

# Pre-production and sample electric vehicle auxiliary fuses — 500 Vdc, 5-50 A



### Terminal styles

- Ferrule
- Axial bolt-on
- Flush bolt-on
- PCB terminal
- 6.3 mm quick connect
- 6.3 mm reverse quick connect
- 9.5 mm quick connect

### Description

Eaton's Bussmann™ series Electric Vehicle (EV) full range fuses for protecting auxiliary electrical systems up to 500 Vdc in ratings from 20 to 50 amps.

### 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 IATF 16949 quality system for compliance with automotive requirements
- RoHS compliant
- REACH declaration available upon request

### 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

### Recommended fuseclip for ferrule fuses

- 1A3400-10-R (see data sheet no. 2131)

**Fuse ratings**

Fuse amps	Average @ 20 kA/500 Vdc		Power loss (W) @ 50%*
	Melting I <sup>2</sup> t	Clearing I <sup>2</sup> t	
20	761	1483	0.49
30	1150	2095	1.10
40	1720	3568	1.96
50	2740	5073	3.06

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

**Available pre-production fuse catalog numbers**

Catalog no./terminals				6.3 mm quick connect	6.3 mm reverse quick connect	9.5 mm quick connect	Amps
Ferrule	Axial bolt-on	Flush bolt-on	PCB solder				
XEV10-5	XEV10-5-B	XEV10-5-T	N/A	N/A	N/A	N/A	5
XEV10-7.5	XEV10-7.5-B	XEV10-7.5-T	N/A	N/A	N/A	N/A	7.5
XEV10-10	XEV10-10-B	XEV10-10-T	XEV10-10-1P	XEV10-10-P	XEV10-10-RP	N/A	10
XEV10-20	XEV10-20-B	XEV10-20-T	XEV10-20-1P	XEV10-20-P	XEV10-20-RP	N/A	20
XEV10-30	XEV10-30-B	XEV10-30-T	XEV10-30-1P	XEV10-30-P	XEV10-30-RP	N/A	30
XEV10-40	XEV10-40-B	XEV10-40-T	XEV10-40-1P	XEV10-40-P	XEV10-40-RP	N/A	40
XEV10-50	XEV10-50-B	XEV10-50-T	XEV10-50-1P	XEV10-50-P	XEV10-50-RP	XEV10-50-P9	50

**To order, contact your local Bussmann product sales representative or Bussmann Customer Service**

Phone: 855-BUSSMANN (855-287-7626) M—F, 7:00 a.m. — 6:00 p.m., Central time

Email: BussCustSat@Eaton.com

For information on production fuses, contact your local Bussmann product sales representative.

**Dimensions† — mm (nominal values)**

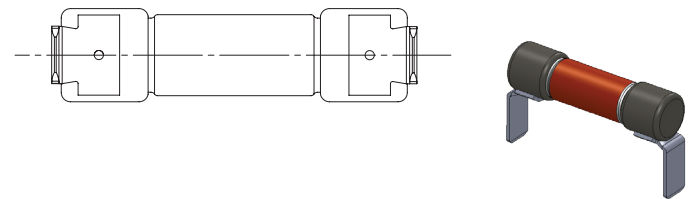
**10x38 mm ferrule**



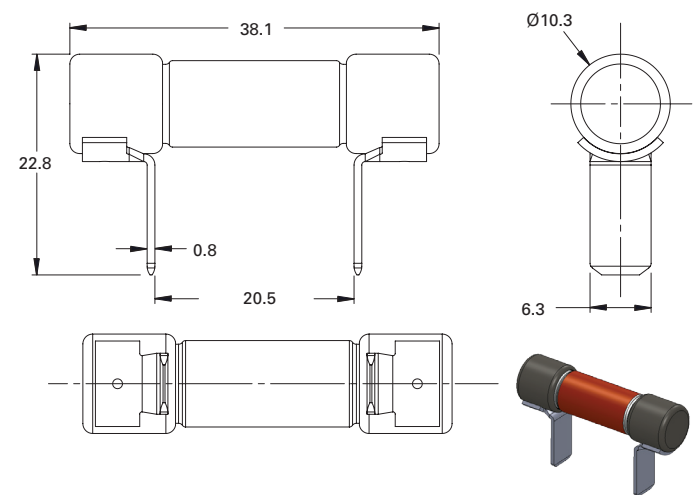
**6.3 mm quick connect**



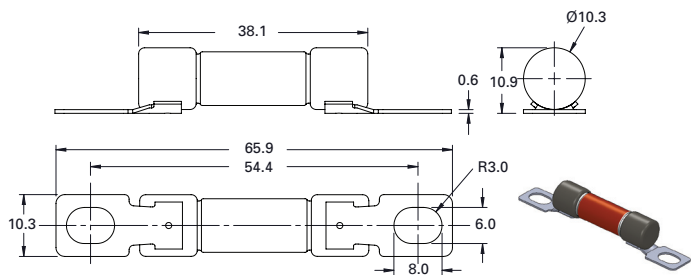
**10x38 mm axial bolt-on**



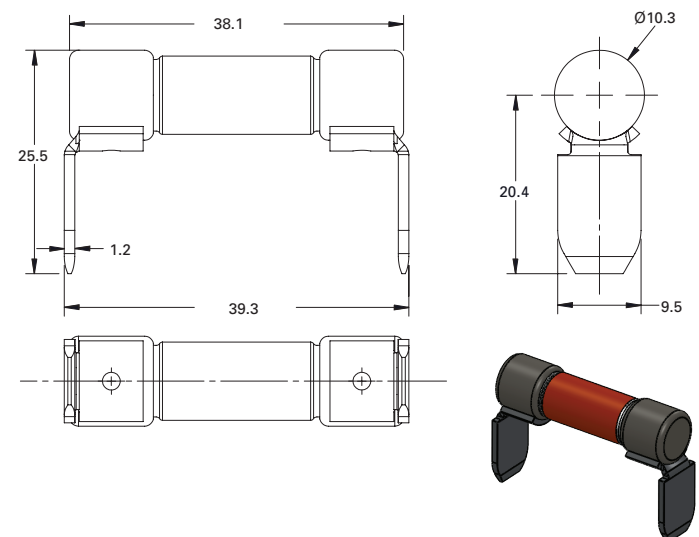
**6.3 mm reverse quick connect**



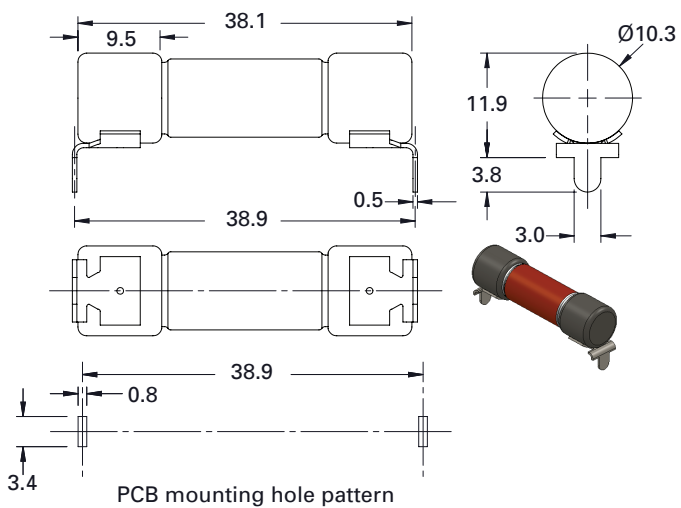
**10x38 mm flush bolt-on**



**9.5 mm quick connect**



**10x38 mm PCB terminal**



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

For 20 to 50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms  $\pm$  0.5 ms



**Melting time correction factors**



**Power loss correction factors**



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