

MCBs

S 200 technical features

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S 200

2CDC021096S0012

		S 200	S 200 M	
General Data	Standards	IEC/EN 60898-1, IEC/EN 60947-2 UL 1077	IEC/EN 60898-1, IEC/EN 60947-2 UL 1077, CSA 22.2 No. 235	
	Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N		
	Tripping characteristics	B, C, D, K, Z		
	Rated current I_n	A	0.5...63 A	
	Rated frequency f	Hz	50 / 60 Hz	
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	V	250 V AC (phase to ground), 500 V AC (phase to phase)	
	Overvoltage category	III		
	Pollution degree	3		
Data acc. to IEC/EN 60898-1 (except S 200 M UC data acc. to IEC/EN 60898-2)	Rated operational voltage U_n	V	1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC	
	Max. power frequency recovery voltage (U_{max})	V	1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC	
	Min. operating voltage	V	12 V AC - 12 V DC	
	Rated short-circuit capacity I_{cn}	kA	6 kA	10 kA
	Energy limiting class (B, C up to 40 A)	3		
	Rated impulse withstand voltage U_{imp} . (1.2/50 μ s)	kV	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
	Dielectric test voltage	kV	2 kV (50 / 60Hz, 1 min.)	
	Reference temperature for tripping characteristics	°C	B, C, D: 30°C	
	Electrical endurance	ops.	$I_n < 32A$: 20,000 ops (AC), $I_n \geq 32A$: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, $I_n \leq 32A$), (1 cycle 2s - ON, 28s - OFF, $I_n > 32A$)	
	Data acc. to IEC/EN 60947-2	Rated operational voltage U_e	V	1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 440 V AC; 3P+N: 440 V AC
Max. power frequency recovery voltage (U_{max})		V	1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 462 V AC; 3P+N: 462 V AC; 1P: 72 V DC; 2P: 125 V DC	
Min. operating voltage		V	12 V AC - 12 V DC	
Rated ultimate short-circuit breaking capacity I_{cu}		kA	10 kA	15 kA
Rated service short-circuit breaking capacity I_{cs}		kA	7.5 kA	$\leq 40 A$: 11.2 kA 50, 63 A: 7.5 kA
Rated impulse withstand voltage U_{imp} . (1.2/50 μ s)		kV	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
Dielectric test voltage		kV	2 kV (50 / 60Hz, 1 min.)	
Reference temperature for tripping characteristics		°C	B, C, D: 55°C; K, Z: 20°C	
Electrical endurance		ops.	$I_n < 32A$: 20,000 ops (AC), $I_n \geq 32A$: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, $I_n \leq 32A$), (1 cycle 2s - ON, 28s - OFF, $I_n > 32A$)	

Note:
* Only acc. to IEC/EN 60898-1

S 200 M UC	S 200 P	S 200 PR	S 200 S	S 200 U	S 200 UP	SU 200 PR	S 200 UDC
IEC/EN 60898-2, IEC/EN 60947-2	IEC/EN 60898-1, IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60898-1	IEC/EN 60947-2		IEC/EN 60947-2	
	UL 1077, CSA 22.2 No. 235	UL 1077, CSA 22.2 No. 235		UL 489, CSA22.2 No.5		UL 489, CSA22.2 No.5	UL 489
1P, 2P, 3P, 4P	1P, 2P, 3P, 4P, 1P+N, 3P+N	1P, 2P, 3P, 4P	1P, 3P	1P, 2P, 3P, 4P		1P, 2P, 3P, 4P	1P, 2P
B, C, K, Z	B, C, D, K, Z	K	B, C	C, K, Z		K	
0.2...63 A			6...20 A	0.2...63 A	0.2...25 A	0.2...63 A	1...63 A
0 / 50 / 60 Hz	50 / 60 Hz	50 / 60 Hz					DC
253 V AC (phase to ground), 440 V AC (phase to phase)	250 V AC (phase to ground), 500 V AC (phase to phase)		250 V AC (phase to ground), 440 V AC (phase to phase)				
							--
2							--
1P: 230 V AC, 220 V DC 2P: 400 V AC, 440 V DC 3...4P: 400 V AC*			1P: 230 V AC, 3P: 440 V AC	--			
1P: 253 V AC, 250 V DC 2P: 440 V AC, 500 V DC 3...4P:440 V AC*			1P: 253 V AC, 3P: 440 V AC	--			
			12 V AC	--			
10 kA	≤ 25 A: 25 kA > 25 A: 15 kA		6 kA	--			
				--			
				--			
				--			
30 °C			B, C: 30 °C 20,000 ops.	--			
				--			
1P: 253 V AC, 220 V DC 2...4P: 440 V AC, 440 V DC	1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 400 V AC; 3P+N: 400 V AC	1P: 230 V AC 2...4P: 400 V AC		1P: 230 V AC 2...4P: 400 V AC		1P: 230 V AC 2...4P: 400 V AC	--
1P: 266 V AC, 250 V DC 2...4P: 462 V AC, 500 V DC	1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC	1P: 253 V AC 2...4P: 440 V AC		1P: 253/440 V AC; 2...4P: 440 V AC		1P: 253 V AC 2...4P: 440 V AC	--
		12 V AC		12 V AC			--
≤ 40 A: 10 kA AC; 10 kA DC > 40 A: 6 kA AC; 10 kA DC	≤ 25 A: 25 kA ≥ 32 A: 15 kA	15 kA		10 kA		15 kA	--
≤ 40 A: 7.5 kA AC; 10 kA DC > 40 A: 6 kA(AC; 10 kA DC	≤ 25 A: 12.5 kA ≤ 32...40 A: 11.2 kA 50, 63 A: 7.5 kA	≤ 40 A: 11.2 kA; > 40 A: 7.5 kA AC;		7.5 kA		≤ 40 A: 11.2 kA; > 40 A: 7.5 kA (AC);	--
							--
							--
B, C: 55 °C; K, Z: 20 °C		20 °C		C, K, Z: 20°C		20 °C	--
In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,500 ops. (DC);	In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, In ≤ 32A), (1 cyle 2s - ON, 28s - OFF, In ≥ 32A)	In < 25A: 20,000 ops (AC), In ≥ 25A: 10,000 ops. (AC);				In < 25A: 20,000 ops (AC), In ≥ 25A: 10,000 ops. (AC);	--

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			S 200	S 200 M
Data acc. to UL / CSA	Rated voltage	V	480Y / 277 V AC;	480Y / 277 V AC;
			1P: 60 V DC; 2P...4P: 110 V DC	1P: 60 V DC; 2P...4P: 125 V DC
	Rated interrupting capacity acc. to UL 1077	kA	6 kA AC; 10 kA DC	
	Short-circuit current rating acc. to UL 489		--	
	Application		Suppl. prot. for general use. Application Codes: TC2, OL0, SC: U1	
	Reference temperature for tripping characteristics	°C	B, C, D, K, Z: 25°C	
	Electrical endurance	ops.	6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1s - ON, 9s - OFF)	
Mechanical Data	Housing		Insulation group II, RAL 7035	
	Toggle		Insulation group II, black, sealable	
	Contact position indication		Marking on toggle (I ON / 0 OFF), Real CPI (red ON / green OFF)	
	Protection degree acc. to EN 60529		IP20*, IP40 in enclosure with cover	
	Mechanical endurance	ops.	20,000 ops.	
	Shock resistance acc. to IEC/EN 60068-2-27		25 g - 2 shocks - 13 ms	
	Vibration resistance acc. to IEC/EN 60068-2-6		5g - 20 cycles at 5...150...5 Hz with load 0.8In	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%	
	Ambient temperature	°C	-25 ... +55°C	
Storage temperature	°C	-40 ... +70°C		

Note:

* Also fulfilling the requirement acc. to the protection degree IPXXB

** Only with accessory: IP20 terminal clip

S 200 M UC	S 200 P	S 200 PR	S 200 S	S 200 U	S 200 UP	SU 200 PR	S 200 UDC
480Y / 277 V AC	480Y / 277 V AC	480Y / 277 V AC		240 V AC	480 Y / 277 V AC	1P: ≤ 35 A: 277 V AC; > 35 A: 240 V AC 2...4P: ≤ 35 A: 480 / 277 V AC; > 35 A: 240 V AC	
1P: 250 V DC 2...4P: 500 V DC		480 / 277 V AC					1P: 60 V DC 2P: 125 V DC
	≤ 25 A: 10 kA > 25 A: 6 kA	10 kA		--			
				10 kA		10 kA	14 kA (UL)
TC1, 0L0, SC: U1	TC2, 0L0, SC: U1	Ring tongue terminal, not for general use				Ring tongue terminal, not for general use	
		25 °C		C, K, Z: 25 °C		25 °C	
						6,000 ops. (1 cycle 1s - ON, 9s - OFF)	
Insulation group I, RAL 7035			Insulation group II, RAL 7035			Insulation group I, RAL 7035	
					IP20**, IP40 in enclosure with cover		
	30 g - 3 shocks - 11 ms	25 g - 2 shocks - 13 ms	25 g - 2 shocks - 13 ms	30 g - 3 shocks - 11 ms		25 g - 2 shocks - 13 ms	

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		S 200		S 200 M	
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal			
	Cross-section of conductors (top / bottom)	Solid / Stranded	mm ²	35 mm ² / 35 mm ²	
		Flexible	mm ²	25 mm ² / 25 mm ²	
	Cross-section of busbars (top / bottom)	AWG	18 - 4 AWG	14 - 4 AWG	
		mm ²	10 mm ² / 10 mm ²		
	Tightening Torque ①	Nm	2.8 Nm		
		in-lbs.	18 in-lbs.		
	Screwdriver	No. 2 Pozidrive			
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip				
Mounting position	any				
Supply	optional				
Dimensions and weight	Mounting dimensions acc. to DIN 43880	Mounting dimension 1			
	Pole dimensions (H x D x W)	mm	88 x 69 x 17.5 mm		
	Pole weight	g	approx. 115 g		
Combination with aux. elements	Auxiliary contact	Yes			
	Signal contact	Yes			
	Shunt trip	Yes			
	Undervoltage release	Yes			
	Motor Operating Device	Yes			
	Integrated auxiliary switch	Yes			

① Nm-values acc. IEC / in-lbs.-values acc. UL

S 200 M UC	S 200 P	S 200 PR	S 200 S	S 200 U	S 200 UP	SU 200 PR	S 200 UDC
		Ring Tongue Terminal	Failsafe bi-directional cylinder-lift terminal			Ring Tongue Terminal	--
	25 mm ² / 25 mm ²		35 mm ² / 35 mm ²				--
	16 mm ² / 16 mm ²	25 mm ² / 25 mm ²	25 mm ² / 25 mm ²				--
	18 - 4 AWG					18 - 4 AWG	--
	18 - 8 AWG						--
	2.8 Nm						--
	25 in-lbs.						--
Please note polarity of device	optional		bottom		optional	top or bottom	Please note polarity of device
				--		Mounting dimension 1	
85 x 69 x 17.5 mm	88 x 69 x 17.5 mm	100 x 69 x 17.5 mm	89 x 69 x 17.5 mm	92 x 71 x 17.5 mm	100 x 71 x 17.5 mm	115 x 69 x 17.5 mm	92 x 71 x 17.5 mm
approx. 125 g	approx. 140 g	approx. 125 g	approx. 100 g	approx. 140g	approx. 140g	approx. 125 g	
		No	No	Yes	No	No	
		No	Yes	No			