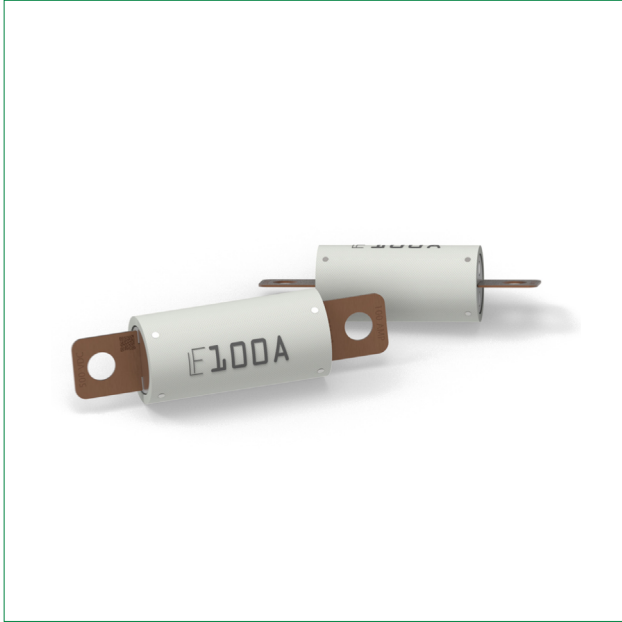


# 20EV Series

## High Voltage Fuses – Rated 500 V DC

RoHS



### Description

Bolt down 20EV automotive fuses can be installed in most EVs and hybrid passenger vehicles for circuit protection.

### Features & Benefits

- Interrupting Rating of 20 kA @ 500 V DC
- Voltage Rating of 500 V DC
- Typical weight of 35 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 M6 of 6 ±1 Nm (ISO prescription) 10 Nm (Max. allowed)

### Applications

- Use the 20EV high voltage fuses to protect circuits in EV and Hybrid passenger vehicles

### Additional Information



Resources



Samples

[See Disclaimer Notice](#)

### Specifications

<b>Voltage Rating:</b>	500 V DC
<b>Interrupting Rating:</b>	20 kA @ 500 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 M6:</b>	6±1 Nm (ISO prescription) 10 Nm (Max allowed)
<b>Net Weight per Fuse:</b>	35±5 g
<b>Refers To:</b>	ISO 8820-8

\*Note: Tin plating's temperature limit is ≈130 °C. Silver plating allows up to 150 °C at the terminal interface.

### Ordering Information

Part Number	Termination	Package Size
20EVxxx.ZXBDMC	M6 Bolt Down	320

# 20EV Series

## High Voltage Fuses – Rated 500 V DC

### Ratings

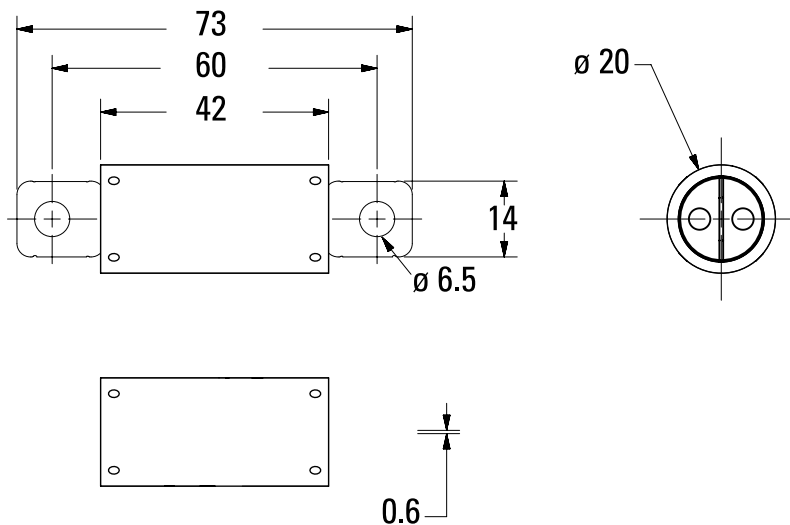
Part Number	Current Rating (A)	Test Cable Size (mm <sup>2</sup> )	Typ. Voltage Drop (mV)	Max. Voltage Drop Spec at 100% IR (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I <sup>2</sup> t (A <sup>2</sup> s)
20EV060.ZXBDMC*	60	5	137	250	1.78	7600
20EV070.ZXBDMC*	70	10	142	250	1.5	11 100
20EV080.ZXBDMC*	80	10	145	250	1.35	23 150
20EV100.ZXBDMC*	100	20	132	250	0.90	24 400
20EV125.ZXBDMC*	125	20	160	200	0.73	34 000

\* 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

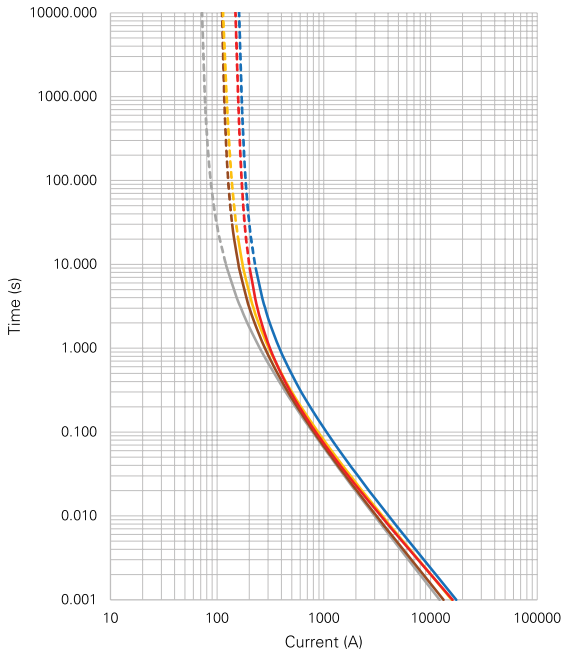
Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.



# 20EV Series

## High Voltage Fuses – 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

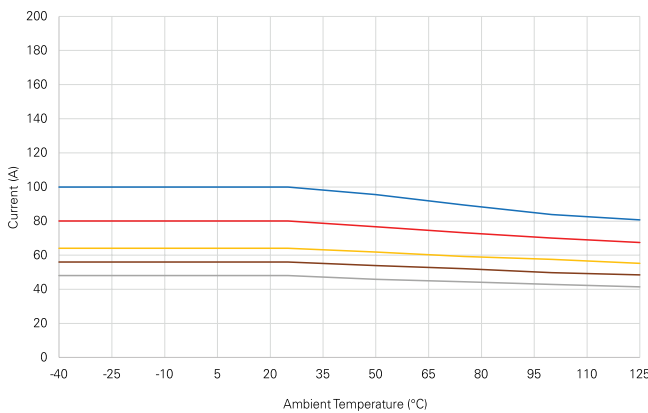
- 60 A
- 70 A
- 80 A
- 100 A
- 125 A

**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>60 A</b>	48	48	48	45	44	42	41
<b>70 A</b>	56	56	56	53	51	49	48
<b>80 A</b>	64	64	64	61	58	57	56
<b>100 A</b>	80	80	80	75	72	69	67
<b>125 A</b>	100	100	100	94	90	86	84

- 60 A
- 70 A
- 80 A
- 100 A
- 125 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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