# **25EV1K Series**

# High Voltage Fuses – Rated 1000 V DC





### **Description**

The 25EV1K 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
- Voltage Rating of 1000 V DC
- Typical weight of 100 g
- Operates from -40 °C to +125 °C
- Refers to ISO 8820-8

- Melamine body with UL 94 flammability ratings of V-0
- End caps in zinc alloy
- Terminal in copper alloy
- Mounting Torque of 12 ±1 Nm (ISO prescription)

### **Additional Information**





Resources

Samples

### **Applications**

Use 25EV1K fuses to protect circuits in EV and Hybrid passenger vehicles

#### See Disclaimer Notice

## **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:	100 g
Refers To:	ISO 8820-8

## **Ordering Information**

Part Number	Current Rating (A)	Termination	Package Size	
25EV1Kxxx.ZXBDM	70 A - 125 A	M8 Bolt Down	56	



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## **Ratings**

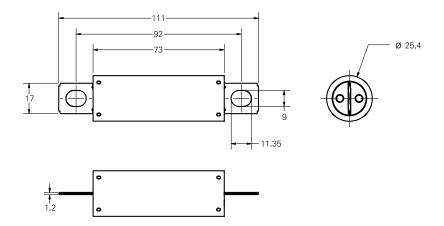
Part Number	Current Rating (A)	Test Cable Size (mm²)	Typ. Voltage Drop at 100% Ir (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I <sup>2</sup> t (A <sup>2</sup> s)
25EV1K070.ZXBDM*	70	10	240	2.41	8500
25EV1K080.ZXBDM*	80	10	210	1.76	15 000
25EV1K090.ZXBDM*	90	20	170	1.22	17 000
25EV1K100.ZXBDM*	100	20	210	1.16	21 000
25EV1K125.ZXBDM*	125	20	180	0.85	55 000

<sup>\*</sup> 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.

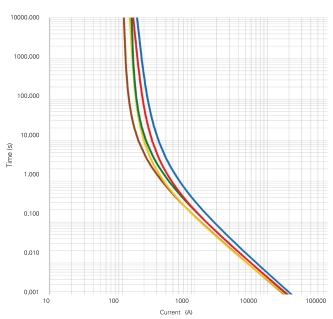




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### **Time-Current Characteristic**



% of Rating	Opening Time Min. / Max. (s)
135	150 / 3600
150	20 / 1500
200	1 / 300
300	0.2 / 30
500	0.05 / 1

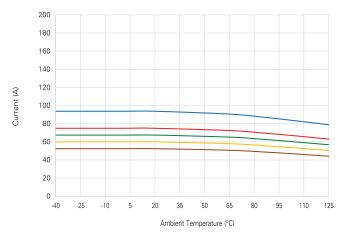
70 A 80 A 90 A 100 A

**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
70 A	53	53	53	51	49	46	44
80 A	60	60	60	58	56	53	51
90 A	68	68	68	65	63	59	57
100 A	75	75	75	73	70	66	63
125 A	94	94	94	91	87	83	79

70 A 80 A 90 A 100 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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