

Technical Features Table for miniature circuit-breakers SH 200 Series

General Data	
Standards	
Poles	
Tripping Characteristics	
Rated Current I_n	A
Rated frequency f	Hz
Rated insulation voltage U_i acc. To IEC/EN 60664-1	V
Overvoltage category	
Pollution degree	
Data acc. to IEC/EN 60898-1	
Rated operational voltage U_n	V
Max. power frequency recovery voltage (U_{max})	V
Min. operating voltage	V
Rated short-circuit capacity I_{on}	kA
Energy limiting class (B, C up to 40 A)	
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	kV
Dielectric test voltage	kV
Reference temperature for tripping characteristics	°C
Electrical endurance	ops.
Mechanical Data	
Housing	
Toggle	
Contact position indication	
Protection degree acc. To EN 60529	
Mechanical endurance	ops.
Shock resistance acc. To IEC/EN 60068-2-27	
Vibration resistance acc. To IEC/EN 60068-2-6	
Environmental conditions (damp heat cyclic) acc. To IEC/EN 60068-2-30	°C/RH
Ambient temperature	°C
Storage temperature	°C
Installation	
Terminal	
Cross-section of conductors (top/bottom)	mm ²
Torque	Nm
Screwdriver	
Mounting	
Mounting position	
Supply	
Dimension and weight	
Mounting dimensions acc. To DIN 43880	
Pole dimensions (H x D x W)	mm ²
Pole weight	g
Combinations with aux. elements	
Accessories mountable	

Technical Features Table for miniature circuit-breakers SH 200 Series



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SH 200	SH 200 L
IEC/EN 60898-1	
1P, 2P, 3P, 4P, 1P+N, 3P+N	
B, C	
6...40 A	
50 / 60 Hz	
250 V AC (phase to ground), 440 V AC (phase to phase)	
III	
2	
1P: 230/440 V AC, 1P+N: 230, 2P...4P: 400 V AC, 3P+N: 400 V AC	
1P: 253 V AC, 1P+N: 253 V AC, 2P...4P: 440 V AC, 3P+N: 440 V AC	
12 V AC - 12 V DC	
6 kA	4.5 kA
3	
4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000m)	
2 kV (50 / 60 Hz, 1 min.)	
B, C : 30 °C	
$I_n < 32 A$: 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, $I_n > 32A$)	
Insulation group II, RAL 7035	
Insulation group II, black, sealable	
Marking on toggle (I ON / 0 OFF)	
IP20*, IP40 in enclosure with cover	
20,000 ops.	
25 g - 3 shocks - 11 ms	
5g - 20 cycles at 5...150...5 Hz with load $0.8 I_n$	
28 cycles with 55 °C/90-96% and 25 °C/95-100%	
-25 ... +55 °C	
-40 ... +70 °C	
Cage Terminal	
25 mm ² / 25 mm ²	
2.0 Nm	
No. 2 Pozidrive	
On DIN rail 35 mm acc. to EN 60715 by fast clip	
any	
optional	
Mounting dimension 1	
85 x 69 x 17.4 mm	
ca. 115 g	
No	

Technical Features Table for miniature circuit-breakers S 200 Series

General Data		
	Standards	
	Poles	
	Tripping Characteristics	
	Rated Current I_n	A
	Rated frequency f	Hz
	Rated insulation voltage U_i acc. To IEC/EN 60664-1	V
	Overvoltage category	
	Pollution degree	
Data acc. to IEC/EN 60898-1	Rated operational voltage U_n	V
	Max. power frequency recovery voltage (U_{max})	V
	Min. operating voltage	V
	Rated short-circuit capacity I_{on}	kA
	Energy limiting class (B, C up to 40 A)	
	Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	kV
	Dielectric test voltage	kV
	Reference temperature for tripping characteristics	$^{\circ}$ C
	Electrical endurance	ops.
Data acc. to IEC/EN 60947-2	Rated operational voltage U_n	V
	Max. power frequency recovery voltage (U_{max})	V
	Min. operating voltage	V
	Rated ultimate short-circuit breaking capacity I_{cu}	kA
	Rated service short-circuit breaking capacity I_{cs}	kA
	Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	kV
	Dielectric test voltage	kV
	Reference temperature for tripping characteristics	$^{\circ}$ C
	Electrical endurance	ops.
Data acc. to UL/CSA	Rated voltage	V
	Rated interrupting capacity acc. To UL 1077	kA
	Short-circuit current rating acc. to UL 489	kA
	Application	
	Reference temperature for tripping characteristics	$^{\circ}$ C
	Electrical endurance	ops.
Mechanical Data	Housing	
	Toggle	
	Contact position indication	
	Protection degree acc. To EN 60529	
	Mechanical endurance	ops.
	Shock resistance acc. To IEC/EN 60068-2-27	
	Vibration resistance acc. To IEC/EN 60068-2-6	
	Environmental conditions (damp heat cyclic) acc. To IEC/EN 60068-2-30	$^{\circ}$ C/RH
	Ambient temperature	$^{\circ}$ C
	Storage temperature	$^{\circ}$ C
Installation	Terminal	
	Cross-section of conductors (top/bottom)	mm ²
	Torque	Nm
	Screwdriver	
	Mounting	
	Mounting position	
	Supply	
Dimension and weight	Mounting dimensions acc. To DIN 43880	
	Pole dimensions (H x D x W)	mm ²
	Pole weight	g
Combinations with aux. elements	Auxiliary contact	
	Signal contact/auxiliary switch	
	Shunt trip	
	Undervoltage release	
	Motor operating device	

Technical Features Table for miniature circuit-breakers S 200 Series



S 200	S 200 M	S 200 P
IEC/EN 60898-1, IEC/EN 60947-2 UL 1077, CSA 22.2 No. 235	IEC/EN 60898-1, IEC/EN 60947-2 -	IEC/EN 60898-1, IEC/EN 60947-2 UL 1077, CSA 22.2 No. 235
1P, 2P, 3P, 4P, 1P+N, 3P+N		
B, C, D, K, Z		
0.5...63 A		0.2...63 A
50 / 60 Hz		
250 V AC (phase to ground), 440 V AC (phase to phase)		
III		
3		
1P: 230/400 V AC, 1P+N: 230, 2P...4P: 400 V AC, 3P+N: 400 V AC		
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		
12 V AC - 12 V DC		
6 kA	10 kA	≤ 25 A: 25 kA > 25 A: 15 kA
3		
4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000m)		
2 kV (50 / 60 Hz, 1 min.)		
B, C, D : 30 °C		
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 cycle (2s - ON, 28s - OFF, In > 32A)		
1P: 230 V AC, 1P+N: 230 V AC, 2...4P: 400 V AC, 3P+N: 400 V AC		
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		
12 V AC - 12 V DC		
10 kA	≤ 40 A: 15 kA 50, 63 A: 10 kA	≤ 25 A: 25 kA ≥ 32 A: 15 kA
7.5 kA	≤ 40 A: 11.2 kA 50, 63 A: 7.5 kA	≤ 25 A: 12.5 kA ≤ 32...40 A: 11.2 kA
4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)		
2 kV (50 / 60Hz, 1 min.)		
B, C, D: 55°C; K, Z: 20 °C		
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 cycle (2s - ON, 28s - OFF, In > 32A)		
480Y / 277 V AC	-	480Y / 277 V AC
6 kA	-	10 kA
-	-	-
Suppl. prot. for general use. Application Codes: TC2, OLO, SC: U1	-	Suppl. prot. for general use. Application Codes: TC2, OLO, SC: U1
B, C, D: 25°C; K, Z: 25 °C	-	B, C, D: 25°C; K, Z: 25 °C
6,000 ops. (AC), 6,000 ops. (DC); 1 cycle (1s - ON, 9s - OFF)		
Insulation group I, RAL 7035		
Insulation group II, black, sealable		
Marking on toggle, I ON / 0 OFF		Marking on toggle (I ON / 0 OFF), Real CPI (red ON / green OFF)
IP20*, IP40 in enclosure with cover		
20,000 ops.		
30 g - 3 shocks - 11 ms		
5g - 20 cycles at 5...150...5 Hz with load 0.8I _n		
28 cycles with 55°C/90-96% and 25°C/95-100%		
-25 ... +55°C		
-40 ... +70°C		
Failsafe bi-directional cylinder-lift terminal		
25 mm ² / 25 mm ²		
2.8 Nm		
No. 2 Pozidrive		
On DIN rail 35 mm acc. to EN 60715 by fast clip		
any		
optional		
Mounting dimension 1		
88 x 69 x 17.5		
ca. 125 g		
Yes		
Yes		
Yes		
Yes		
Yes		

Technical Features Table for residual current circuit breakers (RCCBs) FH 200 & F 200 Series

General Data		
Standards		
Electrical features		
Type (wave form of the earth leakage sensed)		
Poles		
Rated current I_n		A
Rated sensitivity $I_{\Delta n}$		A
Rated voltage U_e	IEC UL/CSA	V V
Insulation voltage U_i		V
Max. operating voltage of circuit test	IEC UL/CSA	V V
Min. operating voltage of circuit test		V
Rated frequency		Hz
Rated conditional short-circuit current $I_{nc} = I_{\Delta c}$	SCPD - fuse gG 100 A	kA
Rated residual breaking capacity $I_{\Delta m} = I_m$		kA
Rated impulse withstand voltage (1.2/50) U_{imp}		kV
Dielectric test voltage at ind. freq. for 1 min.		kV
Surge current resistance (wave 8/20)		A
Mechanical features		
Toggle		
Contact position indicator (CPI)		
Electrical life		
Mechanical life		
Protection degree	housing	
	terminals	
Tropicalization acc. to IEC/EN 60068-2	humid heat	°C/RH
	constant climatic conditions	°C/RH
	variable climatic conditions	°C/RH
Ambient temperature (with daily average $\leq +35$ °C)	IEC	°C
Storage temperature		°C
Installation		
Terminal type		
Terminal size top/bottom for cable	IEC UL/CSA	mm ²
Terminal size top/bottom for busbar	IEC UL/CSA	mm ²
Tightening torque	IEC UL/CSA	N*m
Tool	IEC	
Mounting	UL/CSA	
Connection		
Dimensions and weight		
Dimensions (H x D x W)	2P	mm
	4P	mm
Weight	2P	g
	4P	g
Combination with auxiliary elements		
Combinable with:	auxiliary contact	
	with auxiliary signal contact/auxiliary switch	
	elements shunt trip	
	undervoltage release	

Technical Features Table for residual current circuit breakers (RCCBs) FH 200 & F 200 Series



FH 200		F 200	
IEC/EN 61008			
AC		AC	A
2P, 4P		2P, 4P (for 125 A only 4P)	
25, 40, 63		16, 25, 40, 63, 80, 100, 125	
30, 100, 300		10, 30, 100, 300, 500	
230/400 - 240/415 V AC 480Y/277 (up to 63 A)			
500			
254 (440 for 125 A); 440 for F 200 left neutral 277 (up to 63 A); 480 for F 200 left neutral 110 (185 for 125 A); 195 for F 200 left neutral			
50...60			
10 (for 125 A fuse is gG 125 A) 1 (1.25 for 125 A)			
4			
2.5			
250			
BLACK sealable in ON-OFF position not available		BLUE sealable in ON-OFF position yes	
10,000			
20,000			
IP4X			
IP2X			
28 cycles with 55/95... 100			
23/83 - 40/93 - 55/20			
25/95 - 40/95			
-5...+40		-25...+55	
-40...+70			
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)			
25/25			
10/10			
2.8			
Nr. 2 Pozidrive			
on DIN rail EN 60715 (35 mm) by means of fast clip device from top and bottom			
85 x 69 x 35			
85 x 69 x 70			
200			
350			
No		yes (no for 125 A)	
No		Yes	
No		yes (no for 125 A)	
No		yes (no for 125 A)	

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Technical Features Table for RCBOs DS201 Series

General Data		
Standards		
Electrical features		
Type (wave form of the earth leakage sensed)		
Poles		
Rated current I_n		A
Rated sensitivity $I\Delta n$		A
Rated voltage U_e		V
Insulation voltage U_i		V
Max. operating voltage of circuit test		V
Min. operating voltage of circuit test		V
Rated frequency		Hz
Rated breaking capacity acc. to IEC/EN 61009	ultimate I_{cn}	A
Rated residual breaking capacity $I\Delta m$		kA
Rated impulse withstand voltage (1.2/50) U_{imp}		kV
Dielectric test voltage at ind. freq. for 1 min.		kV
Thermomagnetic release characteristic	B: $3 I_n \leq I_m \leq 5 I_n$ C: $5 I_n \leq I_m \leq 10 I_n$	
Surge current resistance (wave 8/20)		A
Mechanical features		
Toggle		
Flag indicators		
Electrical life		
Mechanical life		
Protection degree	housing terminals	
Tropicalization	constant climatic conditions	°C/RH
acc. to IEC/EN 60068-2	variable climatic conditions	°C/RH
Reference temperature for setting of thermal element		°C
Ambient temperature (with daily average $\leq +35$ °C)		°C
Storage temperature		°C
Installation		
Terminal type		
Terminal size top/bottom for cables		mm ²
Terminal size top/bottom for busbar		mm ²
Tightening torque top/bottom		N*m
Mounting		
Connection		
Dimensions and weight		
Dimensions (H x D x W)		mm
Weight		g
Combination with auxiliary elements		
Combinable with:	auxiliary contact	
	signal contact/auxiliary switch	
	shunt trip	
	undervoltage release	

Technical Features Table for RCBOs DS201 Series



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DS201	DS201 M
IEC / EN 61009	
AC	
1P+N	
1...40	
30...300	
230-240	
500	
254	
110	
50...60	
6000	10,000
6	10
4	
2.5	
Yes	
Yes	
250	
black sealable in ON-OFF position	
differential trip indicator (blue)	
contact position indicator (green/red)	
10000	
20000	
IP4X	
IP2X	
23/83 - 40/93 - 55/20	
25/95 - 40/95	
30	
-25...+55	
-40...+70	
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)	
25/25	
10/10	
2.8	
on DIN rail EN 60715 (35 mm) by means of fast clip device	
from top and bottom	
85x69x35	
239	
Yes	
Yes	
Yes	
Yes	