

# Specifications

General Data		Mechanical Data	
Poles	1, 2, 3, 4, 1+N, 3+N	Housing	Insulation group II, RAL 7035
Tripping characteristics	B, C, D	Indicator window	None
Rated current ( $I_n$ )	0.5...63 A	Protection degree per EN 60529	IP20—IP40 in enclosure with cover
Rated frequency (f)	50/60 Hz	Mechanical endurance	20,000 operations
Rated insulation voltage $U_i$ per IEC/EN 60664-1	250 V AC (phase to ground), 440 V AC (phase to phase)	Shock resistance per IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
Overvoltage category	III	Vibration resistance per IEC/EN 60068-2-6	5g - 20 cycles at 5...150...5 Hz with load 0.8In
Pollution degree	2	Environmental	
Data per IEC/EN 60898-1			
Rated operational voltage ( $U_e$ )	1-pole	230/400V AC	Environmental conditions (damp heat) per IEC/EN 60068-2-30
	1-pole +N	230V AC	28 cycles with 55°C/90-96% and 25°C/95-100%
	2-, 3-, 4-pole 3-pole +N	400V AC	Ambient temperature ★
Highest supply or utilization voltage ( $U_{max}$ )	AC	1-pole	-25 ... +55°C
		1-pole+N	Storage temperature
		2-, 3-, 4-, 3-pole+N	-40 ... +70°C
	DC★	1-pole	Installation
		2-pole	Terminal
Min. operating voltage		12V AC, 12V DC	Cage terminal
Rated short-circuit capacity ( $I_{cn}$ )	188-J	10 kA	Cross-section of wire solid, stranded
	188-K	6 kA	0.75...25 mm <sup>2</sup>
Energy limiting class (B, C up to 40 A)		3	Cross-section of wire flexible
Rated impulse withstand voltage $U_{imp.}$ (1.2/50μs)		4 kV (test voltage 6.2kV at sea level, 5kV at 2,000m)	0.75...16 mm <sup>2</sup>
Dielectric test voltage		2 kV (50 / 60Hz, 1 min.)	Tightening torque
Reference temperature for tripping characteristics		B, C, D: 30°C	2.0 N•m
Electrical endurance		$I_n < 30A$ : 20,000 ops (AC)	Screwdriver
1 cycle (2s - ON, 13s - OFF, $I_n \leq 32A$ ), 1 cycle (2s - ON, 28s - OFF, $I_n > 32A$ )		$I_n \geq 30A$ : 10,000 ops. (AC); 1,000 ops. (DC);	DIN Rail (EN 60715, 35mm) with fast clip
Approximate Dimensions and Weight			
Pole dimensions (H x D x W)		85 x 69 x 17.5 mm	Mounting
Pole weight		115 g (4.4 oz.)	Any
Supply		Optional	Mounting position
Combination with aux. elements			
Auxiliary contact		Yes	Auxiliary contact
Signal contact		Yes	Signal contact
Shunt trip		Yes	Shunt trip

★ IEC DC ratings self-declared.

## Power Loss Due to Current

Rated Current [A]	Power Loss Per Pole [W]	Rated Current [A]	Power Loss Per Pole [W]
			Power Loss Per Pole [W]
0.5	1.4		2.3
1	1.4		2.5
2	1.8		2.5
3	1.5		3.2
4	1.8		3.7
6	2.0		4.8
8	1.5		4.5
10	2.1		5.2

★ Refer to the Ambient Temperature Derating tables.

## Zero-stack Derating

The installation of several miniature circuit breaker side by side with rated current on all poles requires a correction factor to the rated current (not required if spacers are used).

No. of Adjacent Devices	Factor
1	1
2,3	0.9
4,5	0.8
≥6	0.75