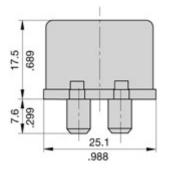


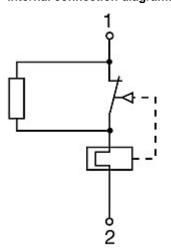
Type: 1160



Dimensions



Internal connection diagrams



Thermal circuit breaker, with controlled self-resetting mechanism, specially suited to installation in inaccessible locations. Under overload conditions the circuit breaker contacts will open to protect the load circuit. A low current excitation circuit ensures that the contacts remain open thereby avoiding the hazards of automatic reset operation. The circuit breaker is reset by switching off the supply circuit for a short period. Class 2 device, contacts stay open until voltage is removed. Type II to SAE J 553.

Voltage rating:

• DC 12 V

Current ratings:

from 12 A to 30 A

Number of poles:

single pole

Mounting method:

socket

Terminal design:

blade terminals

Actuation:

without actuation

Auxiliary contacts:

without auxiliary contacts

Water splash protection:

without water splash protection

Illumination:

without illumination

Typical life:

300 operations at 2 x I_N

Interrupting capacity I_{cn}:

200 A, L/R = 2.5 ms

Description

Thermal circuit breaker, with controlled self-resetting mechanism, specially suited to installation in inaccessible locations. Under overload conditions the circuit breaker contacts will open to protect the load circuit. A low current excitation circuit ensures that the contacts remain open thereby avoiding the hazards of automatic reset operation. The circuit breaker is reset by switching off the supply circuit for a short period. Class 2 device, contacts stay open until voltage is removed. Type II to SAE J 553.

Typical applications

Automotive and marine extra low voltage wiring systems and components, battery powered appliances.

Ordering information		
Type I	No.	
1160	single pole plug-in type	
	Design standard	
	02 standard version 12 V	
	Current ratings	
	12, 15, 20, 30 A	
1160 -	02 - 12A ordering example	

Standard current ratings and typical voltage drop values			
Current rating (A)	Voltage drop (mV)		
12	< 150		
15	< 150		
20	< 150		

< 150

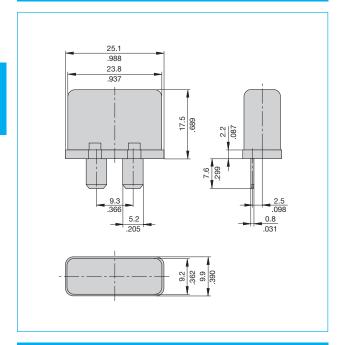


Technical data			
V 10	DO 10 V		
Voltage rating	DC 12 V		
Current ratings	1230 A		
Typical life	300 operations at 2 x I _N		
Ambient temperature	-30+60 °C (-22+140 °F)		
Holding current	< 0.6 A		
Reset time at 23°C after 5 s of load with U_N	< 35 sec		
Interrupting capacity (o-o-o)	200 A, L/R = 2.5 ms		
Degree of protection (IEC 60529/DIN 40050)	housing area IP54 terminal area IP00		
Vibration	5 g (57-500 Hz) ± 0.38 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 60068-2-3, test Ca		
Mass	approx. 6 g		

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図目子 Thermal Automotive Circuit Breaker 1160-...

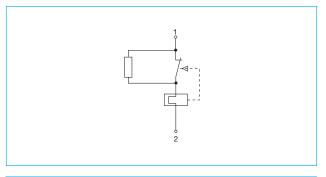
Dimensions



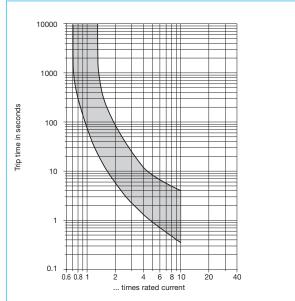
Accessories

Sockets available to special order.

Internal connection diagram



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 9 - Technical information.

 -4
 +14
 +32
 +73.4
 +104
 +122
 +140

 -20
 -10
 0
 +23
 +40
 +50
 +60

 0.76
 0.84
 0.92
 1
 1.08
 1.16
 1.24
Ambient temperature °F Derating factor 0.76 0.84 0.92 1

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