30EV Series

High Voltage Fuses – Rated 500 V DC

RoHS

Description

Bolt-down 30EV fuses designed for circuit protection in high-voltage, high-current automotive systems. These fuses make particularly good choices for ensuring overcurrent protection to branch circuits in EVs and hybrid passenger vehicles.

Features & Benefits

- High-contrast ampere marking on bodies aid identification
- M8 and M6 versions available
- Industry-standard footprints
- Refers to ISO 8820-8

Applications

- EVs
- Hybrid passenger vehicles

See Disclaimer Notice

Additional Information

Resources

Samples

Specifications

Voltage Rating:	500 V DC
Interrupting Rating:	30 kA @ 500 V DC
Recommended Environmental Temperature:	–40 ˚C to +125 ˚C
Terminals Material:	Copper / Copper Alloy
Housing Material:	Melamine (U.L. 94 Flammability rating – V0)
End caps Material:	Zinc Alloy
Recommended Mounting Torque M8:	12 ±1 Nm
Recommended Mounting Torque M6:	6 ±1 Nm (Max. allowed 10 Nm)
Net Weight per Fuse:	100 g ±10% g
Refers To:	ISO 8820-8

Ordering Information

Part Number	Current Rating (A)	Termination	Package Size
30EVxxx.ZXBDM	150 A - 300 A	M8 Bolt Down	72
30Evxxx.ZXBDM-M6	150 A - 300 A	M6 Bolt Down	72

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Ratings

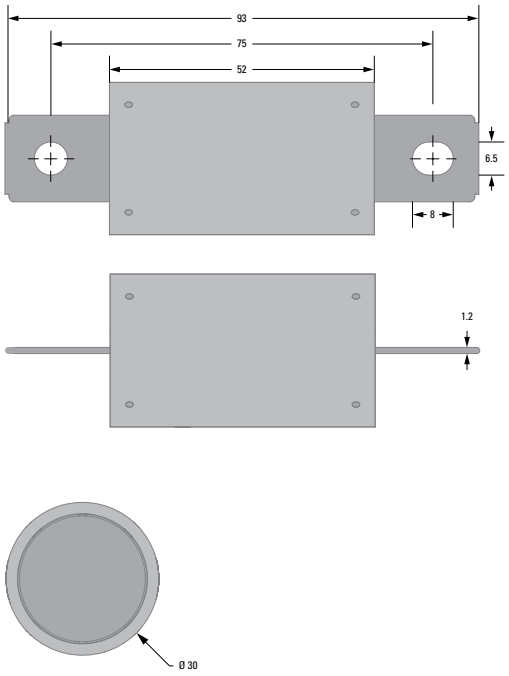
Part Number	Current Rating (A)	Test Cable Size (mm^2)	Typ. Voltage Drop (mV)	Max. Voltage Drop Spec at 100% IR (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I^2t (A^2s)
30EV150.ZXBDM	150	20	160	180	0.54	15 000
30EV175.ZXBDM	175	20	160	180	0.46	22 000
30EV200.ZXBDM	200	30	160	180	0.41	32 000
30EV225.ZXBDM	225	40	160	180	0.36	41 000
30EV250.ZXBDM	250	40	160	180	0.32	52 000
30EV300.ZXBDM	300	50	160	C*	0.27	101 000

* Characterization Only.
The typical I^2t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

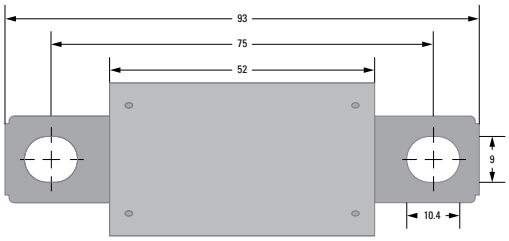
Dimensions

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

M6 Version



M8 Version



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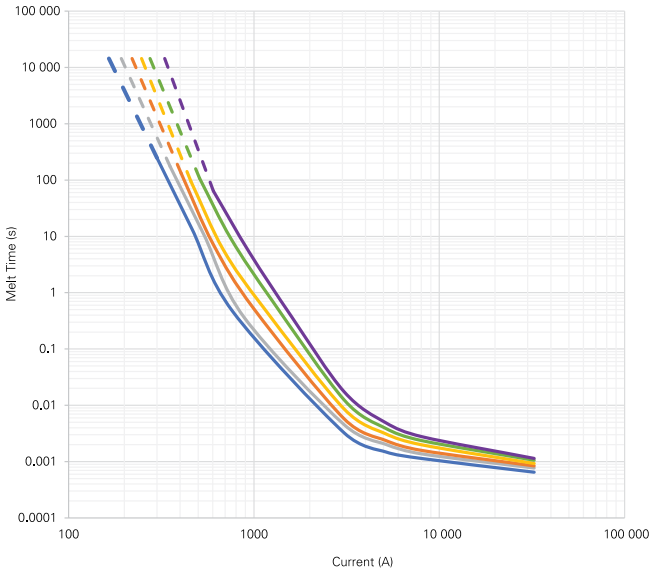
Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
100	14 400 / -
200	1 / 300
300	0.2 / 30
500	0.05 / 1

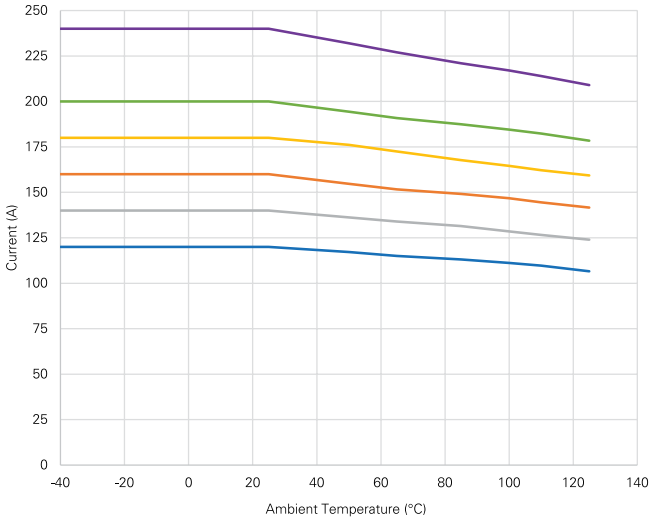
150 A
175 A
200 A
225 A
250 A
300 A

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	25 °C	65 °C	85 °C	110 °C	125 °C
150 A	120	120	120	115	113	110	107
175 A	140	140	140	134	132	127	124
200 A	160	160	160	152	149	145	142
225 A	180	180	180	173	168	162	159
250 A	200	200	200	191	188	182	178
300 A	240	240	240	227	221	214	209

150 A
175 A
200 A
225 A
250 A
300 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.