

Electric vehicle auxiliary fuses — 500 Vdc, 5-50 A



Catalog symbol:

- EV10-(amp) ferrule
- EV10-(amp)-B axial bolt-on
- EV10-(amp)-T flush bolt-on
- EV10-(amp)-1P PCB terminal

Description:

Eaton's Bussmann® series Electric Vehicle (EV) full range fuses for the protection of auxiliary electrical systems up to 500 Vdc in ratings from 5 to 50 amps.

Specifications:

Ratings

- Volts - 500 Vdc
- Amps – 5-50 A
- Interrupting rating
 - Max DC – 20 kA
 - Min DC 135%
- Operating temperature range -40°C to 125°C

Agency information

- Designed to:
 - JASO D622
 - ISO 8820-8
- Manufactured under a TS16949 quality system for compliance with automotive requirements
- RoHS compliant
- REACH declaration available upon request

Packaging

- EV10-(amp) ferrule fuses
 - 10 per carton
 - 500 per container
- EV10-(amp)-1P PCB fuses
 - 10 per carton
 - 480 per container
- EV10-(amp)-B axial bolt-on fuses
 - 270 per container
- EV10-(amp)-T flush bolt-on fuses
 - 270 per container

Features:

- Compact 10x38 mm size is easily mounted with multiple terminal options
- Higher voltage rating provides overall system efficiency using smaller, more economical conductors while meeting the needs of higher voltage battery packs
- Higher interrupting rating protects high capacity battery packs needed for vehicle acceleration and range requirements
- Operation as low as 135% overload provides full range protection for overload and high fault current conditions
- Can be selectively coordinated with upstream battery and charging circuit fuses

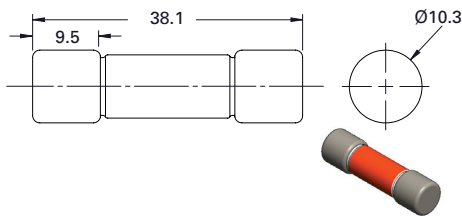
Catalog numbers:

Catalog no.	Average @ 20 kA/500 Vdc			Amps	Melting I ² t	Clearing I ² t	Power loss (W) @ 50%*
	Ferrule	Axial bolt-on	Flush bolt-on				
EV10-5	EV10-5-B	EV10-5-T	EV10-5-1P	5	70	84	0.36
EV10-7.5	EV10-7.5-B	EV10-7.5-T	EV10-7.5-1P	7.5	208	243	0.58
EV10-10	EV10-10-B	EV10-10-T	EV10-10-1P	10	321	411	0.62
EV10-20	EV10-20-B	EV10-20-T	EV10-20-1P	20	761	1483	0.49
EV10-30	EV10-30-B	EV10-30-T	EV10-30-1P	30	1150	2095	1.10
EV10-40	EV10-40-B	EV10-40-T	EV10-40-1P	40	1720	3568	1.96
EV10-50	EV10-50-B	EV10-50-T	EV10-50-1P	50	2740	5073	3.06

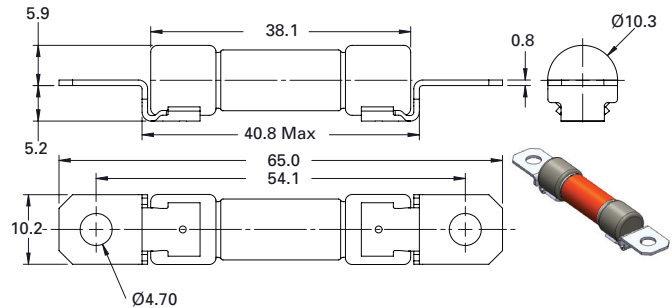
* 50 percent of fuse label amp rating tested at 23°C ± 2°C.

Dimensions† — mm:

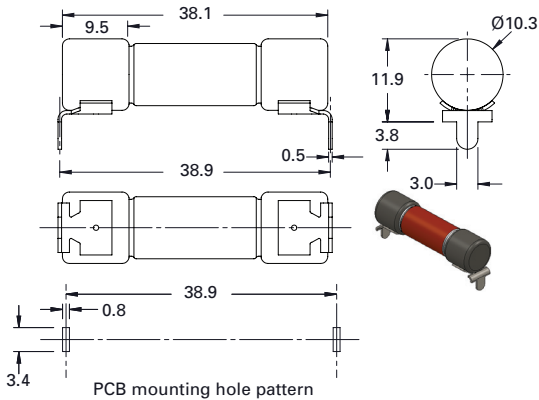
10x38 mm ferrule



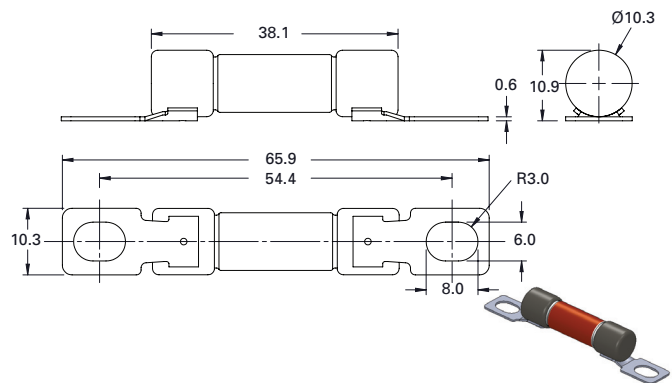
10x38 mm axial bolt-on



10x38 mm PCB terminal



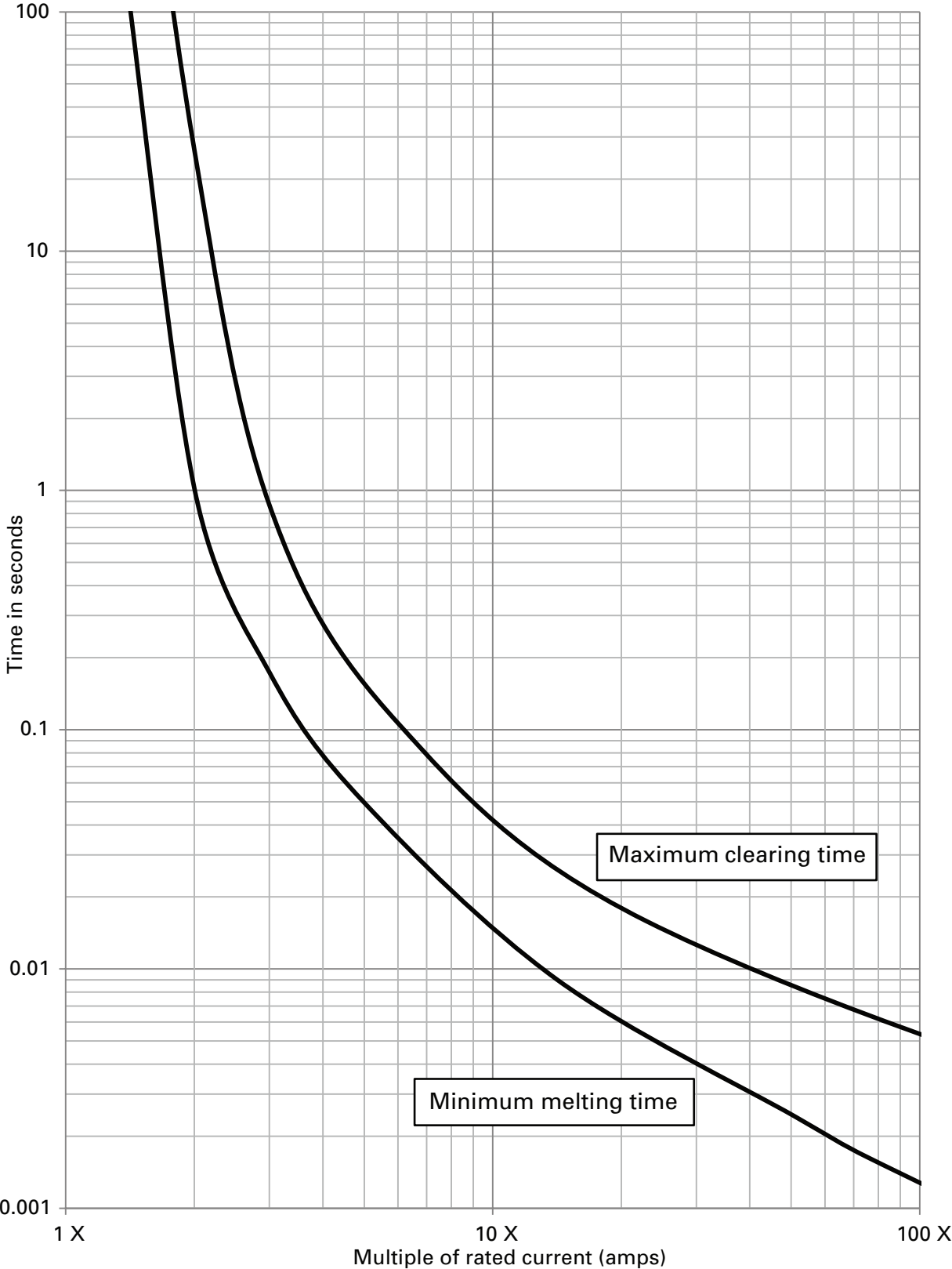
10x38 mm flush bolt-on



† Dimension are nominal values.

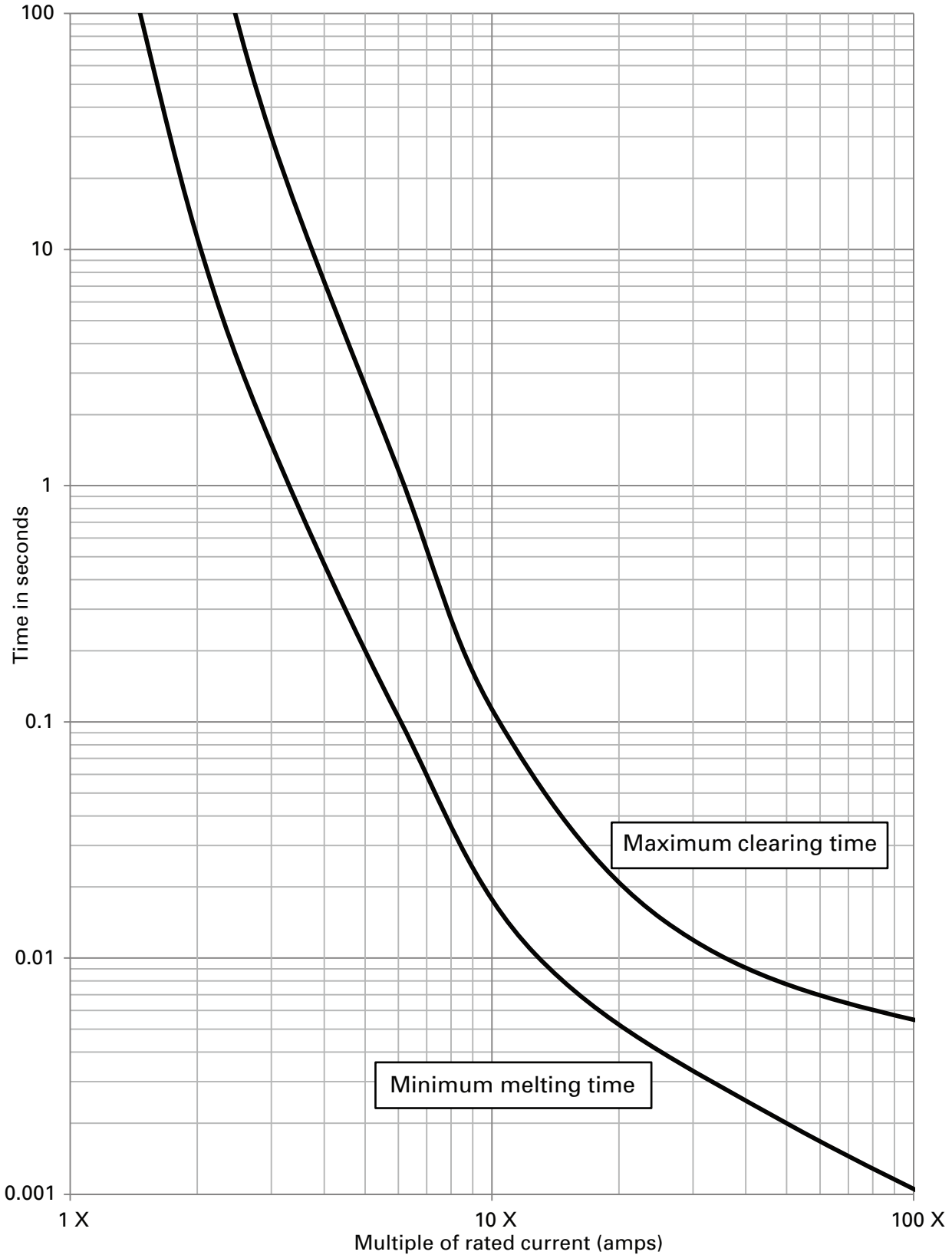
DC minimum melt / maximum clearing time-current curves — multiple of rated current

For catalog numbers EV10-5 to EV10-10 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms ± 0.5 ms

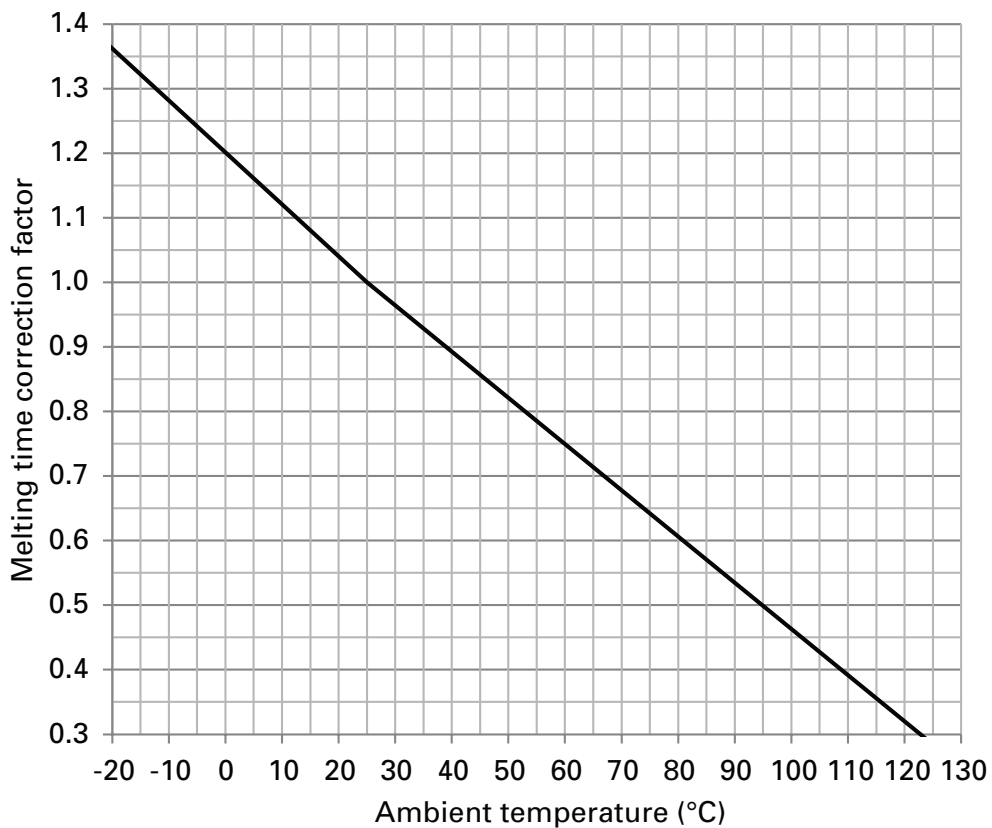


DC minimum melt / maximum clearing time-current curves — multiple of rated current

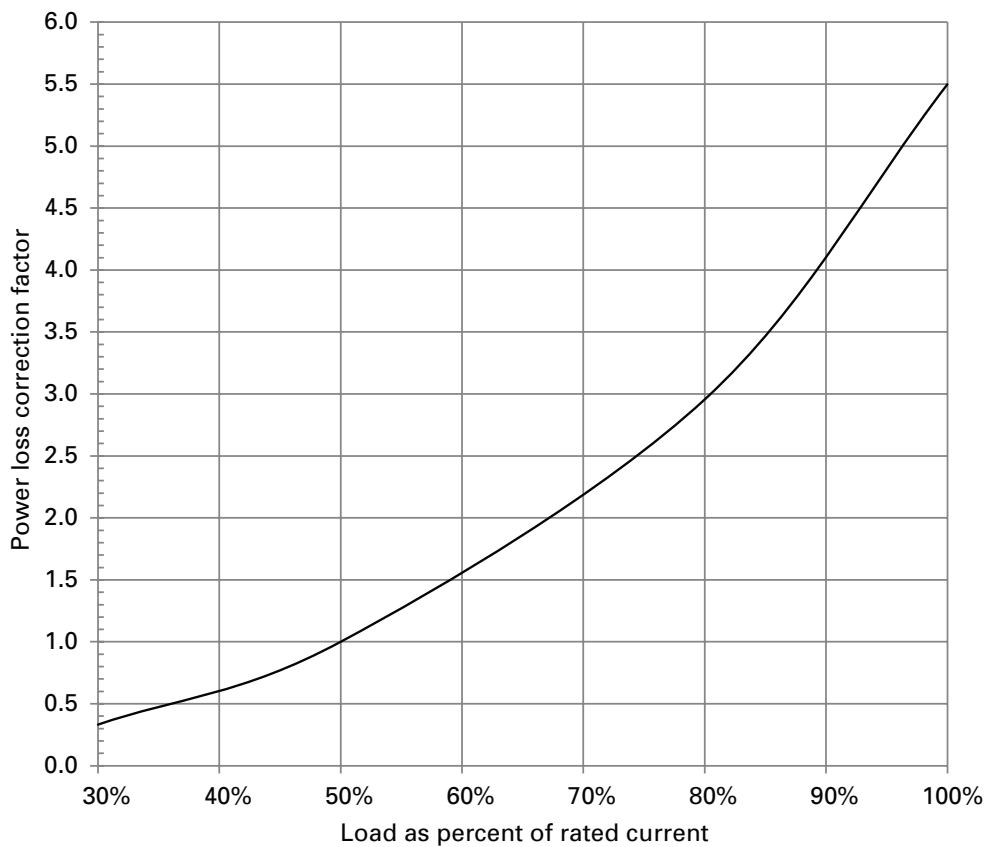
For catalog numbers EV10-20 to EV10-50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms ± 0.5 ms



Melting time correction factors



Power loss correction factors



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