

Description

Single pole high performance thermal circuit breaker, with push-to-reset tease free, trip-free snap action mechanism (R-type TO CBE to EN 60934). Designed for threadneck panel mounting and for applications with a high fault current switching requirement. Approved to CBE standard EN 60934 (IEC 60934).

Typical applications

Motors, transformers, solenoids, battery chargers, power supplies, appliances, machinery, extra low voltage systems.

Ordering information

Type No.	
4130	single pole thermal circuit breaker
Mounting	
G	threadneck panel mounting
Threadneck design	
2	M 12x1, knurled nut (bulk shipped)
4	M 12x1, hex nut and knurled nut (bulk shipped)
Number of poles	
1	single pole, thermally protected
Actuator configuration	
1	black push button
Terminal design	
K4	terminal M6x8 screw and washer bulk shipped
Characteristic curve	
M1	medium delay
Current ratings	
20... 70 A	
4130 - G 2 1 1 - K4 M1 - 20 A ordering example	

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
20	< 0.02	40	< 0.01
25	< 0.02	50	< 0.01
30	< 0.02	60	< 0.01
35	< 0.02	70	< 0.01

Approvals

Authority	Voltage ratings	Current ratings
VDE (EN 60934)	AC 240 V; DC 50 V	20...70 A
UL	AC 240 V; DC 50 V	20...70 A

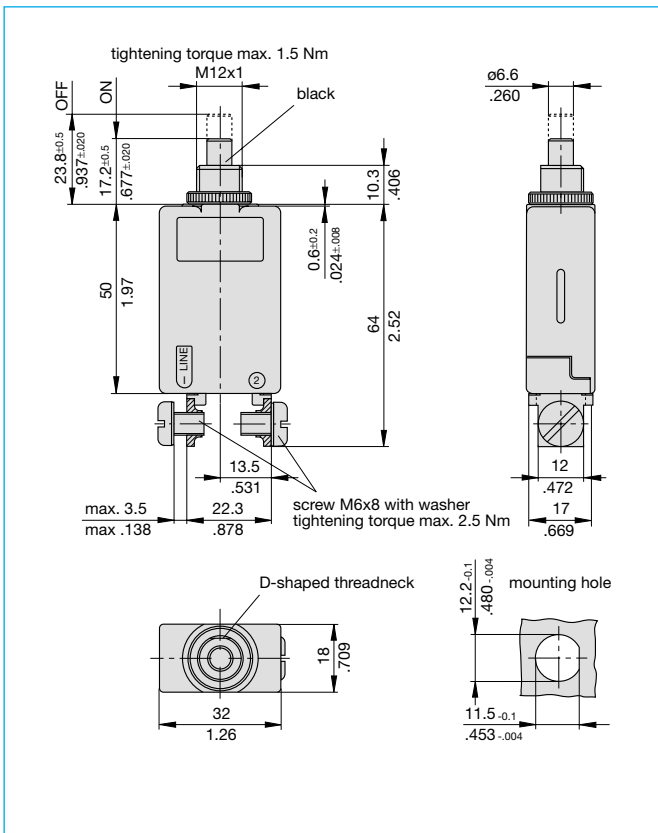


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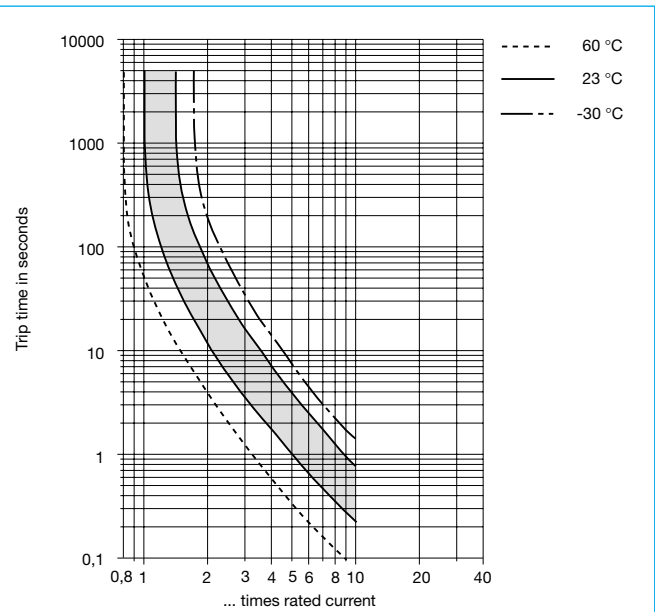
Technical data

Voltage rating	AC 240 V; DC 50 V	
Current rating range	20... 70 A	
Typical life	300 operations at $2 \times I_N$ (DC 50 V) 500 operations at $2 \times I_N$ (DC 28 V)	
Ambient temperature	-30...+60 °C (-22...+140 °F)	
Insulation co-ordination (IEC 60664)	rated impulse withstand voltage 2.5 kV	pollution degree 2 (reinforced insulation in the mounting area)
Dielectric strength operating area	test voltage AC 3,000 V	
Insulation resistance	> 100 MΩ (DC 500 V)	
Interrupting capacity I_{cn}	800 A	
Interrupting capacity (UL 1077)	I_N	U_N
	20...70 A	AC 240 V
	20...60 A	AC 120 V
	70 A	AC 120 V
	20...50 A	DC 50 V
	60...70 A	DC 50 V
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00	
Vibration	8 g (57-500 Hz) ±0.61 mm (10-57 Hz) to IEC 60068-2-6, test Fc 10 frequency cycles/axis	
Shock	25 g (11 ms) to IEC 60068-27, test Ea	
Corrosion	96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka	
Humidity	240 hours at 95 % RH to IEC 60068-2-3, test Ca	
Mass	approx. 55 g	

Dimensions



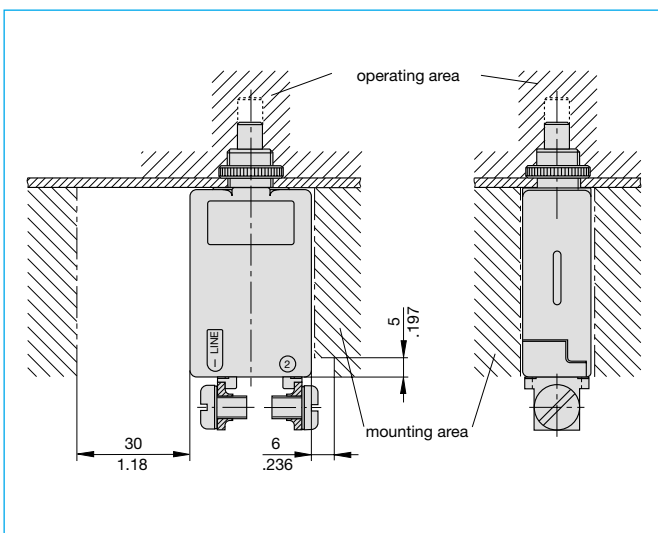
Typical time/current characteristics



The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section 9 – Technical information.

Ambient temperature °F	-22	-4	+14	+32	+73.4	+104	+122	+140
°C	-30	-20	-10	0	+23	+40	+50	+60
Derating factor	0.68	0.76	0.84	0.92	1	1.08	1.16	1.24

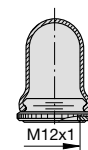
Installation drawing



Accessories

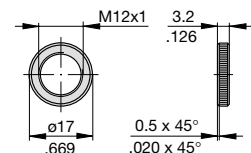
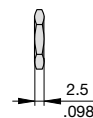
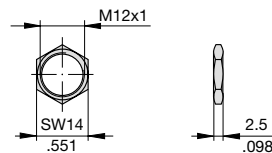
Hex nut with splash cover, black
X 201 296 01 without O ring (IP64)
X 200 801 03 with O ring (IP66)
 Hex nut with splash cover, transparent

Water splash cover, transparent with knurled nut and O ring (IP64)
X 210 663 01

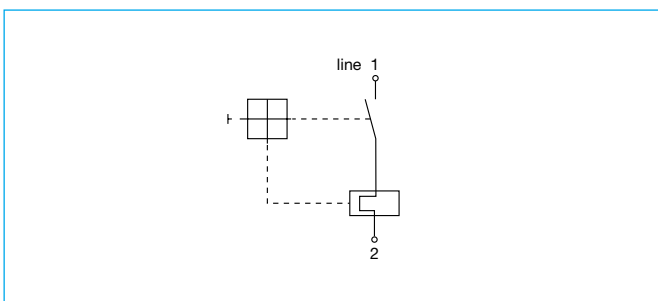


Separate hardware
Hex nut Y 300 116 02

Knurled nut Y 302 065 01



Internal connection diagram



This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.