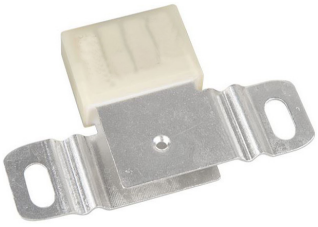
Themal Link Fuses

RoHS Compliant



Description

Alloy Thermal-Link / Alloy Thermal Cutoff (MPATCO) is defined as a non-resettable protective device functioning one time only. It is widely used in electrical equipment. Normally, thermal element is jointed to the two electrode leads. Under abnormal conditions, when the temp. reaches to the fusing temp. of MPDC-ATCO, the thermal element melts and quickly retracts to the two electrode lead ends with the aid of the flux resin and disconnects the circuit completely.

Applications

- EV Battery Modules
- Automatic Electronics

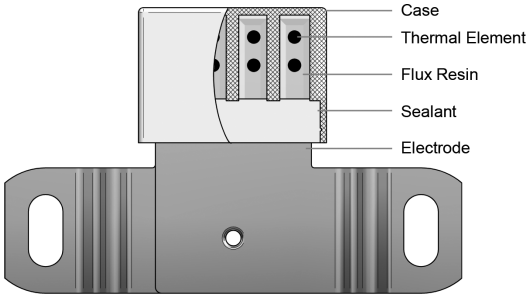
Features

- Non-Resettable
- High Accuracy of Functioning Temp.

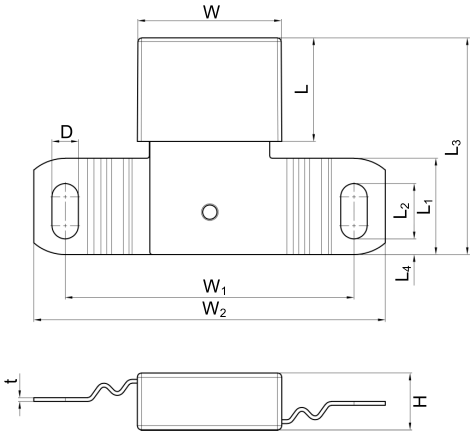
Customization

- Rated Functioning Temp.
- Shape of Electrode Leads

Structure Diagram



Diagram



L	L1	L2	L3	L4	W	W1	W2	D	H	t
21 ±0.5	10 ±0.5	11.5 ±0.5	45.5 ±2	3.25 ±0.5	30 ±0.5	60 ±2	73 ±2	5.5 ±0.2	11.8 ±0.5	0.8 ±0.05

Dimensions : Millimetres

Glossary

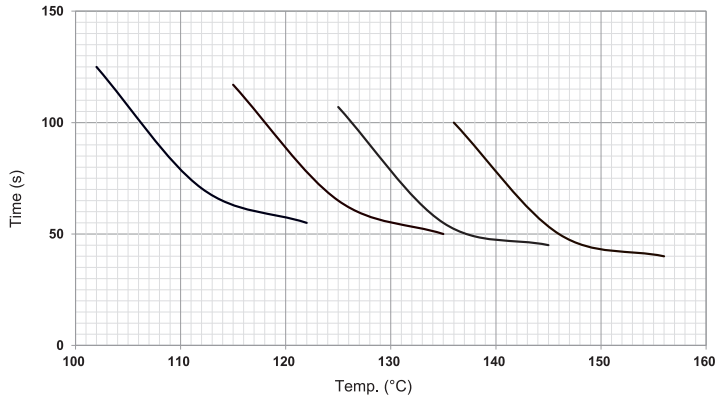
Item	Description
TCO	**Thermal-Link** A non-resettable device incorporating a THERMAL ELEMENT which will open a circuit once only when exposed for a sufficient length of time to a temperature in excess of that for which it has been designed.
ATCO	**Alloy Thermal-Link** Alloy type Thermal-Link, Alloy is thermal element.
DC-ATCO	**DC-Alloy Thermal-Link** Direct Current Alloy Thermal-Link.
Tf	**Rated Functioning Temp.** The temperature of the Thermal-Link which causes it to change the state of conductivity with a detection current up to 10 mA as the only load. Tolerance: T_f 0 / -10°C (GB 9816, EN 60691, K60691). Tolerance: T_f ± 7°C (J60691).
Fusing Temp.	The temperature of the Thermal-Link which causes it to change its state of conductivity is measured with silicone oil bath in which the temperature is increased at the rate of 0.5 °C to 1 °C / minute, with a detection current up to 10 mA as the only load.
T_h	**Holding Temp.** The Maximum temperature at which a Thermal-Link will not change its state of conductivity when conducting rated current for 168 hours.
T_m	**Maximum Temp. Limit** The temperature of the Thermal-Link stated by the manufacturer, up to which the mechanical and electrical properties of the Thermal-Link having changed its state of conductivity, will not be impaired for a given time.
I_{min}	**Minimum Breaking Current** The minimum current that Fuse requires after the Alloy of Thermal-Link opens in the circuit.
I_r	**Rated Current** The current used to classify a Thermal-Link, which is the maximum current that Thermal-Link allows to carry and is able to cut off the circuit safely.
U_r	**Rated Voltage** The voltage used to classify a Thermal-Link, which is the maximum voltage that Thermal-link allows to carry and is able to cut off the circuit safely.

Specifications

Part Number	T_f	Fusing Temp.	T_h	T_m	I_r	U_r	UL Approval
	(°C)	(°C)	(°C)	(°C)	(A)	(V)	
MPATCO-TS102-RHZ	102	98 ±3	57	180	100	DC 100	-
MPATCO-TS115-RHZ	115	111 ±3	70				-
MPATCO-TS125-RHZ	125	121 ±3	80				√
MPATCO-TS136-RHZ	136	132 ±3	91				√

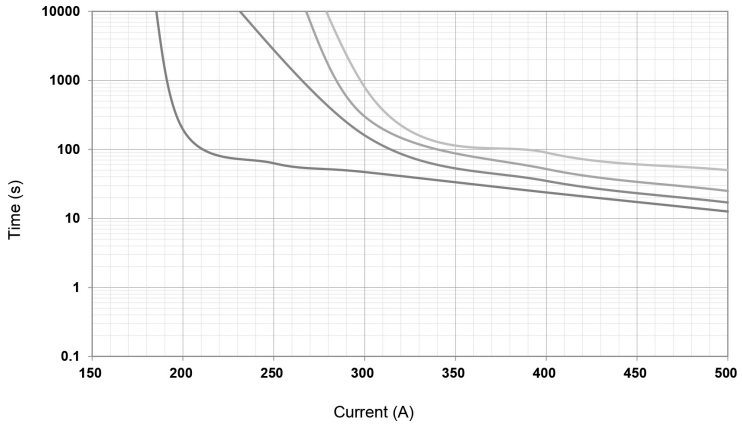
Product Current-Time Curve

The functioning temperature time curve of Alloy Thermal-Link in different Temp. oil bath.



Product Current-Time Curve

This is an illustrated curve, describing the opening time at Multi-times rated current in the condition of the room Temp. 25°C.



Part Number Table

Description	Part Number
Thermal Link Fuse, 100A, 100V DC, 102ºC	MPATCO-TS102-RHZ
Thermal Link Fuse, 100A, 100V DC, 115ºC	MPATCO-TS115-RHZ
Thermal Link Fuse, 100A, 100V DC, 125ºC	MPATCO-TS125-RHZ
Thermal Link Fuse, 100A, 100V DC, 136ºC	MPATCO-TS136-RHZ