC	0.3	2CSB803001R3630	2922209	0.4	1
3	63	DDA803A-63/0.03	A	0.03	2CSB803101R1630	2922308	0.4	1
3	63	DDA803A-63/0.3	A	0.3	2CSB803101R3630	2922506	0.4	1
3	63	DDA803A-63/0.5	A	0.5	2CSB803101R4630	2922704	0.4	1
3	63	DDA803AS-63/0.3	AS	0.3	2CSB803201R3630	2922902	0.4	1
3	63	DDA803AS-63/1	AS	1	2CSB803201R5630	2923206	0.4	1
3	63	DDA803A-63/0.03AP-R	A-AP-R	0.03	2CSB803401R1630	2923800	0.4	1
3	100	DDA803A-100/0.3	A	0.3	2CSB803101R3000	2544135	0.64	1
3	100	DDA803A-100/0.5	A	0.5	2CSB803101R4000	2541738	0.64	1
3	100	DDA803AS-100/0.3	AS	0.3	2CSB803201R3000	2544838	0.64	1
3	100	DDA803AS-100/0.5	AS	0.5	2CSB803201R4000	2542438	0.64	1
3	100	DDA803AS-100/1	AS	1	2CSB803201R5000	2547334	0.64	1
3	100	DDA803A-100/0.03AP-R	A-AP-R	0.03	2CSB803401R1000	2542230	0.64	1



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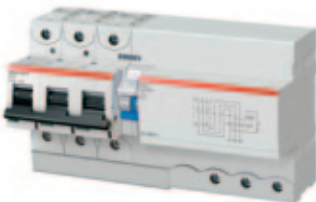
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4	63	DDA804AC-63/0.3	AC	0.3	2CSB804001R3630	2924609	0.46	1
4	63	DDA804A-63/0.03	A	0.03	2CSB804101R1630	2924807	0.46	1
4	63	DDA804A-63/0.3	A	0.3	2CSB804101R3630	2925002	0.46	1
4	63	DDA804A-63/0.5	A	0.5	2CSB804101R4630	2925200	0.46	1
4	63	DDA804AS-63/0.3	AS	0.3	2CSB804201R3630	2926207	0.46	1
4	63	DDA804AS-63/1	AS	1	2CSB804201R5630	2926504	0.46	1
4	63	DDA804A-63/0.03AP-R	A-AP-R	0.03	2CSB804401R1630	2927709	0.46	1
4	100	DDA804A-100/0.3	A	0.3	2CSB802101R3000	2545033	0.77	1
4	100	DDA804A-100/0.5	A	0.5	2CSB802101R4000	2542636	0.77	1
4	100	DDA804AS-100/0.3	AS	0.3	2CSB804201R3000	2544739	0.77	1
4	100	DDA804AS-100/0.5	AS	0.5	2CSB804201R4000	2542339	0.77	1
4	100	DDA804AS-100/1	AS	1	2CSB804201R5000	2547235	0.77	1
4	100	DDA804A-100/0.03AP-R	A-AP-R	0.03	2CSB804401R1000	2547136	0.77	1





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Quantity	Rated current	Order details	Type	I <sub>Δn</sub>	Product number	GTIN	Weight	Pack.
Pole	[A]	Type Code			2CC	76122712	[kg]	unit
2	125	DS802S-B125/0.03AP-R	A-AP-R	0.03	B862004R0845	11301	0.79	1
2	125	DS802S-C125/0.03AP-R	A-AP-R	0.03	B862004R0844	11318	0.79	1
2	125	DS802S-D125/0.03AP-R	A-AP-R	0.03	B862004R0841	11325	0.79	1
2	125	DS802S-K125/0.03AP-R	A-AP-R	0.03	B862004R0647	11332	0.79	1
2	125	DS802N-B125/0.03AP-R	A-AP-R	0.03	B892004R0845	11424	0.79	1
2	125	DS802N-C125/0.03AP-R	A-AP-R	0.03	B892004R0844	11431	0.79	1
2	125	DS802N-D125/0.03AP-R	A-AP-R	0.03	B892004R0841	11448	0.79	1
2	125	DS802S-B125/1AS	AS	1	C862006R0845	11516	0.79	1
2	125	DS802S-C125/1AS	AS	1	C862006R0844	11523	0.79	1
2	125	DS802S-D125/1AS	AS	1	C862006R0841	11530	0.79	1
2	125	DS802S-K125/1AS	AS	1	C862006R0647	11547	0.79	1
2	125	DS802N-B125/1AS	AS	1	C892006R0845	11639	0.79	1
2	125	DS802N-C125/1AS	AS	1	C892006R0844	11646	0.79	1
2	125	DS802N-D125/1AS	AS	1	C892006R0841	11653	0.79	1
2	125	DS802S-B125/0.3A	A	0.3	A862005R0845	11721	0.79	1
2	125	DS802S-C125/0.3A	A	0.3	A862005R0844	11738	0.79	1
2	125	DS802S-D125/0.3A	A	0.3	A862005R0841	11745	0.79	1
2	125	DS802S-K125/0.3A	A	0.3	A862005R0647	11752	0.79	1
2	125	DS802N-B125/0.3A	A	0.3	A892005R0845	11844	0.79	1
2	125	DS802N-C125/0.3A	A	0.3	A892005R0844	11851	0.79	1
2	125	DS802N-D125/0.3A	A	0.3	A892005R0841	11868	0.79	1

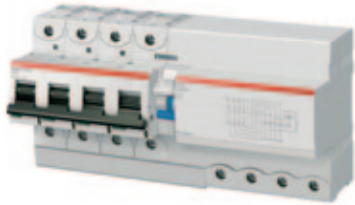


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3	125	DS803S-B125/0.03AP-R	A-AP-R	0.03	B863004R0845	11349	1.14	1
3	125	DS803S-C125/0.03AP-R	A-AP-R	0.03	B863004R0844	11356	1.14	1
3	125	DS803S-D125/0.03AP-R	A-AP-R	0.03	B863004R0841	11363	1.14	1
3	125	DS803S-K125/0.03AP-R	A-AP-R	0.03	B863004R0647	11370	1.14	1
3	125	DS803N-B125/0.03AP-R	A-AP-R	0.03	B893004R0845	11455	1.14	1
3	125	DS803N-C125/0.03AP-R	A-AP-R	0.03	B893004R0844	11462	1.14	1
3	125	DS803N-D125/0.03AP-R	A-AP-R	0.03	B893004R0841	11479	1.14	1
3	125	DS803S-B125/0.3A	A	0.3	A863005R0845	11769	1.14	1
3	125	DS803S-C125/0.3A	A	0.3	A863005R0844	11776	1.14	1
3	125	DS803S-D125/0.3A	A	0.3	A863005R0841	11783	1.14	1
3	125	DS803S-K125/0.3A	A	0.3	A863005R0647	11790	1.14	1
3	125	DS803N-B125/0.3A	A	0.3	A893005R0845	11875	1.14	1
3	125	DS803N-C125/0.3A	A	0.3	A893005R0844	11882	1.14	1
3	125	DS803N-D125/0.3A	A	0.3	A893005R0841	11899	1.14	1

# S800 Accessories

1



20CC413259F001

Quantity	Rated current	Order details	Type	$I_{\Delta n}$	Product number	GTIN	Weight	Pack.
Pole	[A]	Type Code			2CC	EAN 76122712	[kg]	unit
4	125	DS804S-B125/0.03AP-R	A-AP-R	0.03	B864004R0845	11387	1.44	1
4	125	DS804S-C125/0.03AP-R	A-AP-R	0.03	B864004R0844	11394	1.44	1
4	125	DS804S-D125/0.03AP-R	A-AP-R	0.03	B864004R0841	11400	1.44	1
4	125	DS804S-K125/0.03AP-R	A-AP-R	0.03	B864004R0647	11417	1.44	1
4	125	DS804N-B125/0.03AP-R	A-AP-R	0.03	B894004R0845	11486	1.44	1
4	125	DS804N-C125/0.03AP-R	A-AP-R	0.03	B894004R0844	11493	1.44	1
4	125	DS804N-D125/0.03AP-R	A-AP-R	0.03	B894004R0841	11509	1.44	1
4	125	DS804S-B125/0.3AS	AS	0.3	C864005R0845	11554	1.44	1
4	125	DS804S-C125/0.3AS	AS	0.3	C864005R0844	11561	1.44	1
4	125	DS804S-D125/0.3AS	AS	0.3	C864005R0841	11578	1.44	1
4	125	DS804S-K125/0.3AS	AS	0.3	C864005R0647	11585	1.44	1
4	125	DS804S-B125/1AS	AS	1	C864006R0845	11592	1.44	1
4	125	DS804S-C125/1AS	AS	1	C864006R0844	11608	1.44	1
4	125	DS804S-D125/1AS	AS	1	C864006R0841	11615	1.44	1
4	125	DS804S-K125/1AS	AS	1	C864006R0647	11622	1.44	1
4	125	DS804N-B125/0.3AS	AS	0.3	C894005R0845	11660	1.44	1
4	125	DS804N-C125/0.3AS	AS	0.3	C894005R0844	11677	1.44	1
4	125	DS804N-D125/0.3AS	AS	0.3	C894005R0841	11684	1.44	1
4	125	DS804N-B125/1AS	AS	1	C894006R0845	11691	1.44	1
4	125	DS804N-C125/1AS	AS	1	C894006R0844	11707	1.44	1
4	125	DS804N-D125/1AS	AS	1	C894006R0841	11714	1.44	1
4	125	DS804S-B125/0.3A	A	0.3	A864005R0845	11806	1.44	1
4	125	DS804S-C125/0.3A	A	0.3	A864005R0844	11813	1.44	1
4	125	DS804S-D125/0.3A	A	0.3	A864005R0841	11820	1.44	1
4	125	DS804S-K125/0.3A	A	0.3	A864005R0647	11837	1.44	1
4	125	DS804N-B125/0.3A	A	0.3	A894005R0845	11905	1.44	1
4	125	DS804N-C125/0.3A	A	0.3	A894005R0844	11912	1.44	1
4	125	DS804N-D125/0.3A	A	0.3	A894005R0841	11929	1.44	1

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## Properties of S800 accessories

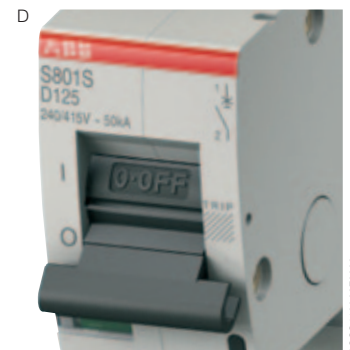
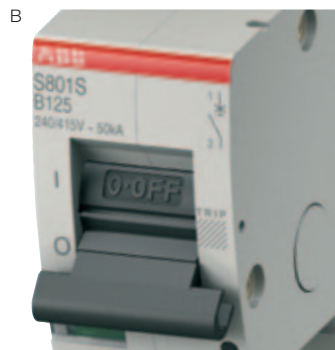
S800-AUX	2/18
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S800-RSU	2/19
S800-RSU-CP	2/20
S800-RSU-P	2/20
S800-SOR	2/20
S800-UVR	2/20
S803S-SCL	2/20
S800-SCL-SR	2/21
S800-RD	2/22
S800-IP9	2/22
S800-PLL	2/22
S800U-PLL	2/23
S800-CT, -RT	2/23
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# High Performance MCB S800

## Characteristics of the S and N series

### Characteristics

2



#### Tripping characteristic B

Thermal tripping 1.13 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping  
 3 ... 5 x I<sub>n</sub> AC  
 Reference temperature 30 °C

As circuit breaker for electric circuits feeding consumers that do not generate any current peaks, or only mild ones (boilers, electric heaters, cooking stoves).

#### Tripping characteristic C

Thermal tripping 1.13 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping  
 5 ... 10 x I<sub>n</sub> AC  
 Reference temperature 30 °C

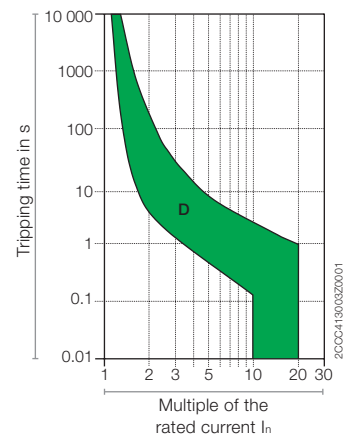
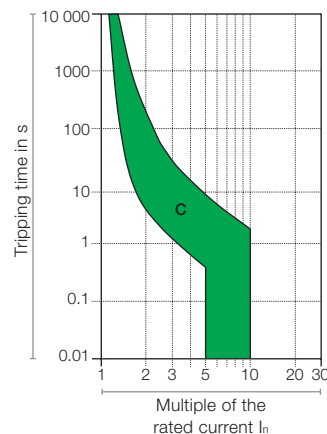
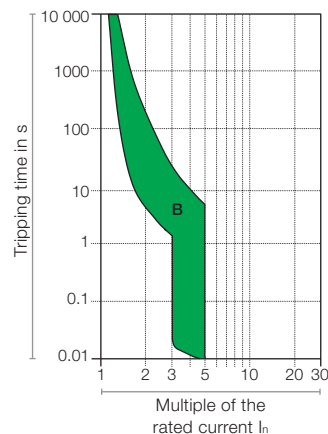
As "standard" MCB for electric circuits feeding consumers that generate current peaks normal within inductive devices (fluorescent tubes, electric discharge lamps) as well as for circuits within sockets in commercially used systems/plants.

#### Tripping characteristic D

Thermal tripping 1.13 ... 1.3 · I<sub>n</sub>  
 Electromagnetic tripping  
 10 ... 20 x I<sub>n</sub> AC  
 Reference temperature 30 °C

As main circuit breaker for electric circuits feeding consumers that generate extremely high current peaks (transformers, capacitor banks).  
 As main circuit breaker connected upstream of other circuit breakers (reference over-current circuit breaker).

### Tripping characteristics



### Tripping behaviour compliant to EN 60898-1

Characteristics	Currents	Thermal tripping		Electromagnetic tripping	
		Small test current	Large test current	Small test current	Large test current
<b>B</b>	10 ... 80 A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	3 x I <sub>n</sub>	5 x I <sub>n</sub>
<b>C</b>	10 ... 80 A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	5 x I <sub>n</sub>	10 x I <sub>n</sub>
<b>D</b>	10 ... 80 A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	10 x I <sub>n</sub>	20 x I <sub>n</sub>

\* applies exclusively to the S series.





### Tripping characteristic K

Thermal tripping 1.05 ... 1.2 x I<sub>n</sub>  
 Electromagnetic tripping 13 x I<sub>n</sub> AC  
 Reference temperature 40°C

### Tripping characteristic UCB

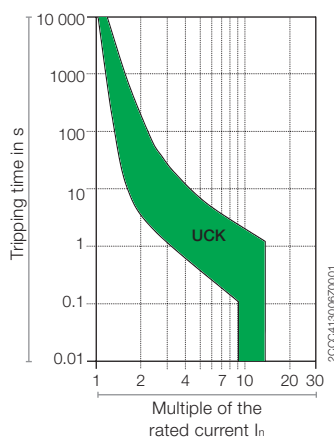
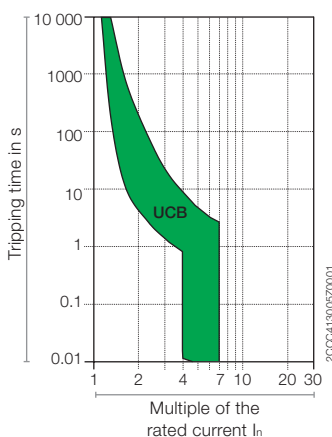
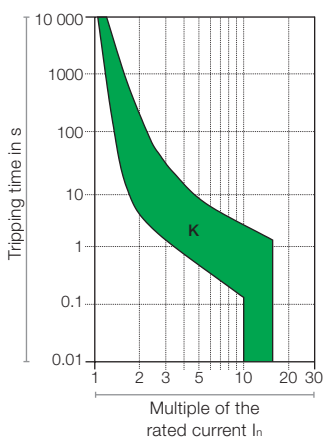
Thermal tripping 1.05 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping 6 x I<sub>n</sub> DC  
 Reference temperature 30°C

### Tripping characteristic UCK

Thermal tripping 1.05 ... 1.2 x I<sub>n</sub>  
 Electromagnetic tripping 11 x I<sub>n</sub> DC  
 Reference temperature 40°C

Serves as High Performance MCB in case of high magnetic inrush currents that occur, e.g. in engines or transformers. This characteristic provides the best protection for a wide range of electrical systems by allowing high inrush currents when starting up the system.

Device protection independent of polarity within DC plants up to 750 V = at a time constant of ≤15 ms.



### Tripping behaviour compliant to IEC 60947-2

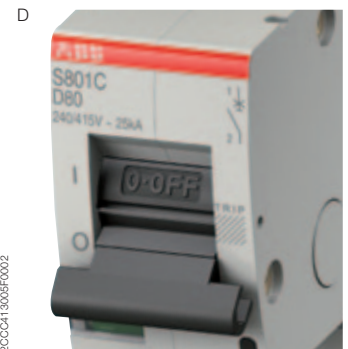
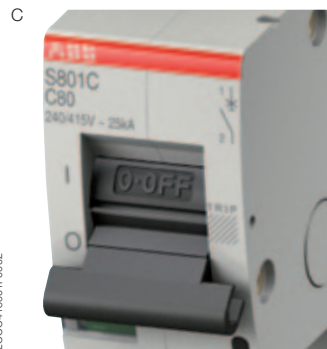
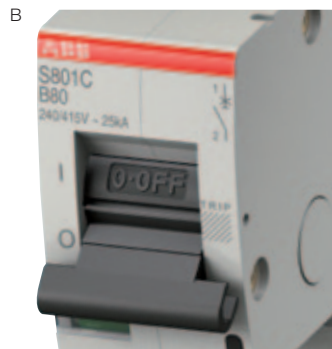
Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
<b>B</b>	6 ... 125 A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	4 x I <sub>n</sub> ± 20%
<b>C</b>	6 ... 125 A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	8 x I <sub>n</sub> ± 20%
<b>D</b>	6 ... 125 A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	13 x I <sub>n</sub> ± 20%
<b>* K</b>	6 ... 125 A	1.05 x I <sub>n</sub>	1.20 x I <sub>n</sub>	13 x I <sub>n</sub> ± 20%
<b>* KM</b>	20 ... 80 A			13 x I <sub>n</sub> ± 20%
<b>* UCB</b>	10 ... 125 A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	6 x I <sub>n</sub> ± 20% (DC)
<b>* UCK</b>	10 ... 125 A	1.05 x I <sub>n</sub>	1.20 x I <sub>n</sub>	11 x I <sub>n</sub> ± 20% (DC)

# High Performance MCB S800

## Characteristics of the B and C series

### Characteristics

2



#### Tripping characteristic B

Thermal tripping 1.13 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping 3 ... 5 x I<sub>n</sub> AC  
 Reference temperature 30 °C

As circuit breaker for electric circuits feeding consumers that do not generate any current peaks, or only mild ones (boilers, electric heaters, cooking stoves).

#### Tripping characteristic C

Thermal tripping 1.13 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping 5 ... 10 x I<sub>n</sub> AC  
 Reference temperature 30 °C

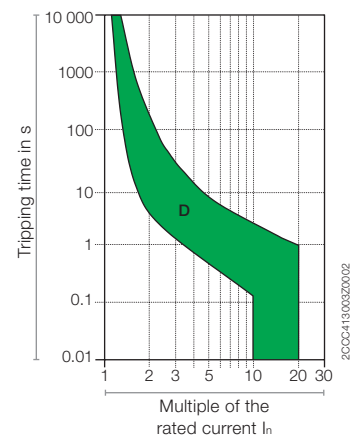
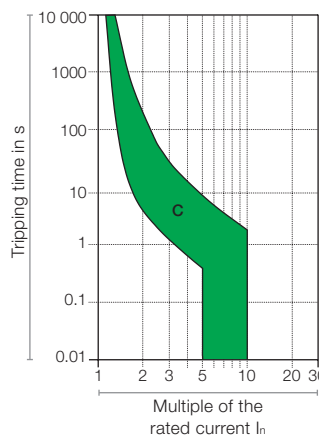
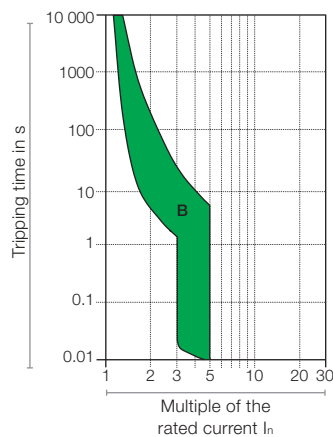
As "standard" MCB for electric circuits feeding consumers that generate current peaks normal within inductive devices (fluorescent tubes, electric discharge lamps) as well as for circuits within sockets in commercially used systems/plants.

#### Tripping characteristic D

Thermal tripping 1.13 ... 1.3 x I<sub>n</sub>  
 Electromagnetic tripping 10 ... 20 x I<sub>n</sub> AC  
 Reference temperature 30 °C

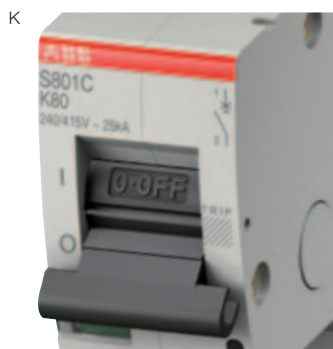
As main circuit breaker for electric circuits feeding consumers that generate extremely high current peaks (transformers, capacitor banks).  
 As main circuit breaker connected upstream of other circuit breakers (reference over-current circuit breaker).

### Tripping characteristics



### Tripping behaviour compliant to 60898-1 (apply for S800C only)

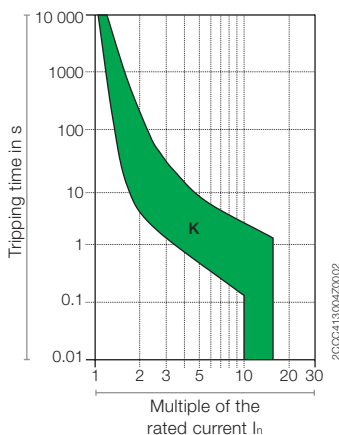
Characteristics	Currents	Thermal tripping		Electromagnetic tripping	
		Small test current	Large test current	Small test current	Large test current
<b>B</b>	10 ... 125A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	3 x I <sub>n</sub>	5 x I <sub>n</sub>
<b>C</b>	10 ... 125A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	5 x I <sub>n</sub>	10 x I <sub>n</sub>
<b>D</b>	10 ... 100A	1.13 x I <sub>n</sub>	1.45 x I <sub>n</sub>	10 x I <sub>n</sub>	20 x I <sub>n</sub>



**Tripping characteristic K**

Thermal tripping 1.05 ... 1.2 x I<sub>n</sub>  
 Electromagnetic tripping  
 13 x I<sub>n</sub> AC  
 Reference temperature 40°C

Serves as High Performance MCB in case of high magnetic inrush currents that occur, e.g. in engines or transformers. This characteristic provides the best protection for a wide range of electrical systems by allowing high inrush currents when starting up the system.



**Tripping behaviour compliant to IEC 60947-2**

Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
<b>B</b>	10/32* ... 125A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	4 x I <sub>n</sub> ± 20%
<b>C</b>	10/32* ... 125A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	8 x I <sub>n</sub> ± 20%
<b>D</b>	10/32* ... 125A	1.05 x I <sub>n</sub>	1.30 x I <sub>n</sub>	13 x I <sub>n</sub> ± 20%
<b>K</b>	10/32* ... 125A	1.05 x I <sub>n</sub>	1.20 x I <sub>n</sub>	13 x I <sub>n</sub> ± 20%

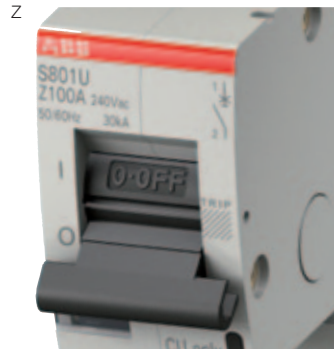
\* applies for S800B

# High Performance MCB S800

## Characteristics of the U series

### Characteristics

2

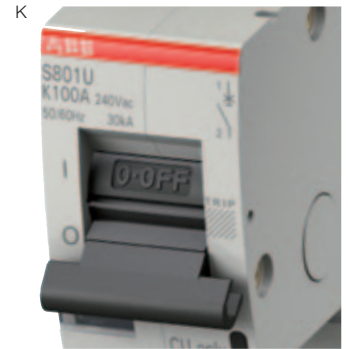


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#### Tripping characteristic Z

Thermal tripping 1.00 ... 1.35 x I<sub>n</sub>  
 Electromagnetic tripping 4 x I<sub>n</sub> AC  
 Reference temperature 25 °C

As miniature circuit breaker for electric circuits feeding consumers that do not generate any current peaks, or only mild ones.



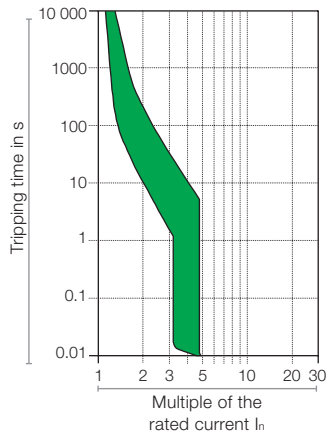
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#### Tripping characteristic K

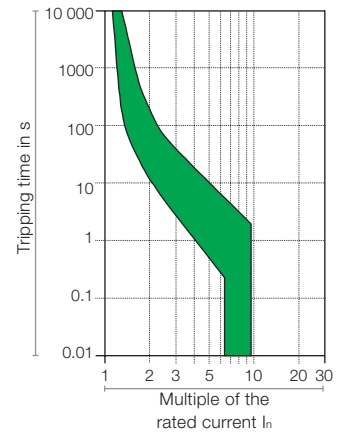
Thermal tripping 1.00 ... 1.35 x I<sub>n</sub>  
 Electromagnetic tripping 8 x I<sub>n</sub> AC  
 Reference temperature 25 °C

Serves as High Performance MCB in case of high magnetic inrush currents that occur, e.g. in engines or transformers. This characteristic provides the best protection for a wide range of electrical systems by allowing high inrush currents when starting up the system.

### Tripping characteristics



ZCCC413256Z0001



ZCCC413256Z0001

### Tripping behaviour compliant to UL 489

Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
Z	10 ... 100A	1.00 x I <sub>n</sub>	1.35 x I <sub>n</sub>	4 x I <sub>n</sub> ± 20%
K	10 ... 100A	1.00 x I <sub>n</sub>	1.35 x I <sub>n</sub>	8 x I <sub>n</sub> ± 20%



# High Performance MCB S800

## Characteristics of the S804U-UCZ, S804U-PVS5

### Characteristics



#### Tripping characteristic

Thermal tripping 1.00 ... 1.35 x  $I_n$   
 Electromagnetic tripping 11 x  $I_n$   
 Reference temperature 25 °C

As circuit breaker for voltages up to 600 VDC, especially in datacenters.

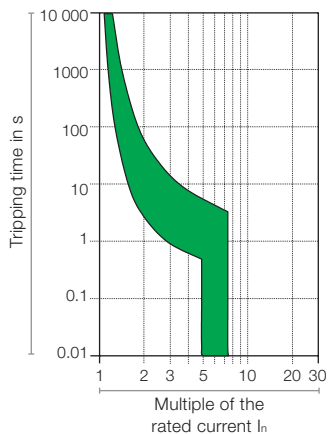
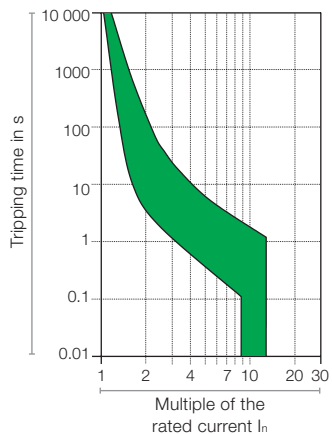


#### Tripping characteristic

Thermal tripping 1.13 ... 1.3 x  $I_n$   
 Electromagnetic tripping 6 x  $I_n$   
 Reference temperature 50 °C

As Ground-Fault Detector Interrupter (GFDI) in photovoltaic systems.

### Tripping characteristics



### Tripping behaviour compliant to UL 489B

Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
PVS	5A	1.13 x $I_n$	1.30 x $I_n$	6 x $I_n$ (DC)

### Tripping behaviour compliant to UL 489

Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
Z	10 ... 80A	1.00 x $I_n$	1.35 x $I_n$	11 x $I_n$ (DC) ± 20%

# Photovoltaic High Performance MCB Characteristic of the S800PV-S

## Characteristics

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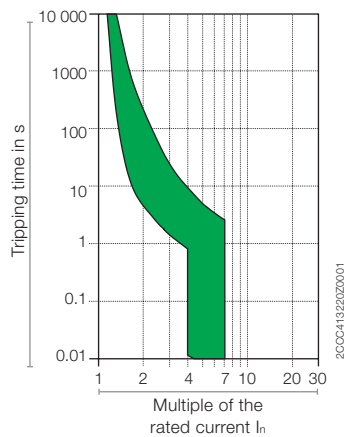
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### Tripping characteristic

Thermal tripping  $1.05 \dots 1.3 \times I_n$   
 Electromagnetic tripping  $6 \times I_n$   
 Reference temperature  $30^\circ\text{C}$

DC protection independent of polarity in photovoltaic plants up to 1200VDC at a time constant  $\leq 5 \text{ ms}$ .

## Tripping characteristics



### Tripping behaviour compliant to IEC 60947-2

Characteristics	Currents	Thermal tripping		Electromagnetic tripping
		Small test current	Large test current	
PV-S	10 ... 125A	$1.05 \times I_n$	$1.30 \times I_n$	$6 \times I_n$ (DC)

# Properties

## Special features of S800



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### The S800S, -N, -C and -B high performance MCBs: safe innovation

The S800 high performance MCB limits energy and current in case of a short-circuit power cut off.

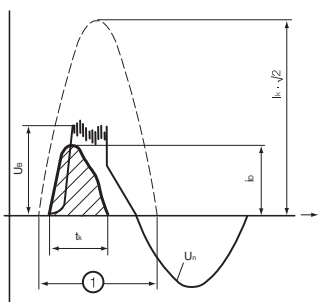
The specially designed double arcing chamber system, i. e. per pole are two arcing chambers, ensures excellent operating characteristics. The new S800B has only one arcing chamber. Additional exceptional features of the S800 series are:

- Convincing:** Selectivity to upstream overcurrent protection devices due to a total switch-off time of only  $\leq 2.5$  ms.
- Safe:** Excellent backup protection by limiting the energy to a value  $\leq 100\,000\text{ A}^2\text{s}$  (125A/50kA). In case of short-circuit, there is a low load to the circuit and the location of the damage due to the high limitation of the let-through energy.
- Loads:** Up to 125A rated current
- Checked:**
  - S series** up to 50kA rated ultimate short-circuit breaking capacity  $I_{cu}$
  - N series** up to 36kA rated ultimate short-circuit breaking capacity  $I_{cu}$
  - C series** up to 25kA rated ultimate short-circuit breaking capacity  $I_{cu}$
  - B series** up to 16kA rated ultimate short-circuit breaking capacity  $I_{cu}$
- Selectable:** Characteristics:
  - S series: B, C, D, K, KM, UCB, UCK
  - N series: B, C, D
  - C series: B, C, D, K
  - B series: B, C, D, K
- Compact:** Slight 27 mm width per pole
- Flexible:** Accessories installed by the customer.



### S800U: Highest safety now also ensured for UL applications

- Convincing:** Covering of different voltage ranges (240VAC, 600VDC, 1000VDC)
- Safe:** Excellent backup protection due to limitation of energy.
- Loads:** Up to 100 A rated current
- Checked:**
  - K-, Z series** up to 50kA breaking capacity
  - UCZ series** up to 10kA breaking capacity
  - PVS series** up to 3kA breaking capacity
- Selectable:** Characteristics:
  - K, Z, UCZ, PVS
- Compact:** Smallest sizes.
- Flexible:** Accessories installed by the customer.
- Standards:** UL489, UL489B, IEC 60947-2



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① 1 sinus half-wave  
50 Hz  $\Delta T/2 = 10\text{ms}$

### Short description

Two triggers detect overcurrents, effect the switching station and provide short-circuit protection.

1. The thermal trip for overload protection with time delay.
2. The electromagnetic fast-acting trip with concrete anchor for short-circuit protection.

- $I_k \times \sqrt{2}$  peak value of the prospective short-circuit current
- $i_d$  max. let-through current of the S800 high performance MCB
- $U_n$  supply voltage
- $U_a$  build up and collapse of the arc voltage
- $t_k$  Turn-off time of S800 high performance MCB

# Properties

## Special features of S800

2



### Play it safe: display the operational state

The mechanical drive of the S800 high performance MCB is equipped with a trip-free release. It therefore switches independent of the actuating force or speed on the actuating lever. The trip position display thereby always reliably displays the exact position of the moving contact. The trip position provides additional trip detection allowing you to easily find the reason for the cut-off. Because the switch lever moves to the middle position in case of thermal or magnetic tripping, the user sees at a glance that this is an error state and can then initiate suitable measures.

\*Middle position of switch lever, see picture

### Reliable: the disconnecter properties

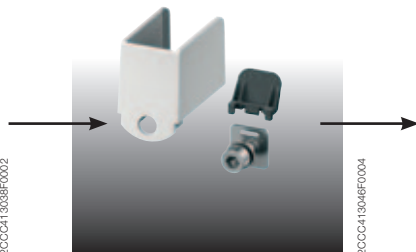
In OFF position (0 position), the S800 high performance MCB guarantees safe electrical isolation of the circuit compliant to IEC 60947-2.

### Flexible: the installation

The S800 high performance MCB can be directly mounted onto any position on the DIN mounting rail without any impairment to its characteristics. Because the pole dimensions are identical for all rated currents, installation in switching systems is simplified.

### Cage and ring terminals

When ordering you can choose between cage terminals or ring terminal connectors. No matter which type you select, both connection options guarantee a high degree of reliability.



### Doesn't let go: the replaceable terminal adapter\*

The S800 standard equipment with interchangeable terminal adapter for wires, cables and rigid conductors guarantees a high level of flexibility and comfort. Fast and safe connection of the conductors is ensured by the "onboard terminal shutter" integrated into the body of the terminal, thereby preventing incorrect underclamping of the connections.

\* Available for the S, N, C, U and PV series.





**Extra safe: Fire protection acc. to NF F 16-101 and NF F 16-102 (prEN45545-2)**

The S800 high performance MCB provides standard compliance to the requirements of Standard prEN45545-2 (Railway applications – Fire Protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components). This standard is based on the French standard NF F 16-101/ NF F 16-102 and makes new requirements of the fire behaviour of the materials used. The main focus of attention with relation to fire protection is on the following:

- Flame spread
- Rate of heat release
- Smoke development
- Toxicity

The S800 high performance automatic meets the following classification compliant to NF F 16-101 and NF F 16-102:

- I3F2
  - I3 no permanent flame at 850 °C
  - F2 index of fume density and toxicity ≤ 40



**Elevation**

Up to 2000 meters above sea level, the rated characteristics of the S800 high performance MCB remain unchanged. With increasing height, the properties of the atmosphere change regarding composition, dielectricity, the cooling capacity and the pressure. Thus for altitudes over 2000m below values are valid.

Elevation	[m]	2000	3000	4000	5000
Rated impulse withstand voltage $U_{imp}$	[kV]	8	6	6	6
Rated operational voltage $U_e$	[V]	690	600	540	470
Max. rated current $I_n$	[A]	$1 \times I_n$	$0.96 \times I_n$	$0.93 \times I_n$	$0.9 \times I_n$



**CMS – Current Measurement System**

The CMS is a multichannel current measurement system for branch monitoring of alternating (AC) and direct (DC) currents up to 160A. Various sensor types allow the mounting in every installation environment.

Companies are dependent on the trouble-free operation of their electrical systems. Monitoring every branch circuit of an installation with the CMS enables to detect deviations quickly before serious damage is caused. Furthermore branch monitoring gives the maximum transparency on where and how the electricity is used. It allows an effective energy management in order to save costs and to assign them fairly.

Up to 64 sensors can be connected to each Control Unit. The sensors measure root mean square values (AC/DC currents) (actual, min/max, hold values) and transmit their measurement data via the flat cable to the Control Unit. The measured values are displayed locally on the Control Unit's touch display and can be queried remotely by an RS485 Modbus connection.

# Properties

## DC Performance



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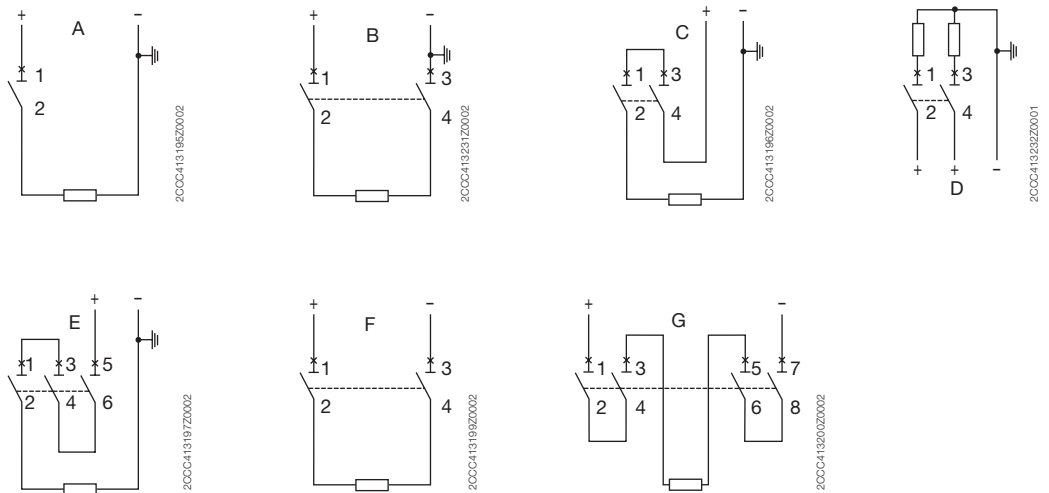
### S800S-UC: The first choice as DC high performance MCB

The S800S-UC DC high performance MCB is in a wide range of DC applications at home. Due to their high rated operational voltage of up to 750VDC the max. rated current of 125 A and the high breaking capacity of up to 50kA, make these devices suitable for applications, e.g.:

- DC track
- Galavanic applications
- Photovoltaics

### S800S, N, and C: Up to 125VDC on each pole

The AC range is also an interesting choice for DC applications up to 125VDC per pole.



### S800S-UC

Graphic	Short-circuit between output terminals	Contact to ground between output terminals and - earth
A	250 VDC	250 VDC
B	500 VDC	250 VDC
C	500 VDC	500 VDC
D	250 VDC	250 VDC
E	750 VDC	750 VDC
F	500 VDC	250 VDC (double failure)
G	750 VDC	500 VDC (double failure)

### S800S, S800N, S800C

Graphic	Short-circuit between output terminals	Contact to ground between output terminals and -
A	125 VDC	125 VDC
B	250 VDC	125 VDC
C	250 VDC	250 VDC
D	125 VDC	125 VDC
E	375 VDC	375 VDC
F	250 VDC	125 VDC (double failure)
G	500 VDC	125 VDC (double failure)

# Properties

## Special features of S800PV-S, S800PV-M



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### String protection with S800PV-S

A large proportion of the costs for photovoltaic systems is tied up in the equipment for the DC generation. The S800PV-S protects these investments in the event of a fault.

- Convincing:** Suitable for up to 1200 VDC
- Loadable:** String protection up to 125 A  
Reliable protection at high ambient temperatures
- Tested:** Rated ultimate short-circuit breaking capacity  $I_{cu}$  of 5 kA in accordance with IEC 60947-2
- Fast:** Reclosable for minimum standstill times
- Safe:** Disconnecter properties, switching under load
- Flexible:** Extensive range of accessories for remote shutdown and fault signalling



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### System isolation with S800PV-M/S802PV-M-H

The use of a DC isolator can be implemented reliably and in the minimum of space. Either you can choose the pole-independent S800PV-M or the non pole-independent 2-pole S800PV-M-H. The S800PV-M is available as 2-,3- and 4-pole version up to 1200 VDC. The S802PV-M-H is available as 2-pole version up to 1000 VDC.

- Convincing:** Suitable for up to 1200 VDC
- Loadable:** System isolation up to 125 A  
No change in operating behaviour up to 60°C ambient temperature  
Reliable switching of ohmic loads including moderate overloads
- Compact:** Minimum dimensions with maximum efficiency
- Tested:** Short-time withstand current  $I_{cw}$  of 1.5 kA in accordance with IEC 60947-3
- Safe:** Disconnecter properties, switching under load



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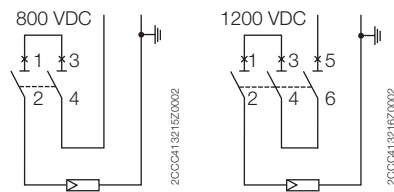
### Maximum device voltages

S800PV-S	2-pole	3-pole	4-pole
$I_n$ 10...80 A	800 VDC	1200 VDC	1200 VDC
$I_n$ 100, 125 A	600 VDC	1000 VDC	1200 VDC
<b>S800PV-M</b>			
$I_n$ 32, 63, 125 A	800 VDC	1200 VDC	1200 VDC
<b>S802PV-M-H</b>			
$I_n$ 32, 63, 100 A	1000 VDC		

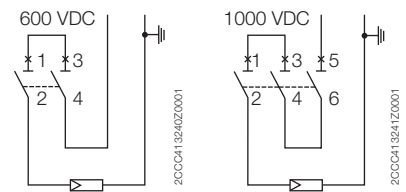
ABB recommends to fulfill national and/or international standards as e. g. IEC 61439-1 Low-voltage switchgear and controlgear assemblies

### Exemplary circuit diagrams

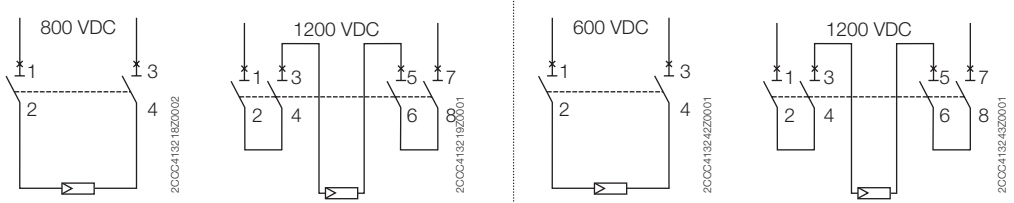
#### Earthed network ≤ 80 A



#### 100, 125 A



#### Non-earthed network



# Properties

## Special features of S800-RSU

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### S800 with S800-RSU

Known for its outstanding short circuit capacities of up to 50 kA and voltages of up to 690 VAC and 1200 VDC, S800 has become a convenient solution for the DIN Rail.

S800-RSU makes the use of S800 even more convenient: driven by a brushless high precision DC motor, S800-RSU ensures fast remote-controlled operation. Wiring and operation is easy: S800-RSU can be operated with standard MDRC pushbuttons and indicator lights or via programmable logic controllers (PLCs). Due to its low power consumption, compact power supply units can be chosen.

### Applications and Benefits:

#### Photovoltaics: Remote-controlled string management and convenient GFDI solutions

For a new generation of combiner boxes: used as a substitute for string or array fuses, S800PV or S804U-PVS5 in combination with S800-RSU ensures maximum PV yield due to minimum downtimes in case of failure or maintenance. For selective string management, additional switch disconnectors are no longer needed. S800-RSU adds to S800PV or S804U-PVS5 outstanding benefits for the PV-industry, allowing automated ground fault detection and interruption applications following UL1741.

#### Critical Power: Uninterrupted Power Supply Units

Fast, reliable backup protection for UPS systems: S800-RSU and S500-RSU provide outstanding quality and performance by switching a backup system quickly and reliably at extremely low stand-by current.

#### Telecommunications: Remote transmitter substations

The Remote Switching Units RSU minimize time-consuming visits to remote substations. Downtimes can be kept low due to convenient remote resetting of a tripped High Performance MCB.

#### Wind Power: Turbine towers

Inaccessible areas like wind turbine towers require immediate action in the case of overload or short circuits. The automatic switching capability of the High Performance MCB leads to reduction of cost-intensive fuse replacement or manual resetting of circuit breakers.

### Product Facts:

- Driven by Swiss-made brushless high precision DC motors
- Field mountable on any multi-pole S800 High Performance MCB
- Almost all accessories can be mounted
- Short switching times and low power consumption
- Mechanically lockable
- Compatible to ABB pro M compact 9 mm pushbuttons and indicator lights
- Compatible to ABB Programmable Logic Controllers
- User safety due to hand-switching recognition
- Low stand-by current
- Connecting has to be done by a 10-pole Micro Fit 3.0 plug (not included in delivery)
- Two versions
  - S800-RSU-H IEC-Version according to IEC 60947-2
  - S800W-RSU World version according to IEC 60947-2 and UL489



Winner 2010 in the category Photovoltaics

# Properties

## Special features of S800-SCL-SR



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### Group protection

In comparison to other short-circuit limiter you need only one S800-SCL-SR for several motor starters or high performance miniature circuit breakers.

Therefore the main application of the new S800-SCL-SR is group protection.

Several downstream motor protection combinations or several high performance miniature circuit breakers can be protected with only one S800-SCL-SR.

### Single-line protection

For single-line protection we recommend to use the standard short-circuit limiter S803S-SCL. It has a toggle and will trip in case of a failure.



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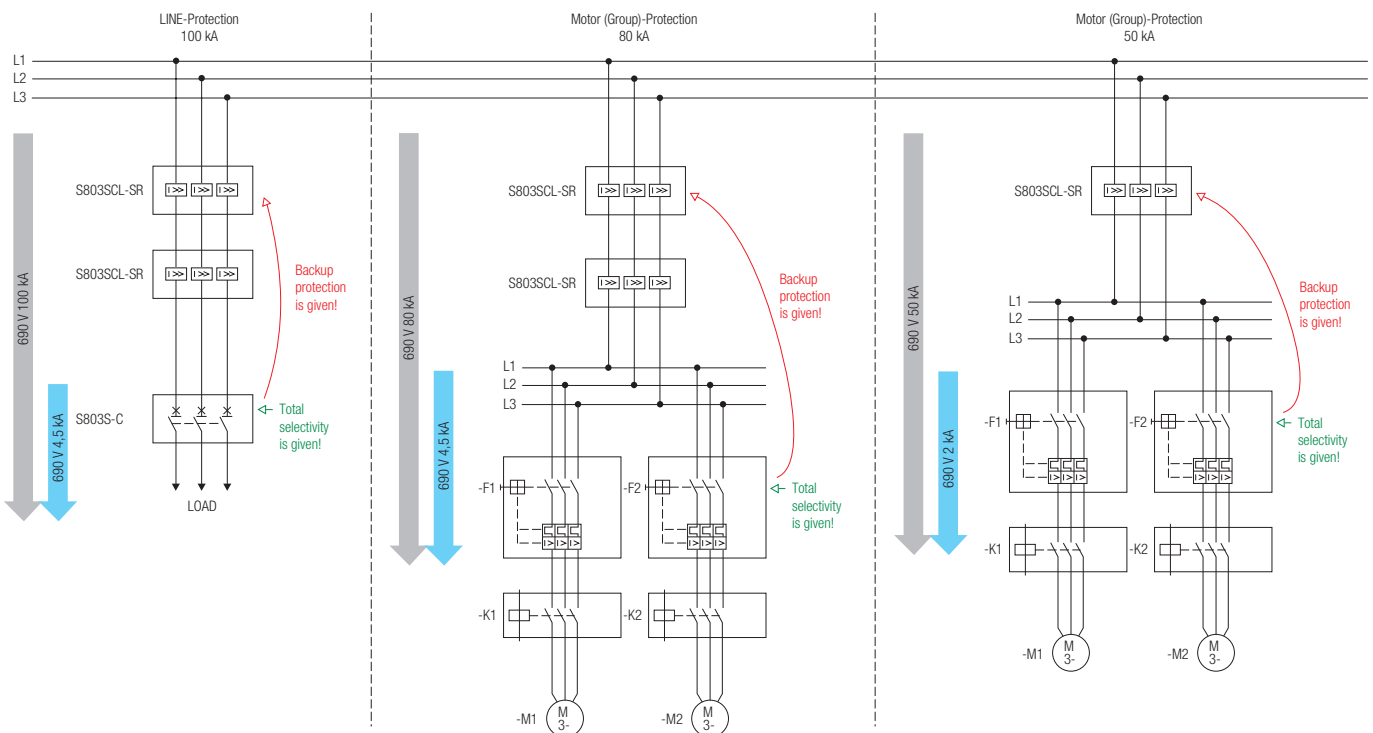
### Current continuity

In case of a failure by using the S800-SCL-SR as group protection only the defective device will trip; all other devices will keep doing their work.

Therefore you will have a very low breakdown, because only one motor will stop and not all of them.

**Maximum system availability is given.**

### Schematic examples for rated currents up to 100 A



- Short-circuit breaking capacity only downstream device
- Short-circuit breaking capacity coordinated group with S800-SCL-SR



# Properties

## International device releases

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### Unique: Conformity to standards and quality assurance

Both the S800 high performance MCB as well as its accessories comply to international standards EN/IEC 60898-1, IEC 60947-2 and UL 489. Conformity to the above-mentioned product standards and guidelines are certified by the electrosuisse, a member of the IECEE and the Underwrites Laboratories Inc. The quality assurance system of ABB Switzerland Ltd. Low Voltage Products complies to the international standard ISO 9001:2000. The efforts of ISO14001-certified ABB Switzerland Ltd. Low Voltage Products within the field of environmental protection are not only limited to compliance to international standards; we are also engaged and active of our own accord in protecting the environment – and for achieving the targets of reduction in CO<sub>2</sub> emissions we have received as confirmation the EnAW label of the economic energy agency. To retain this label, an independent check is made every two years.

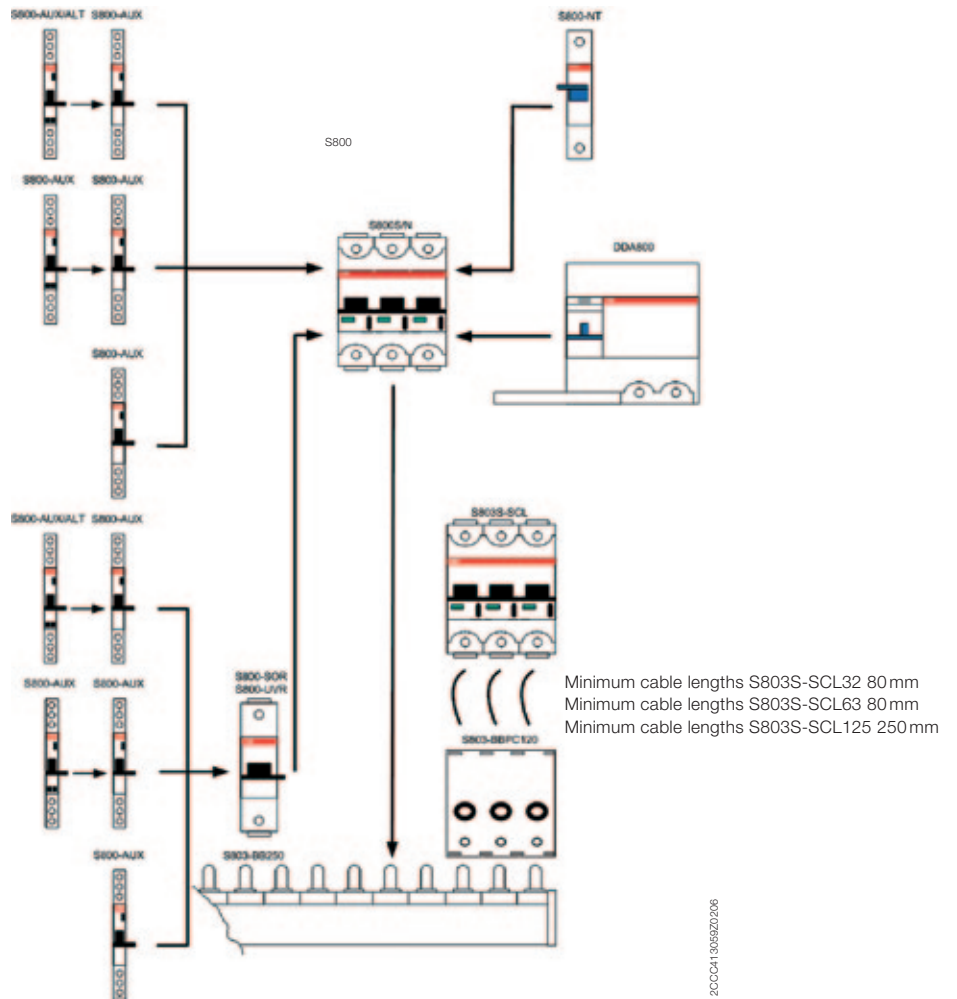
We are committed to a holistic approach in the reduction of environmental pollution. Among other things, this is manifested in our choice of non-toxic plastics, recyclable packaging material and environmentally sound handling of resources.



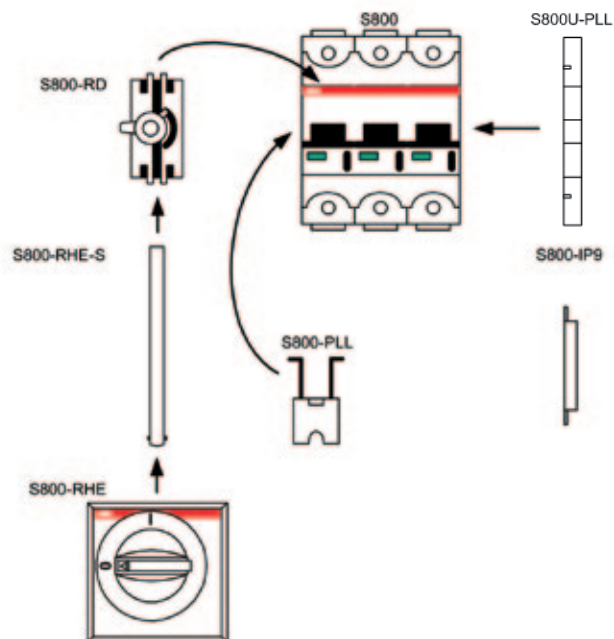
Approvals

# Properties Accessories

## Electrical properties



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## S800-AUX

### Auxiliary contact for external display

The S800-AUX auxiliary contact is for electrical display of the operating state of the high performance MCB. Both changeover contacts always switch simultaneously with the live conductor contact and detect the following operating states:

- Manual tripping
- Tripping due to thermal overload
- Tripping due to magnetic overload (short-circuit)

### Mode of function of the test button

The test button is operated by a tool and allows the user to simulate the mode of function of the auxiliary contact when switched on without tripping the high performance MCB itself.

### Mode of function of the two changeover contacts

- Off position of the high performance MCB      contacts 11–12 and 21–22 closed
- On position of the high performance MCB      contacts 11–14 und 21–24 closed

### Mounting ability of the auxiliary contact

- Two S800-AUX auxiliary contacts can be mounted by the user at the left on the high performance MCB.



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## S800-AUX/ALT

### Combined auxiliary and signal contact for the external display

The S800-AUX/ALT combined auxiliary and signal contact is used for electrical signaling of the operating state of the high performance MCB.

The **AUX** auxiliary contact always switches simultaneously with the live conductor contact and detect the following forms of tripping:

- Manual switch on/off
- Tripping due to thermal overload
- Tripping due to magnetic overload (short-circuit)
- Tripping by S800-SOR or S800-UVR

The **ALT** signal contact detects the following forms of tripping of the high performance MCB:

- Tripping due to thermal overload
- Tripping due to magnetic overload (short-circuit)
- Tripping by S800-SOR or S800-UVR

### Mode of function of the test button

The test button is operated by a tool and allows the user to simulate the mode of function of the combined auxiliary and signal contact when switched on without tripping the high performance MCB itself.

### Mode of function of the ALT reset button

The reset button, which can be used at will, resets the **ALT** signal contact after a tripping. The high performance MCB is switched on independent of the state of the **ALT** signal contact.

### Mode of function of the AUX changeover contact

- Off position of the high performance MCB      Contact 11–12 closed
- On position of the high performance MCB      Contact 11–14 closed

### Mode of function of the ALT changeover contact

- No ALT tripping      Contact 95–96 closed
- ALT tripping      Contact 95–98 closed



**S800-NT**  
**Disconnectable neutral conductor 63 A**

The S800 high performance MCB is force-opened before actuating the disconnectable neutral conductor S800-NT.

**Mounting ability of the S800-NT neutral conductor**

- The neutral conductor can be mounted by the user at the right on the high performance MCB.



**S800-RSU-H IEC version**  
**S800W-RSU World version**  
**Remote Switching Units for High Performance MCB**

The S800-RSU makes the use of S800 even more convenient. Driven by a brushless high precision DC motor, S800-RSU ensures fast remote-controlled operation.

**Mounting ability**

The S800-RSU is mountable on any multipole S800 High Performance MCB. Wiring and operation is feasible on field. The connection has to be done by a 10-pole Micro Fit 3.0 (not included in delivery). S800-RSU operated with standard MDRC pushbuttons and indicator lights or can be done via programmable logic controllers (PLCs).

**Switching times**

OFF -> ON <<500 ms  
 from signal to contact closing

ON -> OFF <<250 ms  
 from signal to contact opening

TRIP -> OFF -> ON <<1500 ms  
 from signal to contact closing

For differing requirements, please contact your local ABB partner

**Safety Intelligence**

- When detecting manual use, inputs are deactivated for 10 seconds
- If the spindle is rotated more than 360°, all outputs become active
- Manual switch off via lever is possible (S803, S804)
- Manual switch on via lever is not possible (S802)
- RSU is locked for five minutes after three switching attempts leading to a trip
- Mechanical fixation via lock slider blocking the spindle

# Properties Accessories

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## S800-RSU-CP

### S800-RSU cable incl. 10-pole Micro Fit 3.0 plug

Length of cable: 3 meters  
 Cross section: 10 x 0.5 mm<sup>2</sup>  
 Temperature range:  
     moving state: -5 °C ... +70 °C  
     fixed state: -30 °C ... +80 °C  
 Rated voltage: 300V  
 Conductor resistance: 39.0 Ω/km  
 Approvals: S+, UL

## S800-RSU-P

### 10-pole Micro Fit 3.0 plug

10-pole Micro Fit 3.0 plug with 12 loose crimped contacts. You need tongs for connecting.



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## S800-SOR

### Shunt opening release

The S800-SOR shunt opening release is for remote release of the S800- high performance MCB using an electrical impulse. Operation of the trigger is guaranteed at a voltage between 70 % and 110 % of the rated mains voltage  $U_n$  both for AC and DC.

### Mounting ability of the S800-SOR operating current release

– The S800-SOR can be mounted by the user at the left side of the high performance MCB.



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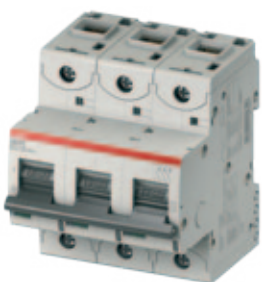
## S800-UVR

### Undervoltage release

The S800-UVR undervoltage release can be used as an emergency-stop cut-as by use of suitable emergency stop buttons. The undervoltage release switches the power supply to the high performance MCB off in case of a failure or if the value falls below  $0.7 \times U_n$ . After tripping, the high performance MCB can be switched back on as soon as the voltage is over  $0.85 \times U_n$ .

### Mounting ability of the S800-UVR undervoltage release

– The S800-UVR can be mounted by the user at the left side of the high performance MCB.



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## S803S-SCL

### Short-circuit current limiter

The S803S used together with an S803S-SCL ensures reliable switch-off of short-circuit currents up to **100 kA**, at an operating voltage of 440 VAC and over the entire rated current range of up to 125 A.

For applications at 690 VAC, the combination of S803S-SCL ensures reliable short-circuit protection up to **50 kA**; here also, this is ensured over the entire rated current range up to 125 A, typical for the S800.

Example combinations	Rated operational voltage $U_e$	Ultimate short-circuit breaking capacity $I_{cu}$	Service short-circuit breaking capacity $I_{cs}$
S803S-SCL125 +	440VAC	100 kA	100 kA
S803S-C125	690VAC	50 kA	50 kA
S803S-SCL63 +	440VAC	100 kA	100 kA
S803S-K63	690VAC	50 kA	50 kA
S803S-SCL32 +	440VAC	100 kA	100 kA
S803S-B16	690VAC	50 kA	50 kA



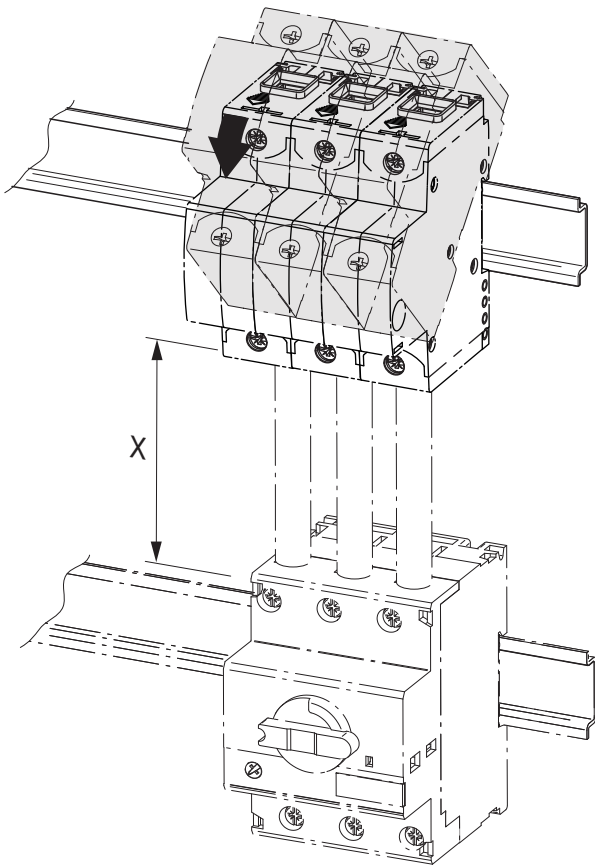


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**S800-SCL-SR**  
**Self-resetting short-circuit limiter**

The S800-SCL-SR can be used together with S800S High Performance MCB or Manual Motor Starters. It limits the short-circuit current until the downstream means of protection trips. Its current continuity makes it as the ideal solution for group protection. All parallel branches remain operative.

**Minimum cable length between S800-SCL-SR/S803S-SCL and downstream devices (Connection has to be short-circuit proofed acc. to IEC 61439-1)**



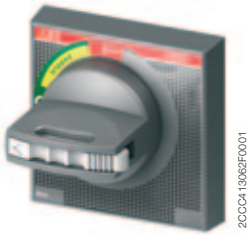
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**MS/M0325**  
**MS/M0132**  
**S800**

<b>S800-SCL-SR/S803S-SCL</b>	<b>min. length X</b>	<b>min. cross section</b>
32 A	80 mm	6 mm <sup>2</sup>
63 A	80 mm	16 mm <sup>2</sup>
100/125 A	250 mm	35 mm <sup>2</sup>

# Properties Accessories

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## S800-RD Rotary drive

The rotary drive for 2–4 pole devices can be delivered for assembly on the switching field door. Switching is effortless due to the ergonomic design of the swivel lever. It is equipped with a lock for the OFF position that prevents switching on of the S800 high performance MCB. The slot hole of the lock can accept up to 3 padlocks with lug diameters of 7 mm (not included in delivery). Operation of the trigger and a view of the characteristics are not prevented. Additionally, a rotary drive can also be supplied to switch machines; it has a red grip on a yellow background.

The rotary drive on the switching field door is comprised of the following three components:

- Rotary handle S800-RHE-H, -EM
- Axle (500 mm) S800-RHE-S



## S800-IP9 Intermediate piece

The S800-IP9 intermediate piece fits the profile of the high performance MCB and is used to fill in empty device slots. Thanks to its width of just 9mm, the slots of all devices of the S800 range can be expanded using this intermediate piece.



## S800-PLL Padlock device

The S800-PLL padlock device safely prevents unintentional switching on and off. Simply insert the lug of the padlock device through the borehole on the high performance MCB and lock with a padlock with lug diameter  $\varnothing$  4 mm (not included in delivery). Even when the high performance MCB is secured with an padlock device against unintentional switching off, tripping remains possible in case of overload or short-circuit by the S800-SOR, S800-UVR and DDA800.



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**S800U-PLL**

**Locking device – for the American market**

The S800U-PLL locking device prevents unintentional switch-on or off of the S800U high performance MCB, or switch on/off by third parties. It is mounted at the side of the high performance MCB and can only be removed using a special tool. A standardised American padlock (not included in delivery) is hung onto the round recess on the locking device, which can be secured by max six locks. Of course, tripping is possible by the S800-SOR or S800-UVR in case of overload or short-circuit.



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**S800-CT, -RT**

**Interchangeable adapter kit**

The S800 interchangeable adapter kit allows the cable clamp – ring terminal connections to be exchanged. Ring terminal connection -> Cage Terminal connection

The following is included in the S800-CT replaceable interchangeable adapter kit:

- Cage terminal
- Insulator

Cage Terminal connection -> ring terminal connection

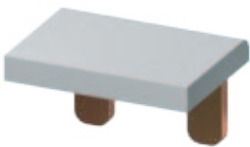
The following is included in the S800-RT replaceable interchangeable adapter kit:

- Nut, insulation nut – cable lug, Allen screw
- Insulator with 25 mm insulation walls

**S800-ILS**

**Identification labelling system**

The individual identification labelling system for ILS legend plates is a DIN A5 polyester foil for inkjet and laser printers with high temperature resistance (if a laser printer is used please check whether self-sticking foils with a thickness of 250 µm can be printed with it). The 3M™9471 LE adhesive backing is UL-approved with Appl. No. MH 11410. The single plates are butt-cut on one side. Can be manually labelled with ink, pen, pencil and felt pen.



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**S802-LINK50**

**Pole connector up to 50 A**

The pole connector S802-LINK50 can be used up to 50 A.



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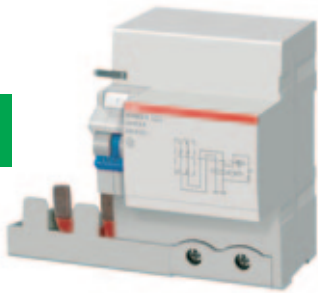
**S802-LINK125**

**Pole connector up to 125 A**

The pole connector S802-LINK125 can be used up to 125 A (please have a look to the technical details on page 1/38)

# Properties Accessories

2



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## DDA800 RCD Block

RCD blocks from the DDA800 family can be connected to the S800 high performance MCB. The DDA800 can be used both for sine-shaped AC fault currents (type AC) as well as for pulsed DC fault currents (type A). Typical ABB: Selective and short-term delay devices are also available. The functionality of the switching device can be checked at any time with the test button. The DDA800 FI switches ensure effective protection against fire and explosion. Devices with  $I_n \leq 30$  mA guarantee the protection of persons against shock currents caused by both direct and indirect touching in addition to the obligatory safety measures prescribed by the safety and accident-prevention regulations.

The DDA800 blocks comply to standard:

- EN 60947-2 Annex B

## Mounting ability of the DDA800 RCD blocks

- The leakage current trigger can be mounted by the user at the right on the live conductor.

## S800 Busbar system

The S800 busbar system is comprised of:

S803-BB250 250 A busbar, 3-pole with 24 terminal lugs and 2 end caps

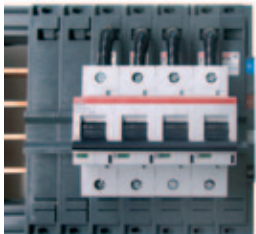
S803-BBPC120 120 mm<sup>2</sup> feed block, 3-pole

S800-BBIC Optional contact-protection cap for exposed terminal lugs

S800-END Optional end cap

The busbar, which can be shortened in length by the user, ensures the safe and rational connection of the S800 high performance MCB. A cable cross-section of up to 120 mm<sup>2</sup> can be connected at the feed block.

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## Unifix H

The Unifix H System with feed module up to 400 A provides the user a high standardised design of energy distribution. The wide range of assembly and adapter combinations which are also available for the S800 range increase flexibility allowing for compact and cost-effective design of the electrical distribution network.

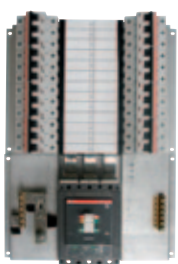
## The following adapters are available for the S800 range:

- ED2557 L1  $\leq 32$  A
- ED2558 L2  $\leq 32$  A
- ED2559 L3  $\leq 32$  A
- ED2560 N  $\leq 32$  A
- ED2551 L1 125 A
- ED2552 L2 125 A
- ED2553 L3 125 A
- ED2554 N 125 A
- ED2550 filler

## S800-Mirage

The type-tested S800 distribution box has been developed for easy and fast handling. Compact switch dimensions ensure the highest level of installation space for the housing. The removable head and floor flanges reduce the installation work to a minimum and allow additional expansion with cabinet base, additional cabinet elements and test equipment.

Detailed information is contained in the Mirage S800 document 1SKC802023C0202.



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## **Rated short-circuit capacity $I_{cn}$**

### **Compliant to EN 60898-1**

The maximum current which a switching device can switch off without damage at a rated operational voltage and rated operational frequency. It is specified as an effective value.

## **Rated ultimate short-circuit breaking capacity $I_{cu}$**

### **Compliant to EN 60947-2**

Ultimate short-circuit breaking capacity that a circuit breaker can switch off without damage at a rated operational voltage and rated operational frequency. It is specified as an effective value.

## **Rated service short-circuit breaking capacity $I_{cs}$**

### **Compliant to EN 60947-2**

Service short-circuit breaking capacity that a circuit breaker can switch off without damage at a rated operational voltage and rated operational frequency. It is specified as an effective value.

## **Rated insulation voltage $U_i$**

The rated insulation voltage is the voltage to which dielectric checks and creepage distances refer. The maximum rated operational voltage must not exceed its rated insulation voltage.

## **Rated impulse withstand voltage $U_{imp}$**

Peak of a withstand voltage of a specified form and polarity with which the circuit can be loaded under specified test conditions without a breakdown and to which clearances relate. The rated impulse withstand voltage must be equal to or greater than the values of the withstand over-voltages (transient overvoltages) which occur in the System in which the device is used.

## **Backup protection**

Assignment of two overcurrent protective devices in series, where the protective device, generally but not necessarily on the supply side, effects the overcurrent protection with or without the assistance of the other protective device and prevents excessive stress on the latter [IEC 60947-1, definition 2.5.24].

## **Total selectivity**

Overcurrent discrimination where, in the presence of two overcurrent protective devices in series, the protective device on the load side effects the protection without causing the other protective device to operate [IEC 60947-2, definition 2.17.2].

## **Partial selectivity**

Overcurrent discrimination where, in the presence of two overcurrent protective devices in series, the protective device on the load side effects the protection up to a given level of overcurrent, without causing the other protective device to operate [IEC 60947-2, definition 2.17.3].



# Table of content S800

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## 230 V Let-through energies

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S800C-B, -C, -D, -K	3/35
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## 230 V Let-through current

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# Technical data

## S800C

### S800C

		S800C
<b>General Data</b>		
Tripping characteristics		B, C, D, K
Standards		EN 60947-2, EN 60898-1
Poles		1 ... 4
Rated current $I_n$	A	10 ... 125
Rated frequency $f$	Hz	50/60
Rated insulation voltage $U_i$ acc. to IEC/EN 60664-1	V	AC 500
Rated impulse withstand voltage $U_{imp}$ (1.2/50 $\mu$ s)	kV	8
Overtoltage category		IV
Pollution degree		3
Suitability for isolation		yes
<b>Data acc. to IEC/EN 60898-1</b>		
Rated operational voltage $U_e$	V	AC 230/400
Min. operating voltage	V	AC 12
Rated short-circuit capacity $I_{cn}$	kA	15 kA
Reference temperature for tripping characteristics	$^{\circ}$ C	30 $^{\circ}$ C (Char. B, C, D)
Electrical and Mechanical Endurance	ops.	10 ... 32A: 10 000 electrical/mechanical 40 ... 100A: 6000 electrical/4000 mechanical 125A: 4000 electrical/6000 mechanical
Service short-circuit capacity $I_{cs}$	kA	Char. B, C, D: 230/400V = 7.5 kA
<b>Data acc. to IEC/EN 60947-2</b>		
Rated operational voltage $U_e$	V	AC 254/440 DC 125 (1-pole) DC 250 (2-pole) DC 375 (3-pole) DC 500 (4-pole)
Min. operating voltage	V	AC 12
Rated ultimate short-circuit capacity $I_{cu}$	kA	AC 240/415V = 25 kA AC 254/440V = 15kA DC 125V (1-pole) = 10 kA DC 250V (2-pole) = 10 kA DC 375V (3-pole) = 10 kA DC 500V (4-pole) = 10 kA
Rated service short-circuit capacity $I_{cs}$	kA	AC 240/415V = 18 kA AC 254/440V = 10 kA DC 125V (1-pole) = 10 kA DC 250V (2-pole) = 10 kA DC 375V (3-pole) = 10 kA DC 500V (4-pole) = 10 kA
Reference temperature for tripping characteristics	$^{\circ}$ C	B, C, D: 30 $^{\circ}$ C K: 40 $^{\circ}$ C
Electrical and Mechanical Endurance	ops.	10 ... 32A: 10 000 electrical/mechanical 40 ... 100A: 6000 electrical/4000 mechanical 125A: 4000 electrical/6000 mechanical
<b>Mechanical Data</b>		
Housing		Material group 1, RAL 7035
Toggle		black, lockable
Classification acc. To NF F 126-101, NF F 16-102		I3, F2
Protection degree acc. to EN 60529		IP20; IP40 (actuating end only)
Shock resistance acc. to IEC/EN 60068-2-30		IEC 61373 Cat. 1 Class B, 5 g / 30 ms acc. To IEC 60068-27 Test Ea
Vibration resistance acc. to IEC/EN 60068-2-6		IEC 60068-2-6 Test Fc; 2–13.2 Hz/1 mm 13.2–100 Hz/0.7 g with load 100% x le
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	$^{\circ}$ C/RH	12 + 12 cycle with 55 $^{\circ}$ C/90–96% and 25%/95–100%
Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B	$^{\circ}$ C/RH	16 hours 55 $^{\circ}$ C/2 hours 70 $^{\circ}$ C with damp heat 55%
Ambient temperature	$^{\circ}$ C	–25 ... +60
Storage temperature	$^{\circ}$ C	–40 ... +70

# Technical data

## S800C

3

		<b>S800C</b>
<b>Installation</b>		
Terminal		Failsafe cage or ringlug terminal
Connections (top/bottom) – C <sub>u</sub> only	mm <sup>2</sup>	1 ... 50 stranded 1 ... 70 flexible
Tightening torque	Nm in-lbs.	3.5 31
Screwdriver		POZI 2
Mounting		EN 60715
Mounting position		any
Supply		any
<b>Dimensions and weight</b>		
Pole dimensions (H x L x W)	mm	82.5 x 95 x 26.5
Pole weight	g	ca. 240

### Typical internal resistances and power losses at 25 °C ambient temperature (per pole)

Rated current I <sub>n</sub> [A]	Internal resistance R <sub>i</sub> [mΩ]	Power loss P <sub>v</sub> [W]
	B, C, D, K	B, C, D, K
10	15.2	1.5
13	12.1	2
16	12.1	3.1
20	8.7	3.5
25	6.8	4.3
32	3.1	3.2
40	2.3	3.7
50	1.7	4.3
63	1.6	6.4
80	1	6.4
100	0.8	8
125	0.6	9.4

### Maximum permissible earth-fault loop impedance Z<sub>s</sub> at U<sub>0</sub> 230 V\* to ensure compliance with the requirements of IEC 60364-4

The instantaneous release of the MCB ensures an operating time of max. 0.1 s (TN system). Determined according to IEC 60364-5-52 / VDE 0100-520 and DIN VDE 0100-520 sheet 2:2002 (source impedance 300 mΩ, c = 0.95 and conductor temperature 70 °C = factor 0.8). The internal resistance of the MCB is included.

\* U<sub>0</sub>: rated voltage against earthed conductor; for U<sub>0</sub>: AC 240V multiply Z<sub>s</sub> by 1.04, for U<sub>0</sub>: AC 254V multiply Z<sub>s</sub> by 1.10, for U<sub>0</sub>: AC 400V multiply Z<sub>s</sub> by 1.74

Rated current (A)	B	C	D	K
		max. Z <sub>s</sub> (Ω)		
10	4.8	2.4	1.5	1.5
13	3.7	1.8	1.1	1.1
16	3.0	1.5	0.9	0.9
20	2.4	1.2	0.7	0.7
25	1.9	1.0	0.6	0.6
32	1.5	0.7	0.5	0.5
40	1.2	0.6	0.4	0.4
50	1.0	0.5	0.3	0.3
63	0.8	0.4	0.2	0.2
80	0.6	0.3	0.2	0.2
100	0.5	0.2	0.1	0.1
125	0.4	0.2	0.1	0.1

# Technical data

## Performance at different ambient temperatures

### Derating of load capability of S800

The table refers to the product standard IEC 60947-2. These values are only valid if the mounting conditions are similar to the IEC 60947-2.

The rated value of the current of the S800 refers to a calibration temperature of 30 °C for characteristics B, C and D. For characteristics K and UCK it refers to 40 °C and the UL-version (S800U) refers to a calibration temperature of 25 °C.

Max. operating current depending on the ambient temperature of S800 with characteristic B, C, D, PV-S, UCB

B, C, D, PV-S, UCB	Ambient temperature [°C]																				
	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
In [A]	7.2	7.1	7.0	6.9	6.8	6.7	6.6	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
6	9.6	9.5	9.3	9.2	9.0	8.9	8.7	8.6	8.4	8.3	8.1	8.0	7.9	7.7	7.6	7.4	7.3	7.1	7.0	6.8	6.7
8	12.0	11.8	11.7	11.5	11.3	11.1	10.9	10.7	10.6	10.4	10.2	10.0	9.8	9.6	9.4	9.3	9.1	8.9	8.7	8.5	8.3
10	15.6	15.4	15.1	14.9	14.7	14.4	14.2	14.0	13.7	13.5	13.2	13.0	12.8	12.5	12.3	12.0	11.8	11.6	11.3	11.1	10.9
13	19.2	18.9	18.6	18.3	18.1	17.8	17.5	17.2	16.9	16.6	16.3	16.0	15.7	15.4	15.1	14.8	14.5	14.2	13.9	13.7	13.4
16	24.0	23.7	23.3	22.9	22.6	22.2	21.8	21.5	21.1	20.7	20.4	20.0	19.6	19.3	18.9	18.5	18.2	17.8	17.4	17.1	16.7
20	30.0	29.6	29.1	28.7	28.2	27.8	27.3	26.8	26.4	25.9	25.5	25.0	24.5	24.1	23.6	23.2	22.7	22.2	21.8	21.3	20.9
25	38.5	37.9	37.3	36.7	36.1	35.5	34.9	34.3	33.8	33.2	32.6	32.0	31.4	30.8	30.2	29.7	29.1	28.5	27.9	27.3	26.7
32	48.1	47.3	46.6	45.9	45.1	44.4	43.7	42.9	42.2	41.5	40.7	40.0	39.3	38.5	37.8	37.1	36.3	35.6	34.9	34.1	33.4
40	60.1	59.2	58.3	57.3	56.4	55.5	54.6	53.7	52.8	51.8	50.9	50.0	49.1	48.2	47.2	46.3	45.4	44.5	43.6	42.7	41.7
50	75.7	74.6	73.4	72.2	71.1	69.9	68.8	67.6	66.5	65.3	64.2	63.0	61.8	60.7	59.5	58.4	57.2	56.1	54.9	53.8	52.6
63	96.1	94.7	93.2	91.7	90.3	88.8	87.3	85.9	84.4	82.9	81.5	80.0	78.5	77.1	75.6	74.1	72.7	71.2	69.7	68.3	66.8
80	120.2	118.4	116.5	114.7	112.8	111.0	109.2	107.3	105.5	103.7	101.8	100.0	98.2	96.3	94.5	92.7	90.8	89.0	87.2	85.3	83.5
100	150.2	147.9	145.6	143.4	141.1	138.8	136.5	134.2	131.9	129.6	127.3	125.0	122.7	120.4	118.1	115.8	113.5	111.2	108.9	106.7	104.4
125																					

Max. operating current depending on the ambient temperature of S800 with characteristic K, UCK

K, UCK	Ambient temperature [°C]																				
	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
In [A]	12.4	12.2	12.0	11.8	11.7	11.5	11.3	11.1	10.9	10.7	10.6	10.4	10.2	10.0	9.8	9.6	9.4	9.3	9.1	8.9	8.7
10	16.1	15.9	15.6	15.4	15.1	14.9	14.7	14.4	14.2	14.0	13.7	13.5	13.2	13.0	12.8	12.5	12.3	12.0	11.8	11.6	11.3
13	19.8	19.5	19.2	18.9	18.6	18.3	18.1	17.8	17.5	17.2	16.9	16.6	16.3	16.0	15.7	15.4	15.1	14.8	14.5	14.2	13.9
16	24.8	24.4	24.0	23.7	23.3	22.9	22.6	22.2	21.8	21.5	21.1	20.7	20.4	20.0	19.6	19.3	18.9	18.5	18.2	17.8	17.4
20	31.0	30.5	30.0	29.6	29.1	28.7	28.2	27.8	27.3	26.8	26.4	25.9	25.5	25.0	24.5	24.1	23.6	23.2	22.7	22.2	21.8
25	39.6	39.0	38.5	37.9	37.3	36.7	36.1	35.5	34.9	34.3	33.8	33.2	32.6	32.0	31.4	30.8	30.2	29.7	29.1	28.5	27.9
32	49.5	48.8	48.1	47.3	46.6	45.9	45.1	44.4	43.7	42.9	42.2	41.5	40.7	40.0	39.3	38.5	37.8	37.1	36.3	35.6	34.9
40	61.9	61.0	60.1	59.2	58.3	57.3	56.4	55.5	54.6	53.7	52.8	51.8	50.9	50.0	49.1	48.2	47.2	46.3	45.4	44.5	43.6
50	78.0	76.9	75.7	74.6	73.4	72.2	71.1	69.9	68.8	67.6	66.5	65.3	64.2	63.0	61.8	60.7	59.5	58.4	57.2	56.1	54.9
63	99.1	97.6	96.1	94.7	93.2	91.7	90.3	88.8	87.3	85.9	84.4	82.9	81.5	80.0	78.5	77.1	75.6	74.1	72.7	71.2	69.7
80	123.9	122.0	120.2	118.4	116.5	114.7	112.8	111.0	109.2	107.3	105.5	103.7	101.8	100.0	98.2	96.3	94.5	92.7	90.8	89.0	87.2
100	154.8	152.5	150.2	147.9	145.6	143.4	141.1	138.8	136.5	134.2	131.9	129.6	127.3	125.0	122.7	120.4	118.1	115.8	113.5	111.2	108.9
125																					

# Technical data

## Performance at different ambient temperatures

Max. operating current depending on the ambient temperature of S800U-K, -Z, -UCZ, -PVS5

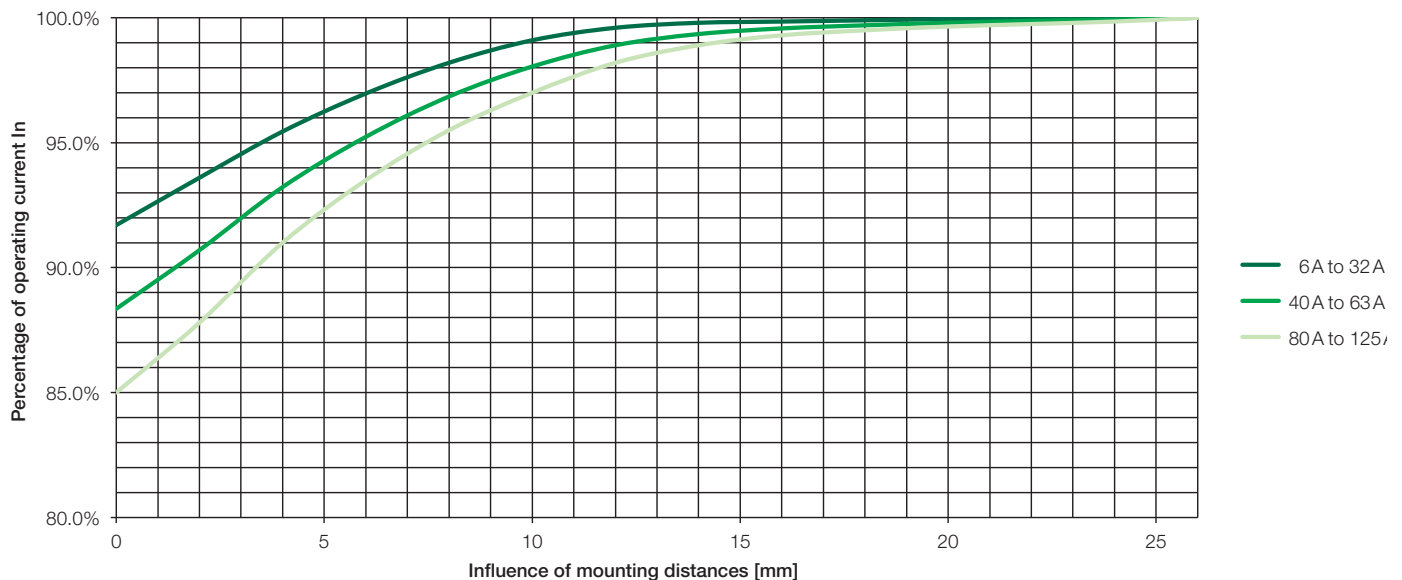
U-K, Z, UCZ, PVS5	Ambient temperature [°C]																				
	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
$I_n$ [A]	5.9	5.8	5.7	5.6	5.6	5.5	5.4	5.3	5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.4	4.3	4.2	4.1
5	11.8	11.7	11.5	11.3	11.1	10.9	10.7	10.6	10.4	10.2	10.0	9.8	9.6	9.4	9.3	9.1	8.9	8.7	8.5	8.3	8.2
10	15.4	15.1	14.9	14.7	14.4	14.2	14.0	13.7	13.5	13.2	13.0	12.8	12.5	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.6
13	18.9	18.6	18.3	18.1	17.8	17.5	17.2	16.9	16.6	16.3	16.0	15.7	15.4	15.1	14.8	14.5	14.2	13.9	13.7	13.4	13.1
16	23.7	23.3	22.9	22.6	22.2	21.8	21.5	21.1	20.7	20.4	20.0	19.6	19.3	18.9	18.5	18.2	17.8	17.4	17.1	16.7	16.3
20	29.6	29.1	28.7	28.2	27.8	27.3	26.8	26.4	25.9	25.5	25.0	24.5	24.1	23.6	23.2	22.7	22.2	21.8	21.3	20.9	20.4
25	37.9	37.3	36.7	36.1	35.5	34.9	34.3	33.8	33.2	32.6	32.0	31.4	30.8	30.2	29.7	29.1	28.5	27.9	27.3	26.7	26.1
32	47.3	46.6	45.9	45.1	44.4	43.7	42.9	42.2	41.5	40.7	40.0	39.3	38.5	37.8	37.1	36.3	35.6	34.9	34.1	33.4	32.7
40	59.2	58.3	57.3	56.4	55.5	54.6	53.7	52.8	51.8	50.9	50.0	49.1	48.2	47.2	46.3	45.4	44.5	43.6	42.7	41.7	40.8
50	74.6	73.4	72.2	71.1	69.9	68.8	67.6	66.5	65.3	64.2	63.0	61.8	60.7	59.5	58.4	57.2	56.1	54.9	53.8	52.6	51.4
63	94.7	93.2	91.7	90.3	88.8	87.3	85.9	84.4	82.9	81.5	80.0	78.5	77.1	75.6	74.1	72.7	71.2	69.7	68.3	66.8	65.3
80	118.4	116.5	114.7	112.8	111.0	109.2	107.3	105.5	103.7	101.8	100.0	98.2	96.3	94.5	92.7	90.8	89.0	87.2	85.3	83.5	81.7
100	147.9	145.6	143.4	141.1	138.8	136.5	134.2	131.9	129.6	127.3	125.0	122.7	120.4	118.1	115.8	113.5	111.2	108.9	106.7	104.4	102.1
125																					

### Influence of mounting distances between the devices

Multiply the rated current referring to your max. occurent temperature with the factor of "influence of mounting distances"

Example: 2 x S802B-B125 at T= 35 °C with 5 mm distance

$$I_n = 120.4 \text{ A} \times 92.1 \% = 110.9 \text{ A}$$

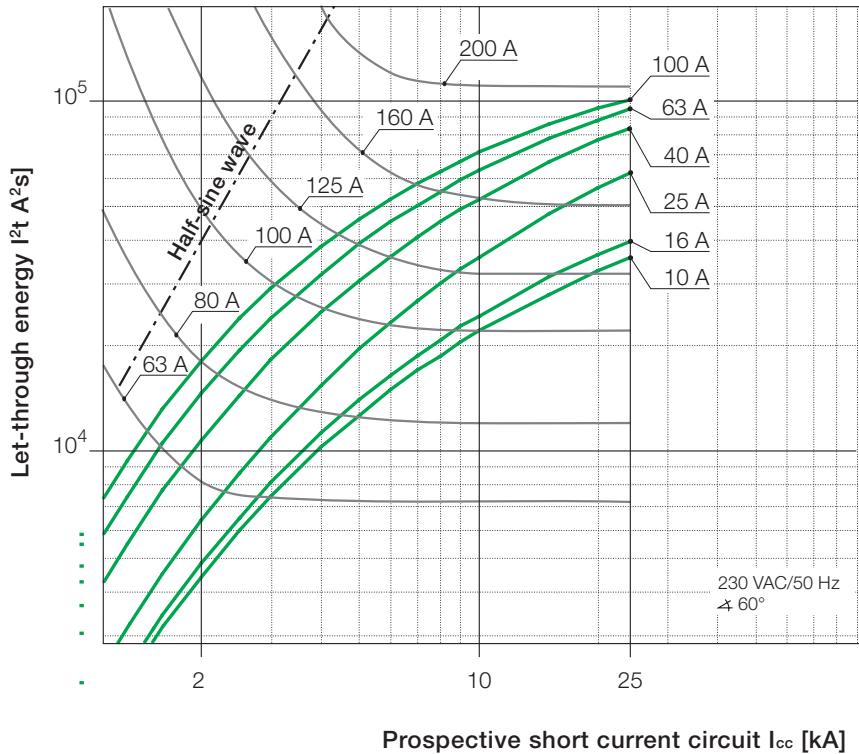
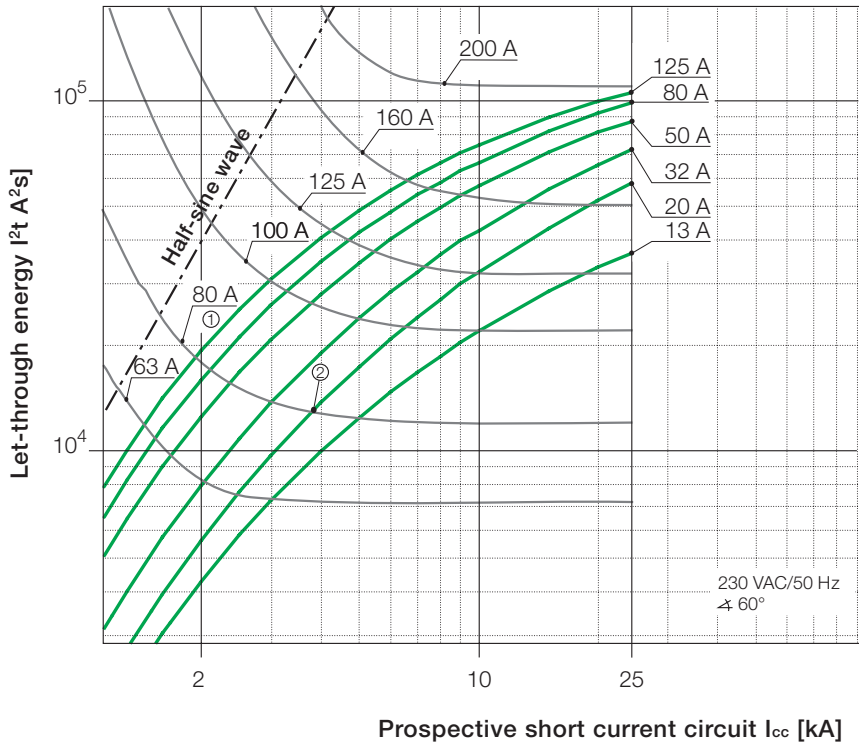


Further influencing factors, which can lead to a reduction of the maximum operating current, are:

- Shortening the cable length compared to IEC 60947-1/-2
- Reducing the cable cross section compared to IEC 60947-1/-2
- Accumulation of cables



# 230/400 V Let-through energies S800C-B, -C, -D, -K



- ① Min. pre-arcing I<sub>2t</sub>, e.g. NH80A gL/gG
- ② Max. let-through I<sub>2t</sub>, e.g. S801C-C20

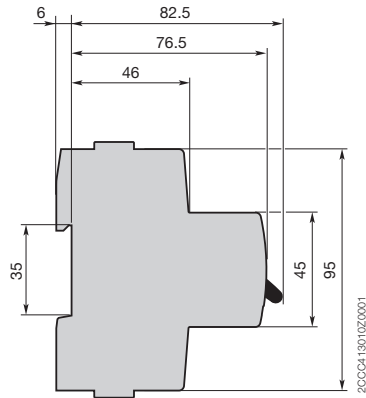
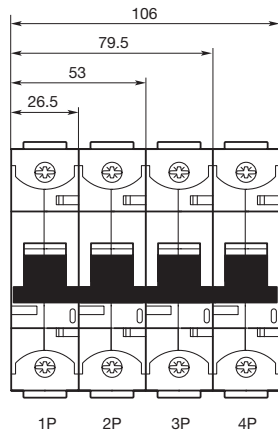
Selectivity with respect to upstream fuse to the point of intersection of both curves 1 and 2, e.g. S801C-C20 to NH80A gL/gG: Selectivity up to min. 3.8kA

# Pole dimensions

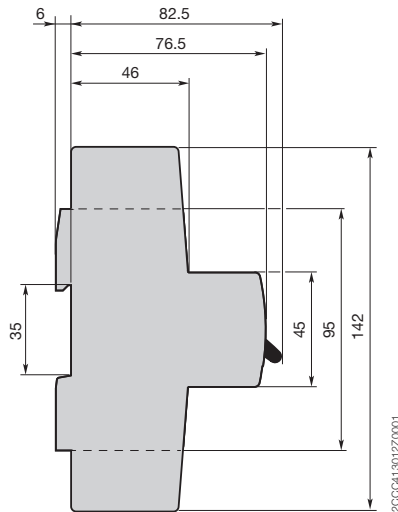
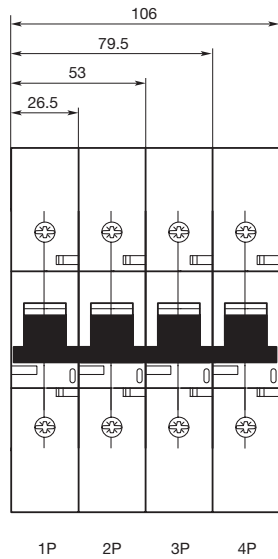
## High performance MCB

S800S  
S800N  
S800C  
S800B  
S800U  
S800PV-S  
S800PV-M

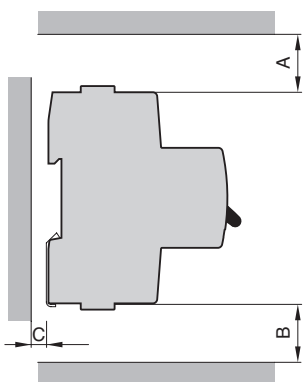
4



S800  
with Ringlug  
terminals



# Dimensions of accessories



20CC04130056Z0002

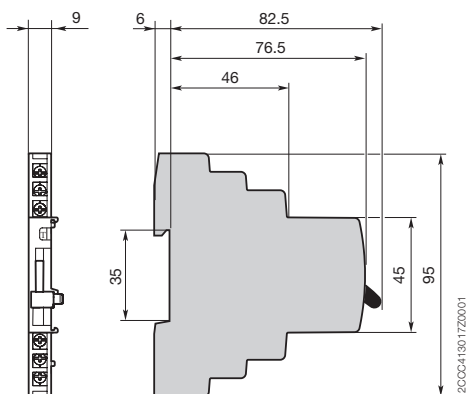
## Mounting clearances in mm

Dimensions	To grounded parts, insulating covers or cable ducts (DIN-rail can be ignored)	To bare, live parts where busbar clearance is 10 mm
A	25	100
B	25	100
C	7	50

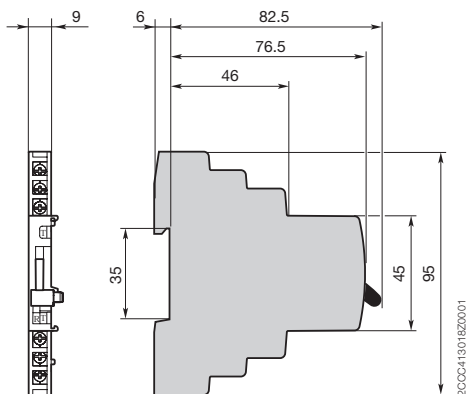
## Mounting clearances in mm for 690 VAC operation

Dimensions	To insulating covers or cable ducts (DIN-rail can be ignored)	To grounded parts	To bare, live parts
A	25	50	On request
B	25	25	On request
C	7	50	On request

### S800-AUX



### S800-AUX/ALT



### S800-NT

