

High Voltage 10EV fuse

Rated 500 V DC

RoHS



Description

LC 10EV fuses comes in six configurations. Each version of the cylindrical low-voltage, high-current fuse employs diffusion pill technology to provide time-delayed protection to circuits in EVs and hybrid passenger vehicles. Ask Littelfuse which configuration best meets your needs.

Features & Benefits

- Available with ampere ratings of 10 A to 50 A
- Interrupting Rating of 20 kA @ 500 VDC
- Voltage Rating of 500 VDC
- Operates from -40 °C to +125 °C
- Typical weight of 9.5 g
- Mounting Torque M5 of 4.5 ±1 Nm (ISO prescription for ZXISO and ZXBDF versions)
- Melamine body with UL 94 flammability ratings of V-0
- End caps in nickel plated brass
- Terminal in tin plated copper alloy Refers to ISO 8820-8
- Available in cartridge version Available with blade, bolt down, or PCB connectors
- Color coded bands indicate ampere ratings

Applications

- EVs
- Hybrid vehicles

Ratings

Part Number	Current Rating (A)	Color coding	Test Cable Size (mm ²)	Typ. Voltage Drop at 70% I _R (mV)	Typical Cold Resistance (mΩ)	Typical Melting I ² t (A ² s)
10EV010.xxx	10	Red	1	114	12.8	310
10EV015.xxx	15	Blue	1.5	83	7.4	800
10EV020.xxx*	20	Yellow	2.5	Coming up	Coming up	Coming up
10EV030.xxx	30	Green	5	67	0.90	1500
10EV040.xxx	40	Orange	5	69	0.73	4450
10EV050.xxx	50	Black	5	69	0.73	7800

The typical I²t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

(*) Products in development - Final values for voltage drop, resistance, melting I²t and T/C curves will be generated from PV tests data. Please contact Littelfuse® for more details regarding availability timing.

Ordering Information

Part Number	Termination	Package Size
10EVxxx.ZXC	CARTRIDGE	320
10EVxxx.ZXISO	BOLT DOWN (ISO)	320
10EVxxx.ZXPY	BLADE	320
10EVxxx.ZXBDF	BOLT DOWN (AXIAL)	320
10EVxxx.ZXPCB	PCB MOUNT	320
10EVxxx.ZXPCBL	PCB MOUNT (LONG)	320

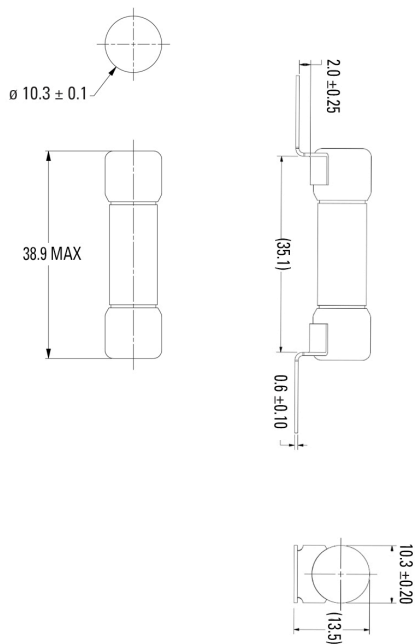
High Voltage 10EV fuse

Rated 500 V DC

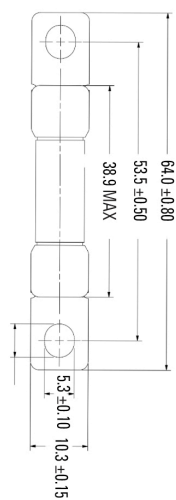
Dimensions

Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.

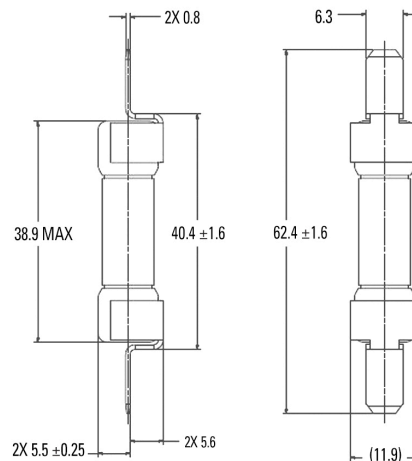
ZXC Cartridge



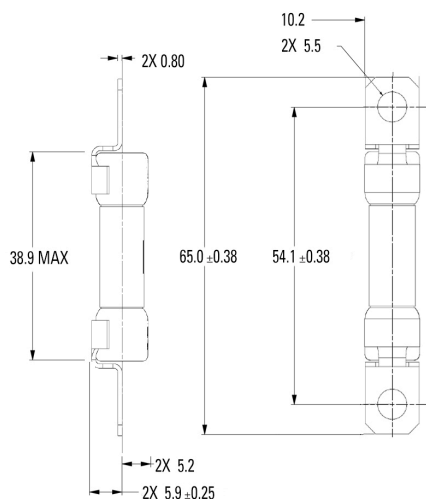
ZXISO Bolt Down (ISO)



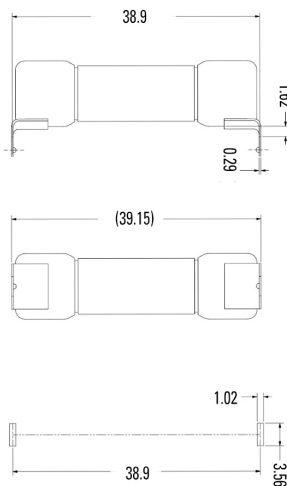
ZXPY Blade



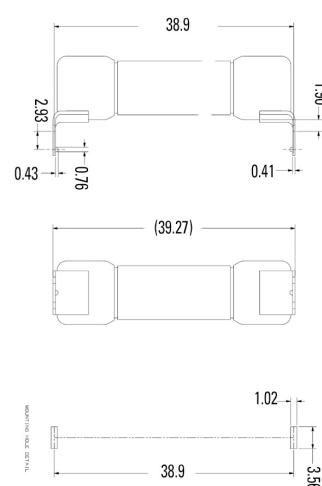
ZXB DP Bolt Down (Axial)



ZXPCB PCB Mount



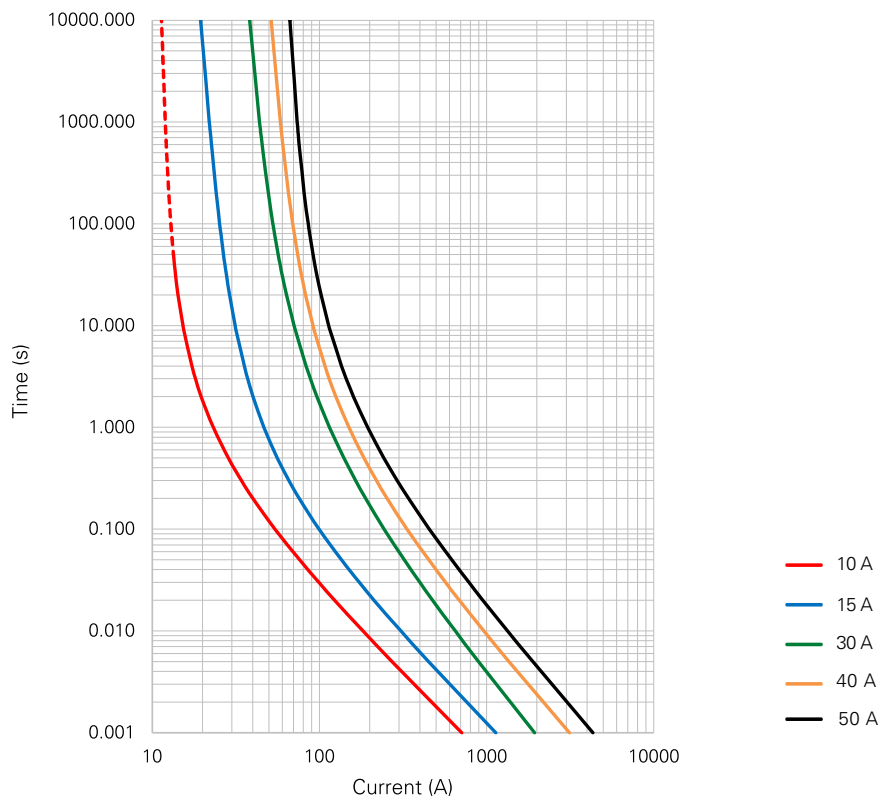
ZXPCBL PCB Mount (Long)



High Voltage 10EV fuse

Rated 500 V DC

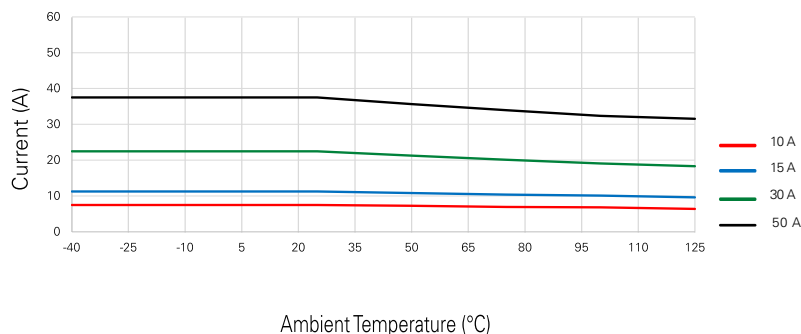
Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
110	14 400 / -
200	1.0 / 300
300	0.2 / 30
500	0.05 / 1.0

Typical Rerating Curves

Please contact Littelfuse® for Details Regarding Rerating Test Set Up



	Max. Allowed Current Load (A) at Ambient Temperature (Typical Rerating)						
	-40°C	0°C	20°C	65°C	85°C	110°C	125°C
10 A	7.5	7.5	7.5	7.0	6.9	6.9	6.9
15 A	11.3	11.3	11.3	10.5	10	10	9.6
20 A	Under development						
30 A	22.5	22.5	22.5	20.6	20	18.8	18.3
40 A	Coming soon						
50 A	37.5	37.5	37.5	34.8	33.4	32	31.6

Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.