

# 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

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

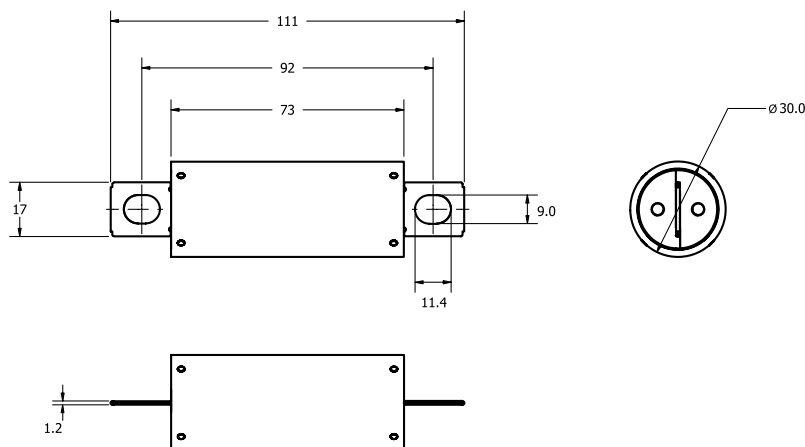
Part Number	Current Rating (A)	Test Cable Size (mm <sup>2</sup> )	Typ. Voltage Drop at 100% I <sub>r</sub> (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I <sup>2</sup> t (A <sup>2</sup> s)
30EV1K150.ZXBDM*	150	20	315	0.79	60 000
30EV1K175.ZXBDM*	175	20	223	0.62	103 000
30EV1K200.ZXBDM*	200	30	209	0.50	135 000
30EV1K225.ZXBDM*	225	40	204	0.42	164 000

\* Products in development - Final values for voltage drop, resistance, melting I<sup>2</sup>t and T/C curves will be generated from PV tests data. Please contact Littelfuse® for more details regarding availability timing.

**Note:** The typical I<sup>2</sup>t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

### Dimensions

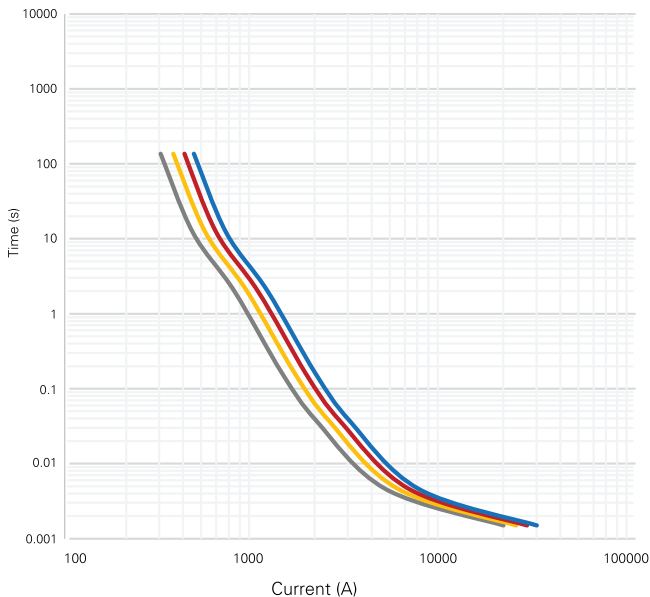
Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.



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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

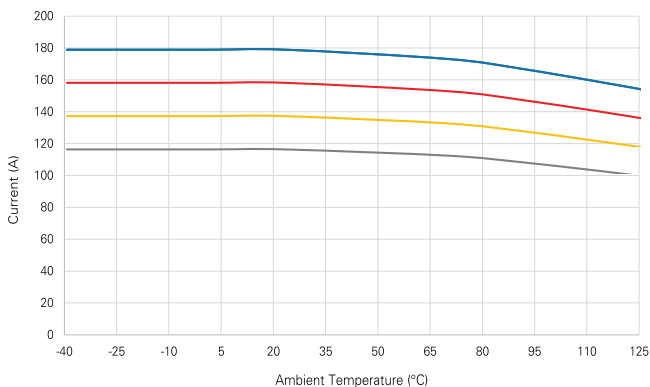
— 150 A  
— 175 A  
— 200 A  
— 225 A

**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 Derating Curves

Temperature security margin is 20%.

Please contact Littelfuse® for Details Regarding Derating 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
<b>150 A</b>	120	120	120	116	112	105	102
<b>175 A</b>	140	140	140	136	131	122	119
<b>200 A</b>	160	160	160	155	150	141	136
<b>225 A</b>	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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