

**Datasheet: MINIATURE CIRCUIT BREAKER (MCB) 1+N ON 1MW, SERIES AMPARO**



**SCHRACK-INFO**

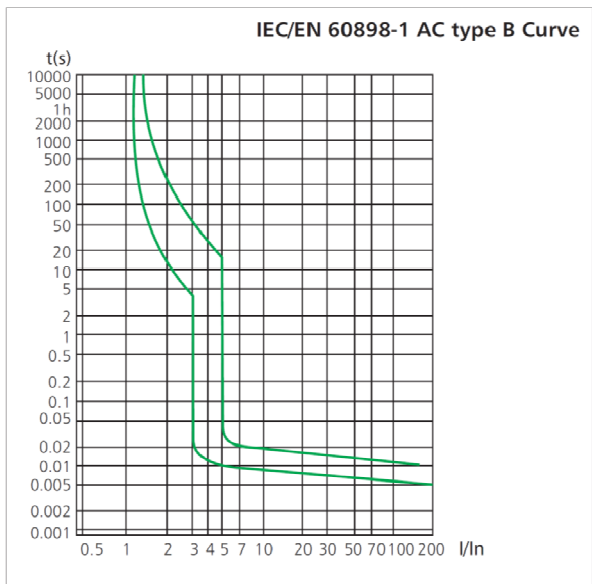
- Singlepole with switchable N-Conductor on 1MW
- Terminal cross-section: 1-16mm<sup>2</sup>
- Snap-on mounting for DIN rail EN 50 022
- Contact position indicator

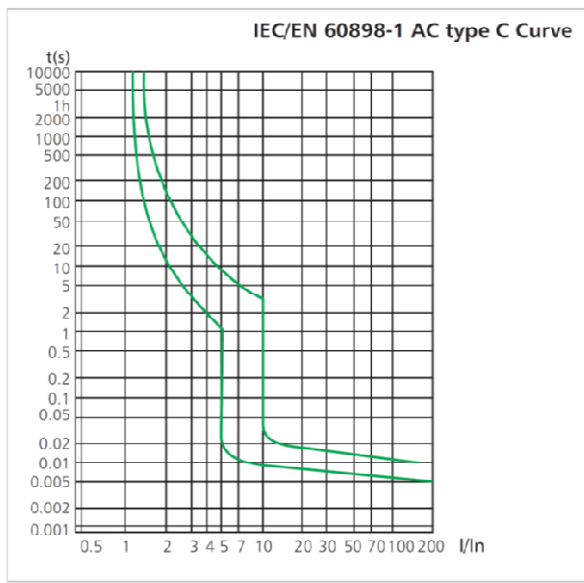
**Technical Data**

Standards:	IEC/EN 60898-1
Rated voltage (AC):	230/240V -
Rated frequency (AC):	50/60Hz
Insulation voltage U <sub>i</sub>	500V
Rated current I <sub>n</sub>	6, 10, 13, 16, 20, 25, 32A
Tripping characteristics:	B, C
Rated breaking capacity:	4,5 kA acc. to IEC/EN 60898,
Energy limiting class	3
Rated impulse withstand voltage (1,2/50) U <sub>imp</sub>	4kV
Dielectric test voltage at ind. Freq. For 1 min.	2kV
Polution degree	2

Total powerloss at $I_n$	6A	4 W
	10A	4 W
	16A	7 W
	20A	7 W
	25A	7 W
	32A	7 W
Electrical endurance:	> 8.000 operating cycles	
Mechanical endurance:	> 20.000 operating cycles	
Protection degree	IP 20	
Reference temperature:	30°C	
Tripping temperature:	-5 °C to +40 °C	
Storage temperature:	-25 °C to +70 °C	
Terminal connection type	Pin-type busbar	
Terminal cross-section:	16mm <sup>2</sup>	
Terminal tightening torque:	2 Nm	
Mounting:	on DIN rail EN 60715 (35mm)	
	by means of fast clip device	

### Tripping curves





**■ Influence of ambient temperature on tripping current**

	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	55°C	60°C
6A	7,20	6,90	6,60	6,30	6,00	5,70	5,40	5,25	5,10
10A	12,00	11,50	11,00	10,50	10,00	9,50	9,00	8,75	8,50
13A	15,60	14,95	14,30	13,65	13,00	12,35	11,70	11,38	11,05
16A	19,20	18,40	17,60	16,80	16,00	15,20	14,40	14,00	13,60
20A	24,00	23,00	22,00	21,00	20,00	19,00	18,00	17,50	17,00
25A	30,00	28,75	27,50	26,25	25,00	23,75	22,50	21,88	21,25
32A	38,40	36,80	35,20	33,60	32,00	30,40	28,80	28,00	27,20

**■ Short-circuit selectivity**

Selectivity to Fuses characteristic gG/gL

		Power supply side: fuse characteristic gG/gL						
		$I_N$	20A	25A	36A	50A	63A	80A
Load side: MCB, series AM characteristic B. C	6A	0,5 kA	0,8 kA	1,9 kA	2,5 kA	4,5 kA <sup>a)</sup>	4,5 kA <sup>a)</sup>	4,5 kA <sup>a)</sup>
	10A		0,7 kA	1,4 kA	2,2 kA	3,2 kA	3,6 kA	4,5 kA <sup>a)</sup>
	13A		0,6 kA	1,3 kA	2,0 kA	2,8 kA	3,2 kA	4,5 kA <sup>a)</sup>
	16A			1,2 kA	1,8 kA	2,6 kA	3 kA	4,5 kA <sup>a)</sup>
	20A				1,5 kA	2,2 kA	2,5 kA	4,5 kA <sup>a)</sup>
	25A				1,3 kA	2,0 kA	2,2 kA	4,1 kA
	32A					1,7 kA	1,9 kA	3,8 kA


a) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

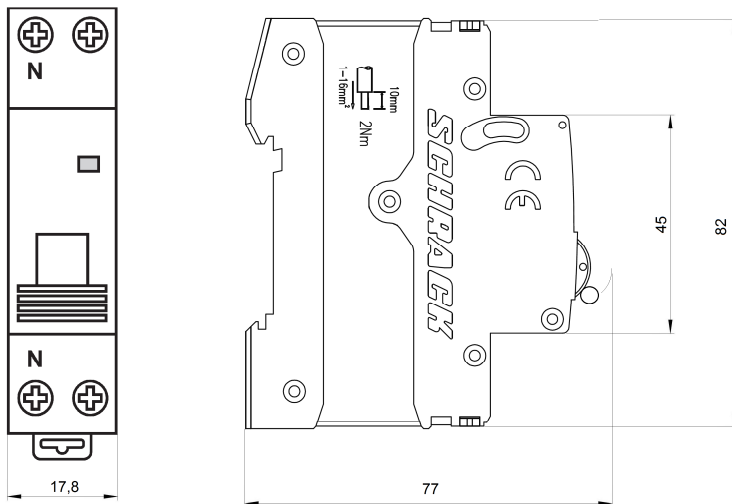
Selectivity to MCCB type MC1

		Power supply side: MCCB series MC1				
		40 A	50 A	63 A	80 A	100 A
Load side: MCB, series AM characteristic B	$I_N$					
	6A	1,2 kA	2 kA	2,5 kA	3 kA	4,5 kA <sup>a)</sup>
	10A	1,2 kA	1,5 kA	2 kA	2 kA	4 kA
	13A	1,1 kA	1,3 kA	1,7 kA	2 kA	3,5 kA
	16A	1 kA	1,2 kA	1,5 kA	2 kA	3 kA
	20A	0,8 kA	1,2 kA	1,5 kA	1,5 kA	3 kA
	25A	0,7 kA	1,2 kA	1,5 kA	1,5 kA	3 kA
32A		1,2 kA	1 kA	1,5 kA	2 kA	

		Power supply side: MCCB series MC1				
		40 A	50 A	63 A	80 A	100 A
Load side: MCB, series AM characteristic C	$I_N$					
	6A	1,2 kA	2 kA	2,5 kA	3 kA	4,5 kA <sup>a)</sup>
	10A	1,2 kA	1,5 kA	2 kA	2 kA	4 kA
	13A	1,1 kA	1,3 kA	1,7 kA	2 kA	3,5 kA
	16A	1 kA	1,2 kA	1,5 kA	2 kA	3 kA
	20A	0,8 kA	1,2 kA	1,5 kA	1,5 kA	3 kA
	25A	0,7 kA	1,2 kA	1,5 kA	1,5 kA	3 kA
32A		1,2 kA	1 kA	1,5 kA	2 kA	

a) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

 Dimensions:



▀ Articles:

**MCB, Miniature Circuit Breaker 4,5kA, 1+N on 1MW**

Description	Order no.
<b>Characteristic B</b>	
6A	AM418506--
10A	AM418510--
13A	AM418513--
16A	AM418516--
20A	AM418520--
<b>Characteristic C</b>	
6A	AM417506--
10A	AM417510--
13A	AM417513--
16A	AM417516--
20A	AM417520--
25A	AM417525--
32A	AM417532--