Littelfuse EV Fuse

EV1K SERIES

1000 VDC • 60–600 A

RoHS REACH



Description

The Littelfuse EV1K series is an electric vehicle (EV) fuse designed to protect high-voltage, high-current on-board applications in electric and hybrid vehicles as well as off-board charging. It was specifically built from the ground up to meet the stringent requirements and standards of the electric vehicle industry.

Features

- Mechanical shock and vibration durability to increase product longevity
- High interrupting rating and open state resistance for maximum short circuit protection
- Thermal shock resistant to handle temperature fluctuations for reliable cycling performance
- Temperature and humidity resistant to withstand a wide variety of environmental conditions

End Markets

- Electric and hybrid passenger vehicles
- Commercial bus, truck, and other heavy-duty electric and hybrid vehicles
- Construction and agriculture equipment
- On-board and off-board charging infrastructure

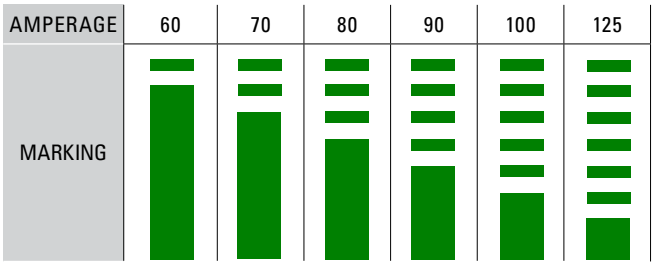
Applications

- Battery pack protection
- Traction inverter protection
- Energy storage
- Power conversion
- High voltage power distribution
- Battery disconnect unit

Specifications

Voltage Rating	1000 VDC
Amperage Rating	60 A–600 A
Interrupting Rating	30 kA at 1000 VDC
Time Constant	Resistive
Material	Body: melamine (UL 94 Flammability rating V-0) Terminals: copper alloy (silver plated)
Recommended Mounting Torque:	14 Nm
Refers To	ISO8820 JASO D622
Environmental	RoHS Compliant REACH
Operating Temperature	–40 °C to +125 °C
Country of Origin	Mexico

Body Marking by Amperage



Recommended Fuse Blocks

LSCR001 (60–125 A)
LSCR002 (150–600 A)



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Electrical Specifications

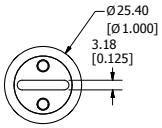
AMPERAGE RATING	VOLTAGE RATING	INTERRUPT RATING	NOMINAL COLD RESISTANCE	MINIMUM BREAKING CAPACITY	MELTING (PRE-ARCING) I^2T (A^2S)	TOTAL CLEARING I^2T (A^2S)	WATTS LOSS AT 50 % RATED CURRENT	WATTS LOSS AT 80 % RATED CURRENT	WATTS LOSS AT 100 % RATED CURRENT	TEST CABLE SIZE	WEIGHT
	DC	DC	(mΩ)	(A)		30 KA @ 1000 V DC	(W)	(W)	(W)	(MM^2)	(KG)
60	1000	30 kA	1.826	300	850	5500	1.9	5.7	10.4	5	0.11
70	1000	30 kA	1.877	350	890	5760	2.6	8.4	16.3	20	0.11
80	1000	30 kA	1.395	400	1580	10250	2.6	8.0	15.1	20	0.11
90	1000	30 kA	1.218	450	1910	12400	2.8	8.8	16.7	20	0.11
100	1000	30 kA	1.053	500	2670	17300	3.1	9.5	17.8	20	0.11
125	1000	30 kA	0.789	625	4500	26200	3.9	11.8	17.9	20	0.11
150	1000	30 kA	Coming Soon								
175	1000	30 kA									
200	1000	30 kA									
225	1000	30 kA									
250	1000	30 kA									
300	1000	30 kA									
350	1000	30 kA									
400	1000	30 kA									
450	1000	30 kA									
500	1000	30 kA									
600	1000	30 kA									

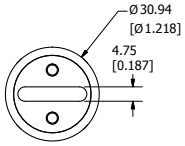
Ordering Information

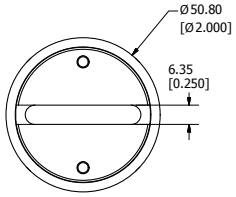
SERIES	AMPERAGE RATING	AMPERE CODE	CATALOG NUMBER	ORDERING NUMBER	PACKING QUANTITY	UPC CODE
EV1K	60	060	EV1K060	EV1K060.ZXBD	60 Pcs/Box	07945828637
EV1K	70	070	EV1K070	EV1K070.ZXBD	60 Pcs/Box	07945828368
EV1K	80	080	EV1K080	EV1K080.ZXBD	60 Pcs/Box	07945828639
EV1K	90	090	EV1K090	EV1K090.ZXBD	60 Pcs/Box	07945828667
EV1K	100	100	EV1K100	EV1K100.ZXBD	60 Pcs/Box	07945828668
EV1K	125	125	EV1K125	EV1K125.ZXBD	60 Pcs/Box	07945828669
EV1K	150	150	EV1K150	EV1K150.ZXBD	TBD	79458 XXXXX
EV1K	175	175	EV1K175	EV1K175.ZXBD	TBD	79458 XXXXX
EV1K	200	200	EV1K200	EV1K200.ZXBD	TBD	79458 XXXXX
EV1K	225	225	EV1K225	EV1K225.ZXBD	TBD	79458 XXXXX
EV1K	250	250	EV1K250	EV1K250.ZXBD	TBD	79458 XXXXX
EV1K	300	300	EV1K300	EV1K300.ZXBD	TBD	79458 XXXXX
EV1K	350	350	EV1K350	EV1K350.ZXBD	TBD	79458 XXXXX
EV1K	400	400	EV1K400	EV1K400.ZXBD	TBD	79458 XXXXX
EV1K	450	450	EV1K450	EV1K450.ZXBD	TBD	79458 XXXXX
EV1K	500	500	EV1K500	EV1K500.ZXBD	TBD	79458 XXXXX
EV1K	600	600	EV1K600	EV1K600.ZXBD	TBD	79458 XXXXX

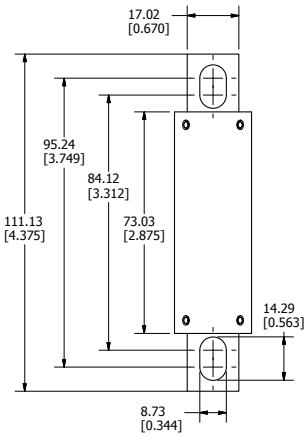
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Dimensions
Millimeters [inches]

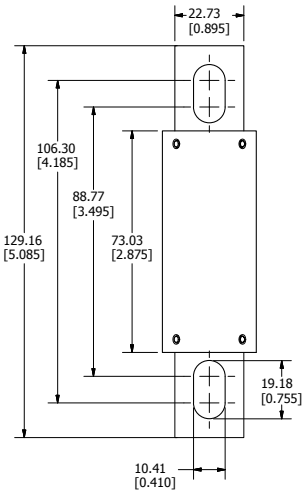




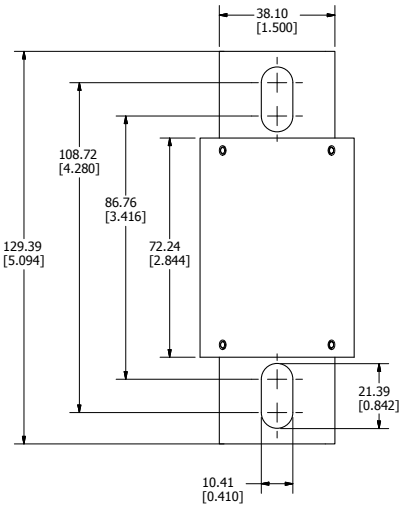




60 A–125 A

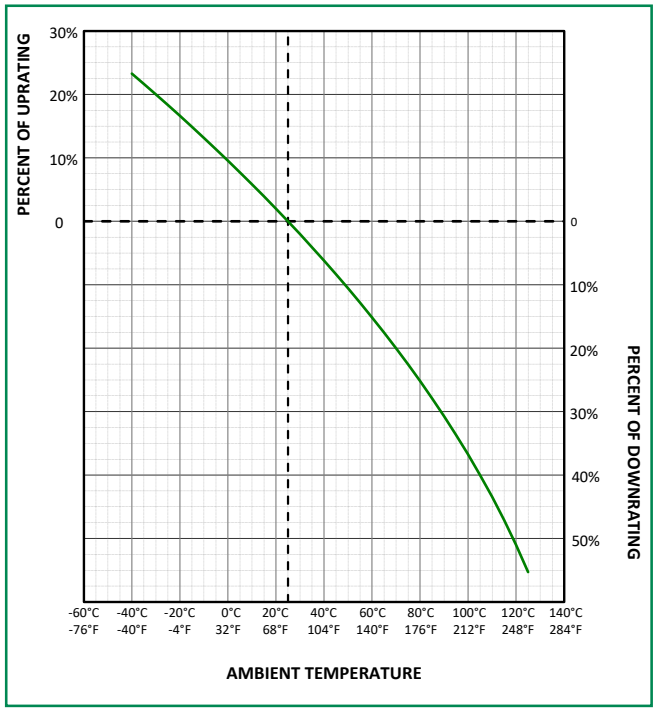


150 A–225 A



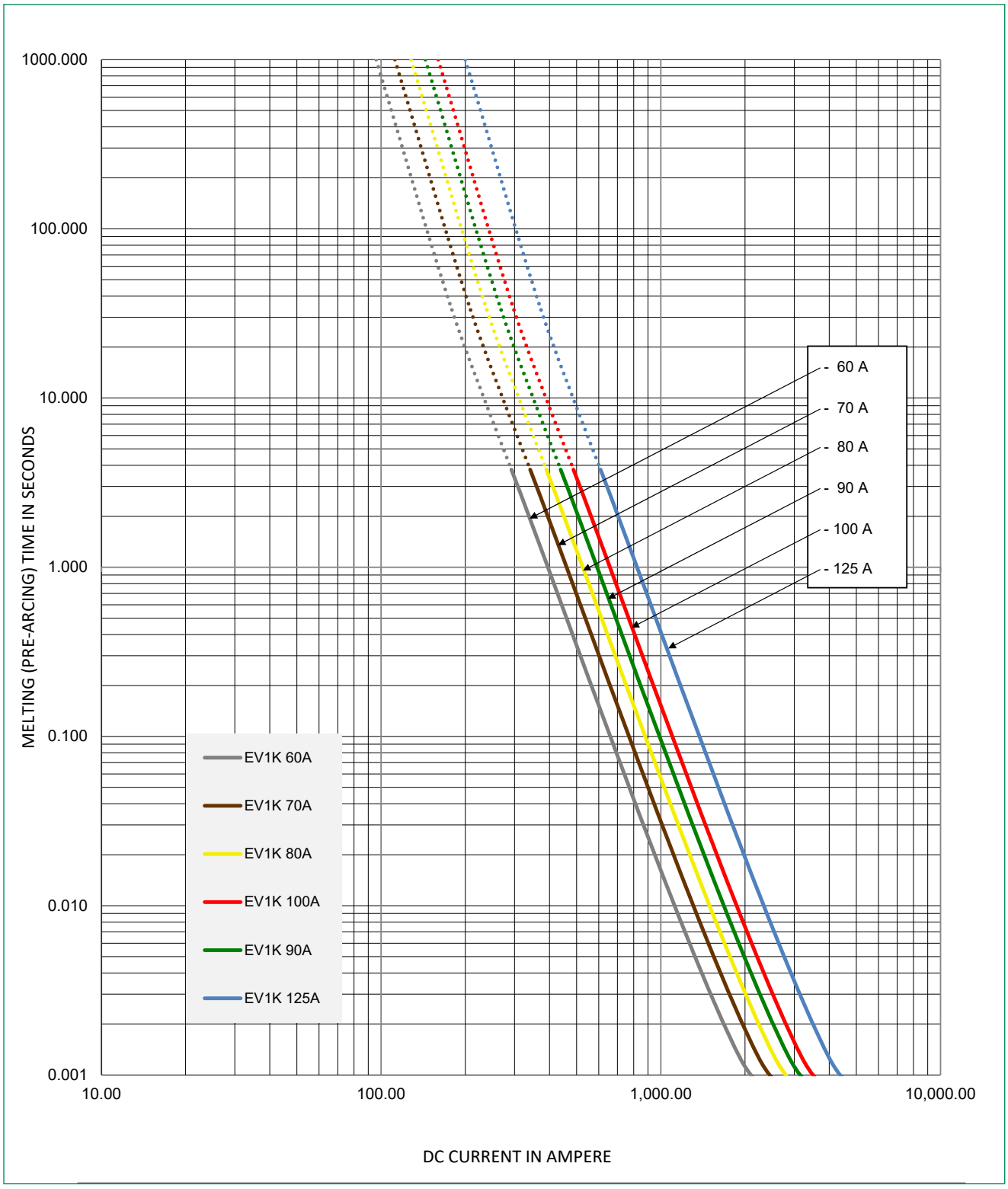
250 A–600 A

Temperature Re-rating Curve
(temperature of air immediately surrounding fuse)



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Time Current Curve
(60–125 A)



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