30EV1K Series

High Voltage Fuses – Rated 1000 V DC

RoHS

Description

The 30EV1K fuse is designed for protection of high-voltage circuits in electric and hybrid electric vehicles.

Features & Benefits

- Interrupting Rating of 30 kA @ 1000 V DC
- Operates from -40 °C to +125 °C
- Voltage Rating of 1000 V DC
- Typical weight of 135 g
- Refers to ISO 8820-8
- Mounting Torque of 12 ±1 Nm (ISO prescription)
- Melamine body with UL 94 flammability ratings of V-0
- End caps in zinc alloy
- Terminal in copper alloy

Applications

- Use to protect circuits in EV and Hybrid passenger vehicles

See Disclaimer Notice

Additional Information

Resources

Samples

Specifications

Voltage Rating:	1000 V DC
Interrupting Rating:	30 kA @ 1000 V DC
Recommended Environmental Temperature:	–40 ˚C to +125 ˚C
Terminals Material:	Copper Alloy
Housing Material:	Melamine (U.L. 94 Flammability rating – V0)
End caps Material:	Zinc Alloy
Recommended Mounting Torque:	12 ±1 Nm (ISO prescription)
Typical Weight per Fuse:	135 g
Refers To:	ISO 8820-8

Ordering Information

Part Number	Current Rating (A)	Termination	Package Size
30EV1Kxxx.ZXBDM	150 A - 225 A	M8 Bolt Down	30

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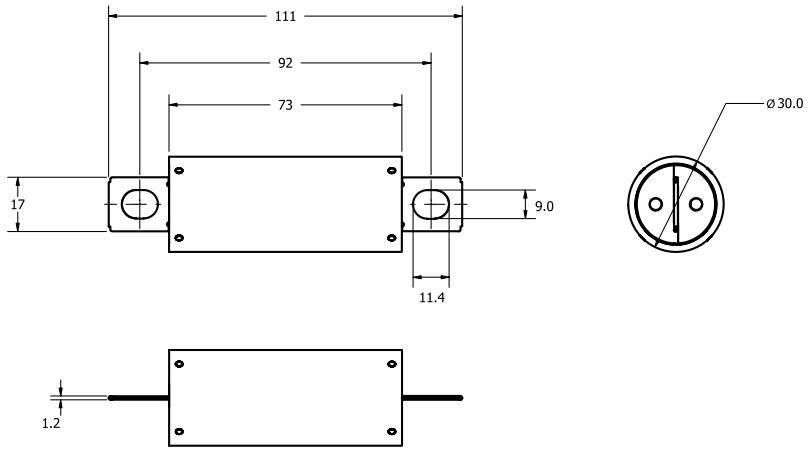
Ratings

Part Number	Current Rating (A)	Test Cable Size (mm²)	Typ. Voltage Drop at 100% Ir (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I²t (A²s)
30EV1K150.ZXBDM*	150	20	315	0.79	60 000
30EV1K175.ZXBDM*	175	20	223	0.62	103 000
30EV1K200.ZXBDM*	200	30	209	0.50	135 000
30EV1K225.ZXBDM*	225	40	204	0.42	164 000

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

Dimensions

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



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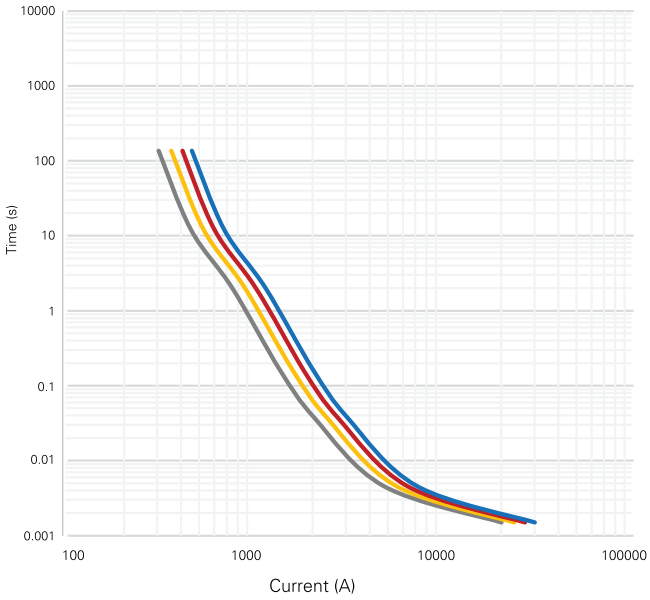
Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
200	1 / 300
300	0.2 / 30
500	0.05 / 1

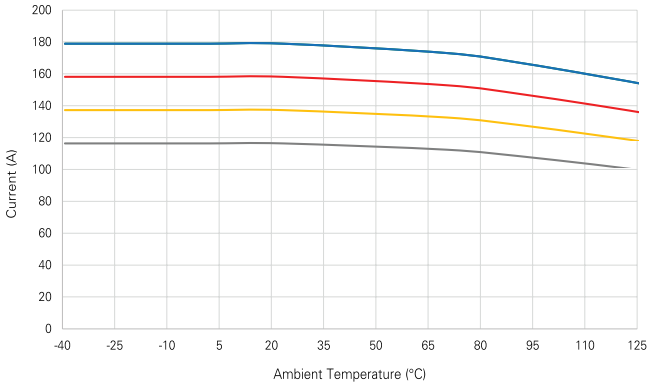
150 A
175 A
200 A
225 A

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

Typical Rerating Curves

Temperature security margin is 20%.

Please contact Littelfuse® for Details Regarding Rerating Test Set Up.



	Max. allowed current load (A) at ambient temperature based on typical derating						
	-40 °C	0 °C	20 °C	65 °C	85 °C	110 °C	125 °C
150 A	120	120	120	116	112	105	102
175 A	140	140	140	136	131	122	119
200 A	160	160	160	155	150	141	136
225 A	180	180	180	174	168	160	153

150 A
175 A
200 A
225 A

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

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