Themal Link Fuses
DC Alloy

RoHS Compliant

Description

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

Applications

- Battery Cooling Systems
- Precharged Resistors
- Automotive Air-Conditioners
- Heaters

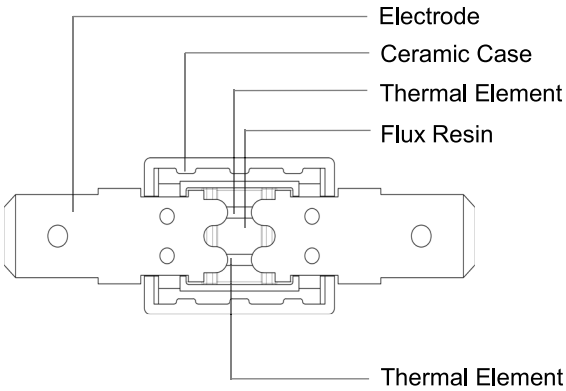
Features

- 0 to 450V DC / 0 to 600V AC Operating Voltage
- High Accuracy of Functioning Temp.
- Ceramic Case
- Non-Resettable

Customization

- Rated Functioning Temp.
- The Shape of Electrode Leads

Structure Diagrams



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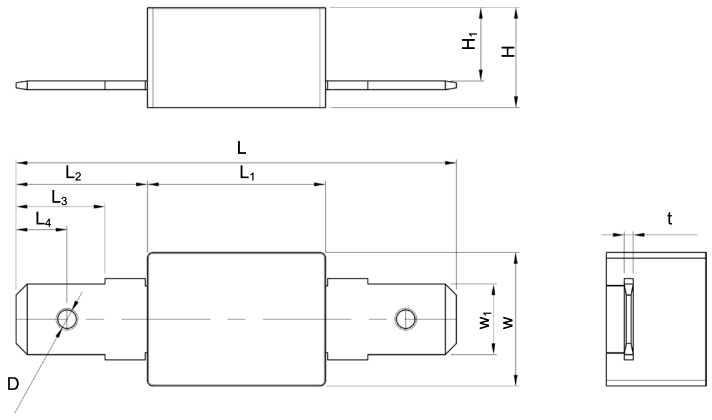
Glossary

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 temp. 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.
T_f	**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.	**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.

Dimensions



Dimensions : Millimetres

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multicomp PRO

L	L1	L2	L3	L4	W	W1	H	H1	t	D
39.5 ±2	16 ±1	11.75 ±0.3	7.95 ±0.3	4.55 ±0.2	12 ±1	6.35 ±0.2	9 +0.5 -0.0	6 +1 -0	0.8 ±0.05	1.65 ±0.2

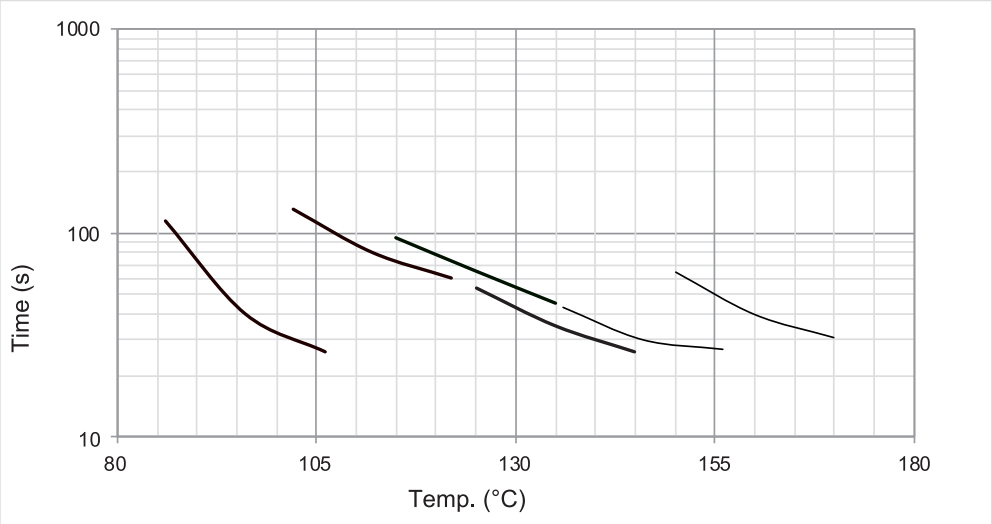
Specification

For Automotive Application: Battery Cooling System, Pre-charged Resistor, Automotive Air Conditioning

Model	T_f	Fusing Temp.	T_h	T_m	I_{min}	I_r	U_r
	(°C)	(°C)	(°C)	(°C)	(A)	(A)	(V)
MPATCO-TG102C-HQZ	102	97 ±5	65	250	0	15	DC 450
MPATCO-TG115C-HQZ	115	110 ±5	72				
MPATCO-TG115C-JPZ			70			20	DC 400
MPATCO-TG125C-HQZ	125	120 ±5	85			15	DC 450
MPATCO-TG125C-JPZ						20	DC 400
MPATCO-TG136C-HQZ	136	131 ±5	90			15	DC 450
MPATCO-TG136C-JPZ						20	DC 400
MPATCO-TG150C-HQZ	150	145 ± 5	100			15	DC 450
MPATCO-TG86C-HQZ	86	81 ±5	43				DC 450
MPATCO-TG86C-HSZ							DC 600

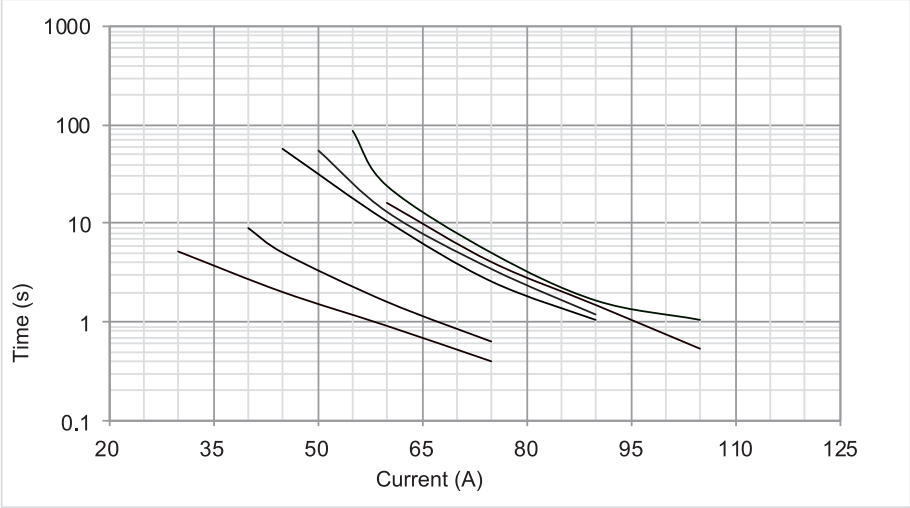
Temp.-Time Curve

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



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
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG102C-HQZ
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG115C-HQZ
Direct Current Alloy Thermal-Link , 20A, 400V DC	MPATCO-TG115C-JPZ
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG125C-HQZ
Direct Current Alloy Thermal-Link , 20A, 400V DC	MPATCO-TG125C-JPZ
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG136C-HQZ
Direct Current Alloy Thermal-Link , 20A, 400V DC	MPATCO-TG136C-JPZ
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG150C-HQZ
Direct Current Alloy Thermal-Link , 15A, 450V DC	MPATCO-TG86C-HQZ
Direct Current Alloy Thermal-Link , 15A, 600V DC	MPATCO-TG86C-HSZ