

■ Datasheet: Miniature circuit breaker (MCB), AMPARO series 10kA



■ SCHRACK-INFO

- Contact position indicator
- Lift and clamp terminals on both sides
- Terminal guide for secure connection
- Terminal cross-section: 1-25mm²
- Snap-on mounting for DIN rail EN 50 022

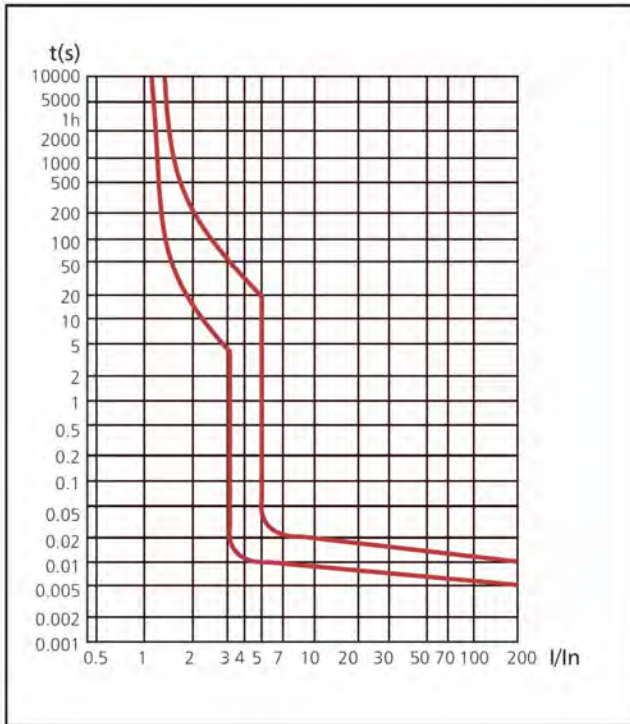
■ Technical data

Standards:	EN 60898-1 / IEC 60898-1
Rated voltage (AC)	230/400 - 240/415V
Rated frequency (AC)	50/60Hz
Rated current I _n	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63 A
Tripping characteristics:	B, C, D
Rated breaking capacity:	10 kA acc. to IEC/EN 60898
Energy limiting class	3
Rated impulse withstand voltage (1,2/50) U _{imp}	6kV
Dielectric test voltage at ind. Freq. For 1 min.	2kV
Pollution degree	2

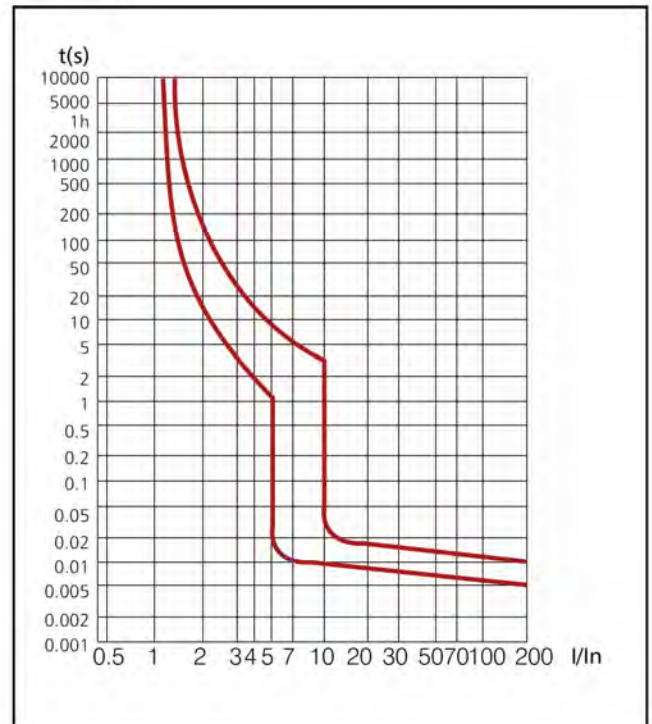
Total powerloss at I_n					
	1P	1+N	2P	3P	3+N
1A	2.0 W	4.0W	4.0W	6.0W	8.0W
2A	2.0 W	4.0W	4.0W	6.0W	8.0W
3A	2.0 W	4.0W	4.0W	6.0W	8.0W
4A	2.0 W	4.0W	4.0W	6.0W	8.0W
6A	2.0 W	4.0W	4.0W	6.0W	8.0W
10A	2.0 W	4.0W	4.0W	6.0W	8.0W
13A	3.5 W	7.0 W	7.0 W	10.5 W	14.0 W
16A	3.5 W	7.0 W	7.0 W	10.5 W	14.0 W
20A	4.0 W	7.0 W	7.0 W	11.0 W	14.0 W
25A	4.0 W	7.0 W	7.0 W	11.0 W	14.0 W
32A	4.0 W	7.0 W	7.0 W	11.0 W	14.0 W
40A	5.0 W	10.0 W	10.0 W	15.0 W	20.0 W
50A	5.0 W	10.0 W	10.0 W	15.0 W	20.0 W
63A	5.0 W	10.0 W	10.0 W	15.0 W	20.0 W
Internal resistance					
	2A	459.800mΩ			
	4A	94.007mΩ			
	6A	51.787mΩ			
	10A	9.989mΩ			
	16A	6.310mΩ			
	20A	3.832mΩ			
	25A	2.671mΩ			
	32A	2.009mΩ			
	40A	1.660mΩ			
	50A	1.226mΩ			
	63A	1.055mΩ			
Electrical endurance			> 4.000 operating cycles		
Mechanical endurance			> 20.000 operating cycles		
Protection degree			IP 20		
Reference temperature			30°C		
Tripping temperature			-5 °C to +40 °C		
Operating temperature			-25 °C to +70 °C		
Terminal connection type			Cable/ U-type busbar / Pin-type busbar		
Connection			From top and bottom		
Terminal cross-section			1 - 25 mm ²		
Terminal tightening torque			2.5 Nm		
Terminal size for busbar			10 mm ²		
Mounting			on DIN rail EN 60715 (35mm) by means of fast clip device		
Mounting position			Any		

Tripping curves

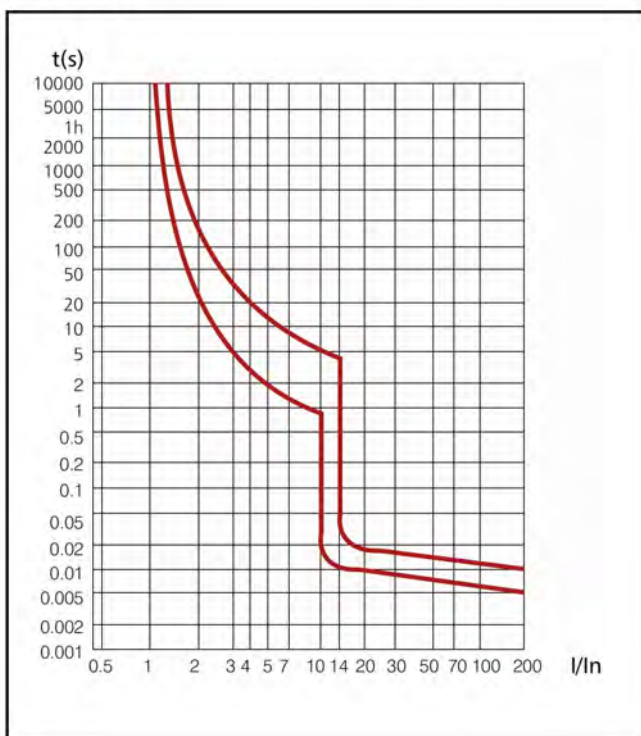
Characteristic B



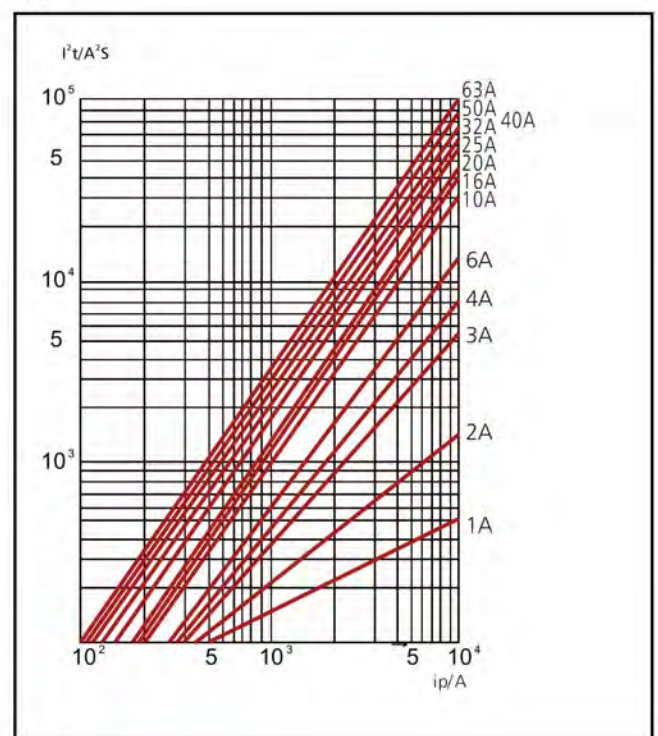
Characteristic C



Characteristic D



I^2t



 Influence of ambient temperature on tripping current

	- 35°C	- 30°C	- 20°C	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1A	1.30	1.26	1.23	1.19	1.15	1.11	1.05	1.00	0.96	0.93	0.88	0.83
2A	2.60	2.52	2.46	2.38	2.28	2.20	2.08	2.00	1.92	1.86	1.76	1.66
3A	3.90	3.78	3.69	3.57	3.42	3.30	3.12	3.00	2.88	2.79	2.64	2.49
4A	5.20	5.04	4.92	4.76	4.56	4.40	4.16	4.00	3.84	3.76	3.52	3.32
6A	7.80	7.56	7.38	7.14	6.84	6.60	6.24	6.00	5.76	5.64	5.28	4.98
10A	13.20	12.70	12.50	12.00	11.50	11.10	10.60	10.00	9.60	9.30	8.90	8.40
16A	21.12	20.48	20.00	19.20	18.40	17.76	16.96	16.00	15.36	14.88	14.24	13.44
20A	26.40	25.60	25.00	24.00	23.00	22.20	21.20	20.00	19.20	18.60	17.80	16.80
25A	33.00	32.00	31.25	30.00	28.75	27.75	26.50	25.00	24.00	23.25	22.25	21.00
32A	42.56	41.28	40.00	38.72	37.12	35.52	33.92	32.00	30.72	29.76	28.16	26.88
40A	53.20	51.20	50.00	48.00	46.40	44.80	42.40	40.00	38.40	37.20	35.60	33.60
50A	67.00	65.50	63.00	60.50	58.00	56.00	53.00	50.00	48.00	46.50	44.00	41.50
63A	83.79	81.90	80.01	76.86	73.71	70.56	66.78	63.00	60.48	58.90	55.44	52.29