

# 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

# 30EV1K Series

## High Voltage Fuses – Rated 1000 V DC

### Ratings

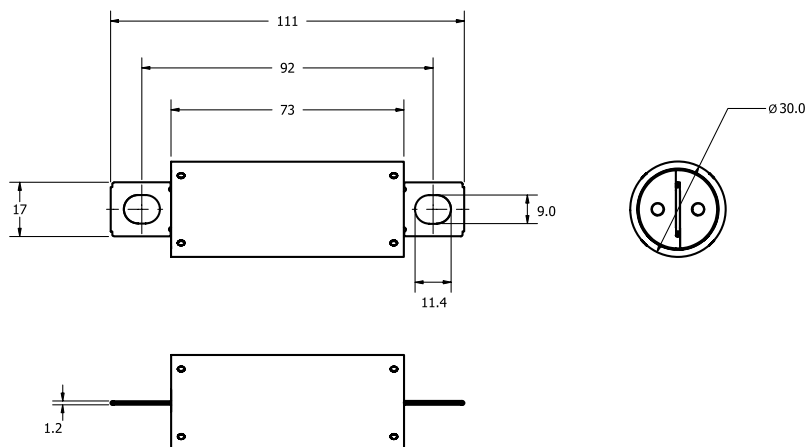
Part Number	Current Rating (A)	Test Cable Size (mm <sup>2</sup> )	Typ. Voltage Drop at 100% I <sub>r</sub> (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I <sup>2</sup> t (A <sup>2</sup> s)
30EV1K150.ZXBDM*	150	20	315	0.79	60 000
30EV1K175.ZXBDM*	175	20	223	0.62	103 000
30EV1K200.ZXBDM*	200	30	209	0.50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

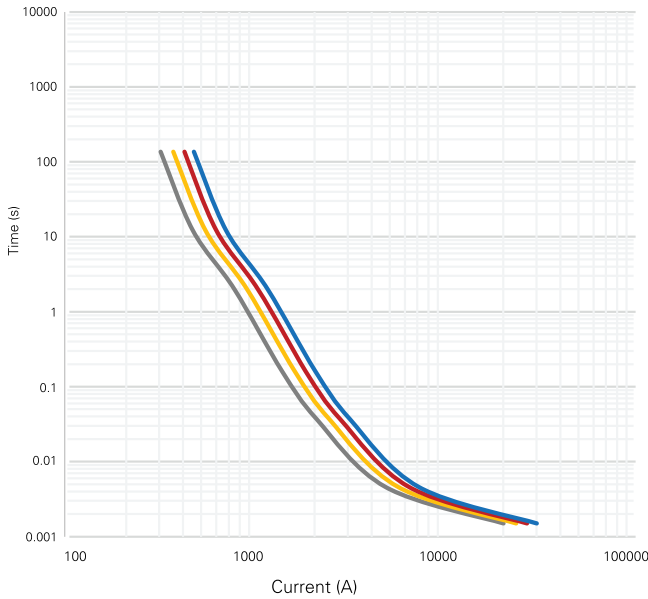
Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.



# 30EV1K Series

## High Voltage Fuses – Rated 1000 V DC

### Time-Current Characteristic



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

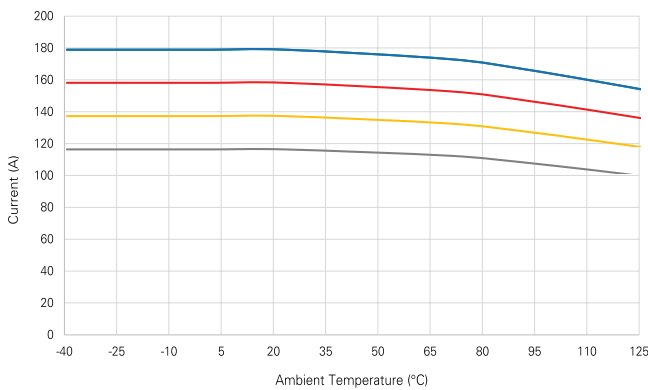
— 150 A  
— 175 A  
— 200 A  
— 225 A

**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.

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <https://www.littelfuse.com/legal/disclaimers/product-disclaimer.aspx>