







AUTOMOTIVE PASSENGER CAR CATALOG

BLADE FUSES HIGH VOLTAGE FUSES SMD COMPONENTS

CARTRIDGE FUSES MASTERFUSES CABLE PROTECTION

HIGH CURRENT FUSES PAL FUSES SPECIALTY PRODUCTS



Littelfuse and the Environment

As members of the global community, we at Littelfuse have always strived to understand the impact of what we do, and of what we create, on the world around us. Because of this, our concern for the environment has always been an integral and fundamental part of our business. We continually work to balance our business objectives with the need to protect and improve the local and global environment.

Our Strategy for the Design of Eco-friendly Products

Littelfuse has established a focused program committed to developing high-performance eco-friendly products along with a comprehensive set of processing/reliability data and technical process expertise. This includes processes for eliminating, detecting and documenting the presence of hazardous materials such as

- Lead
- Cadmium
- Hexavalent Chromium
- Mercury
- Brominated flame-retardants (PBBs and PBDEs)

The Littelfuse strategy for eco-friendly products is specifically designed to help support our worldwide customers in their transition to Lead-Free processing.



All products considered to be lead-free are marked with this symbol.

Littelfuse defines lead-free as products which contain less than 1000ppm (0.1%) Lead, measured by weight of the entire product.



All RoHS compliant products are marked with this symbol.

Littelfuse follows the requirement set by the European Union for all RoHS compliant products. The European Union Directive 2002/95/EC RoHS restricts the use of Lead, Mercury, Hexavalent Chromium, Cadmium and Brominated flame-retardants (PBBs and PBDEs)

Visit www.littelfuse.com/lead-free for further information.

High Voltage Fuses





High Current 20EV Fuses

High Current 20EV Fuse

The HC EV fuse is designed for protection of high-current / high-voltage circuits in electric and hybrid electric vehicles.

Specifications

 $\begin{array}{lll} \mbox{Interrupting Rating:} & 20\mbox{kA} @ 500\mbox{VDC} \\ \mbox{Voltage Rating:} & 500\mbox{VDC} \\ \mbox{Operating Temperature Range:} & -40\mbox{°C to } +125\mbox{°C} \\ \mbox{Net Weight Per Fuse:} & 35\pm 5\mbox{ gr} \\ \end{array}$

Material: Body: Melamine (U.L. 94 Flammability rating – V0)

Retaining Pins: Stainless Steel

Endbells: Zinc Alloy Terminals: Copper Alloy

Mounting Torque: 5-7 Nm M6 (ISO prescription)

10 Nm M6 (Max allowed)
Refers To: ISO 8820-8 JASO D622

Ordering Information

Time-Current Characteristics

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

85

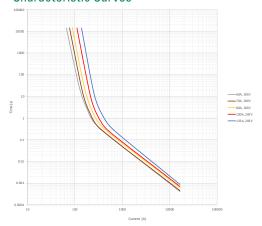
% of Rating	Opening Time Min / Max (s)		
110	4 hrs / ∞		
200	1.0 / 300		
300	0.2 / 30		
500	0.05 / 1.0		

Ratings

Part Number	Current Rating (A)	Typ. Voltage Drop (mV)	Max. Voltage Drop Spec at 100% IR (mV)	Test Cable Size (mm²)	Typical Cold Resistance (mΩ)	Typical Melting I²t (A²s)
20EV060.ZXBDM	60	137	200	5	1.70	6539
20EV070.ZXBDM	70	142	200	10	1.43	8459
20EV080.ZXBDM	80	145	200	10	1.25	17836
20EV100.ZXBDM	100	132	200	20	0.83	22215
20EV125.ZXBDM	125	160	200	20	0.69	33856

(Average Initial Measurements)

Time-Current Characteristic Curves



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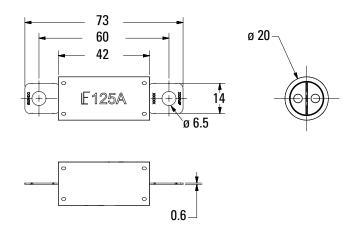
High Voltage Fuses



High Current 20EV Fuse

Dimensions

Dimensions in mm

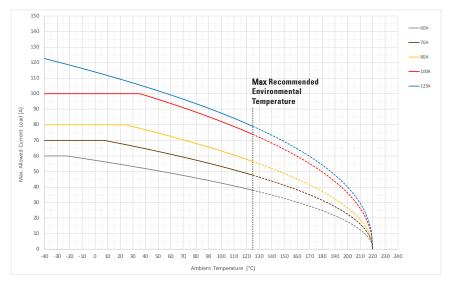


Temperature Table

	max. allowed current load [A] at ambient temperature (typical derating)						
	-40°C	0°C	20°C	65°C	85°C	110°C	125°C
60A	60	57	55	48	45	41	38
70A	70	70	68	60	56	51	48
80A	80	80	80	72	67	61	56
100A	100	100	100	92	87	79	74
125A	123	114	109	98	92	84	79

Typical Derating Of Fuse Melting Element

Temperature Security Margin is 20% Please Contact Littelfuse $^{\rm @}$ For Details Regarding Derating Test Set Up



Derating curves may change depending on the final condition of the application (terminals characteristics, wire size exc..). Please ask Littelfuse for more information.