② 国 小 A Thermal Overcurrent Circuit Breaker 1140-...

Description

Miniaturised single pole thermal circuit breaker with push-to-reset tease-free, trip-free, snap action mechanism (R-type TO CBE to EN 60934). Available in versions for panel mounting, snap-in or threadneck, or as an integral type. For lower current ratings see types 104, 105, 106. Approved to CBE standard EN 60934 (IEC 60934).

Upon request, the 1140 in combination with the C14 appliance inlet is also available as completely assembled power entry module (optionally with or without line filter).

Typical applications

Motors, transformers, solenoids, hand-held machines and appliances.

Preferred types

Preferred types	Standard current ratings (A)												
	4 5 6 7 8 9 10 11 12 13 14 15 16												
1140-G111-P1M1-	х	х	х	х	х	х	х	х	х	х	х	х	х

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)		
3.5	0.06	10	< 0.02		
4	0.04	11	< 0.02		
5	0.03	12	< 0.02		
6	0.02	13	< 0.02		
7	< 0.02	14	< 0.02		
8	< 0.02	15	< 0.02		
9	< 0.02	16	< 0.02		



Compliances



Approvals

Authority	Standard	Rated voltage	Current ratings
VDE	IEC/EN 60934	AC 240 V DC 48 V	3.5 A16 A 3.5 A16 A
UL	UL 1077	AC 250 V DC 50 V	3.5 A16 A 3.5 A16 A
CSA	C22.2 No 235	AC 250 V DC 50 V	3.5 A16 A 3.5 A16 A

Ordering information

Ty	ре	No.

1140 single pole thermal circuit breaker

Mounting

E2 integral mounting

F1 snap-in panel mounting

G0 threadneck mounting without nuts (combined with XR38 power entry module)

G1 threadneck panel mounting 3/8-27UNS with hex nut and knurled nut (hardware bulk shipped with 5 pcs plus)

Number of poles

1 1-pole protected

Actuator style

black push button
Terminal design

P1 blade terminals A6.3-0.8 (QC .250)

Characteristic curve
M1 medium delay

Current ratings 3.5...16 A

1140 - F1 1 1 - P1 M1 - 10 A = ordering example

Please be informed that we have minimum ordering quantities to be observed

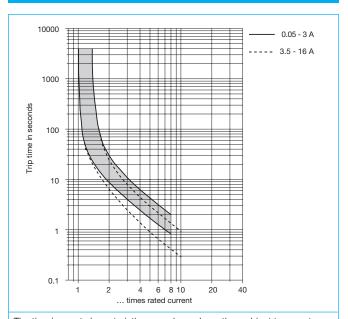
All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.

❷ ছিন্দিঐ Thermal Overcurrent Circuit Breaker 1140-...

Technical data

Ear further d	otoilo place	oooi http:/	/ununu	do/ti o					
Voltage rating	•	AC 240 V; DC 48 V (UL: AC 250 V; DC 50 V)							
Current rating	S	3.516 A							
Typical life AC + DC	3.58 A 916 A		ions at 2 x I _N ions at 2 x I _N						
Ambient temp	erature	-20+60 °	C (-4+140	°F) T 60					
Insulation co- (IEC 60664 ar		rated impu withstand v 2.5 kV reinforced	voltage c	oollution legree ! operating area					
Dielectric stre (IEC 60664 ar operating a	nd 60664A)		test voltage AC 3,000 V						
Insulation resi	stance	> 100 MΩ	(DC 500 V)						
Rupture capacity I _{cn}		3.58 A 916 A	8 x I _N 120 A						
Rupture capa (UL 10777)	city	I _N 3.516 A 3.516 A		2,000 A 2,000 A					
Degree of pro (IEC 60529/D		operating a terminal ar							
Vibration		10 g (57-500 Hz) ± 0.76 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis							
Shock		25 g (11 ms) to IEC 60068-2-27, test Ea							
Corrosion		96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka							
Humidity			240 hours at 95 % RH to IEC 60068-2-78, test Cab						
Mass		approx. 10	g						

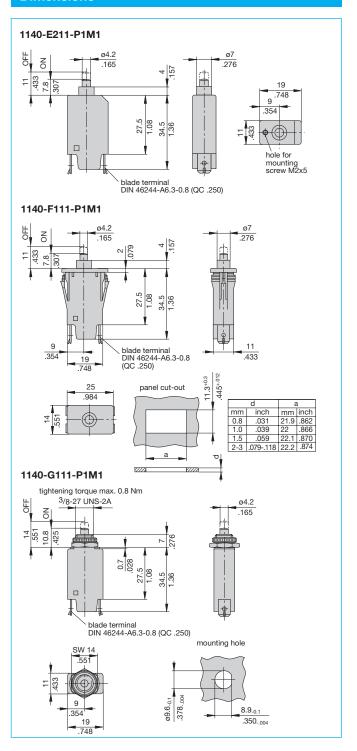
Typical time/current characteristics at +23 °C/+73.4 °F



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 Technical information.

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

Dimensions

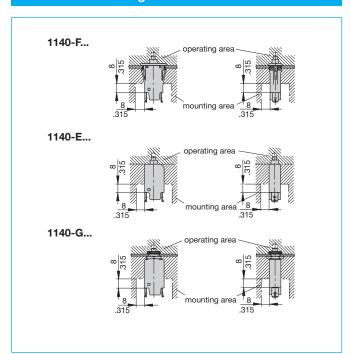


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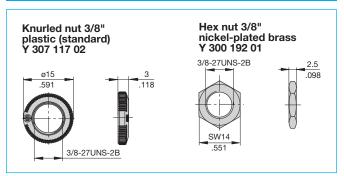
This is a metric design and millimeter dimensions take precedence (mm)inch)

❷ E TA® Thermal Overcurrent Circuit Breaker 1140-...

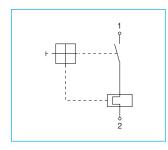
Installation drawings



Accessory



Internal connection diagram



Accessory



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This is a metric design and millimeter dimensions take precedence (mm) inch)

Description

Miniaturised double pole thermal circuit breaker with push-to-reset tease-free, trip-free, snap action mechanism (R-type TO CBE to EN 60934). Threadneck panel mounting. Suitable for line and neutral switching - the thermal actuator operating on one pole simultaneously opens both poles under overload conditions. Approved to CBE standard EN 60934 (IEC 60934).

Upon request, the 1140 in combination with the C14 appliance inlet is also available as completely assembled power entry module (optionally with or without line filter).

Typical applications

Motors, transformers, solenoids, hand-held machines and appliances. Especially suited to AC duties where the correct orientation of line/neutral is not known/cannot be guaranteed.

Ordering information

Туре	No.									
1140	doı	double pole threadneck panel mounting								
	Мо	unting								
	G0	threadneck mounting without nuts (combined with XR38								
		power entry module)								
	G1	G1 threadneck panel mounting 3/8-27UNS, with hex nut and								
		knurled nut (hardware bulk shipped with 5 pcs plus)								
		Number of poles								
		5 double pole, 1-pole protected								
		Actuator style								
		1 black push button								
		Terminal design								
		P7 blade terminals DIN 46244-C (QC 2x.110)								
		Characteristic curve								
		M1 medium delay								
		Current ratings								
		0,0516 A								
1140 -	- G1	5 1 - P7 M1 - 16 A ordering example								

Preferred types

Preferred types	Standard current ratings (A)											
	0.5 1 1.5 2 3 4 5 6 8 10 12						15					
1140-G151-P7M1	х	х	х	х	х	х	х	х	х	х	х	х



Compliances



Approvals

Authority	Standard	Voltage ratings	Current ratings
VDE	IEC/EN 60934	AC 240 V DC 48 V	0.05 A16 A 0.05 A16 A
UL	UL 1077	AC 250 V DC 50 V	0.05 A16 A 0.05 A16 A
CSA	C22.2 No 235	AC 250 V DC 50 V	0.05 A16 A 0.05 A16 A

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❷ 国示风 Thermal Overcurrent Circuit Breaker 1140-... (2-pole)

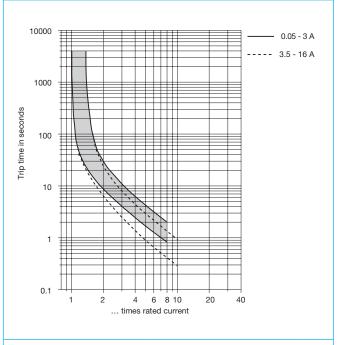
Technical data

For further de	tails please	see chapter	: Technical	Information			
Voltage rating	•	AC 240 V; DC 48 V (UL: AC 250 V; DC 50 V)					
Current ratings	3	0.0516 A					
Typical life AC + DC	0.053 A 3.58 A 916 A		ons at 2 x I _N , ons at 2 x I _N , ons at 2 x I _N ,	inductive			
Ambient temp	erature	-20+60 °C	(-4+140 °F	F) T 60			
Insulation co-d (IEC 60664 an		rated impuls withstand vo 2.5 kV reinforced in	oltage de 2	ollution egree perating area			
Dielectric strength (IEC 60664 and 60664A) operating area pole/pole		test voltage AC 3,000 V AC 1,500 V					
Insulation resis	stance	> 100 MΩ (DC 500 V)					
Rupture capacity I _{cn}		0.053 A 3.58 A 916 A	6 x I _N 8 x I _N 120 A				
Rupture capac (UL 1077)	city	I _N 0.0516 A 0.0516 A	U _N DC 50 V AC 250 V	2,000 A 2,000 A			
Degree of prot (IEC 60529/DII		operating are					
Vibration		10 g (57-500 Hz) ± 0.76 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis					
Shock		25 g (11 ms) to IEC 60068-2-27, test Ea					
Corrosion		96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka					
Humidity		240 hours at 95 % RH to IEC 60068-2-78, test Cab					
Mass		approx. 13 g	J				

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
0.05	345	1.8	0.3
0.06	240	2	0.3
0.08	142	2.5	0.2
0.1	88	3	0.1
0.2	24	3.5	0.08
0.3	9.9	4	0.07
0.4	5.9	5	0.05
0.5	3.7	6	0.04
0.6	2.2	7	< 0.02
0.7	1.9	8	< 0.02
0.8	1.4	10	< 0.02
1	0.9	12	< 0.02
1.2	0.6	15	< 0.02
1.5	0.5	16	< 0.02

Typical time/current characteristics at +23 °C/+73.4 °F



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 Technical information.

Ambient temperature °F °C		+14 -10		+73.4 +23			
Derating factor	0.76	0.84	0.92	1	1.08	1.16	1.24

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