

# 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)<br>@ 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](mailto:BussCustSat@Eaton.com)

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

**Dimensions† — mm (nominal values)**

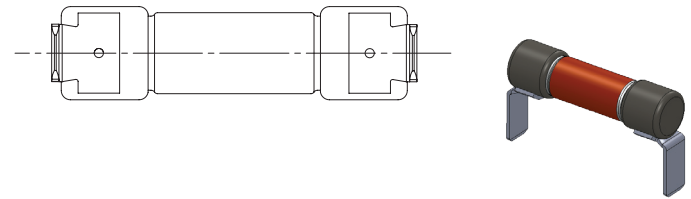
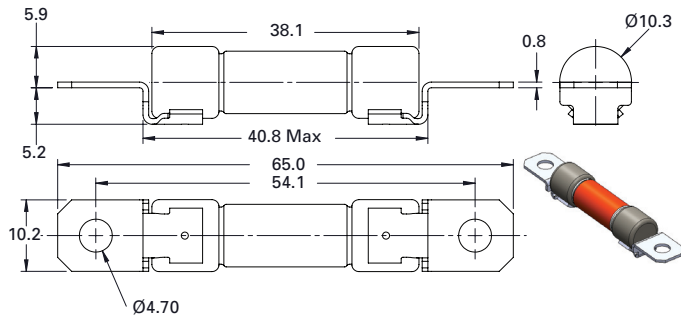
**10x38 mm ferrule**



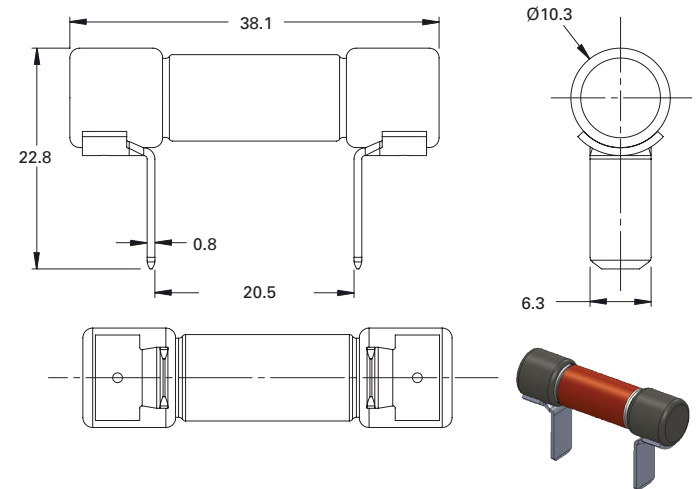
**6.3 mm quick connect**



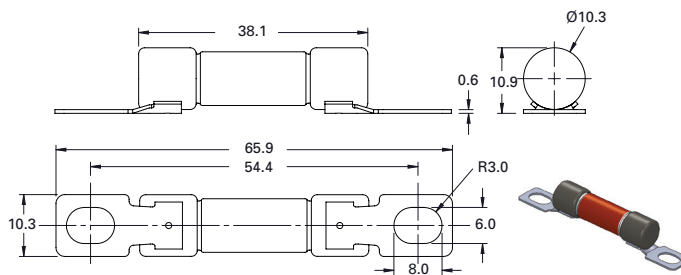
**10x38 mm axial bolt-on**



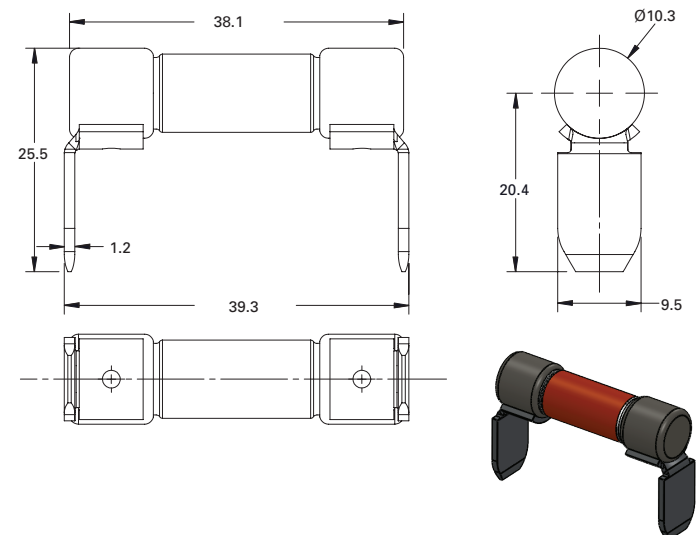
**6.3 mm reverse quick connect**



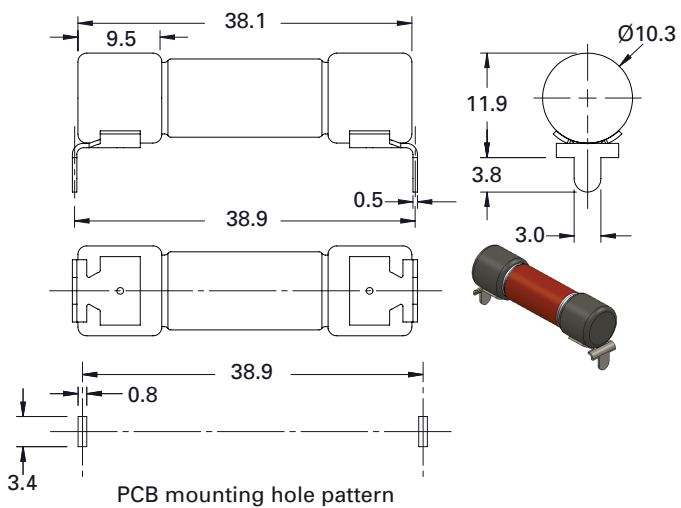
**10x38 mm flush bolt-on**



**9.5 mm quick connect**



**10x38 mm PCB terminal**

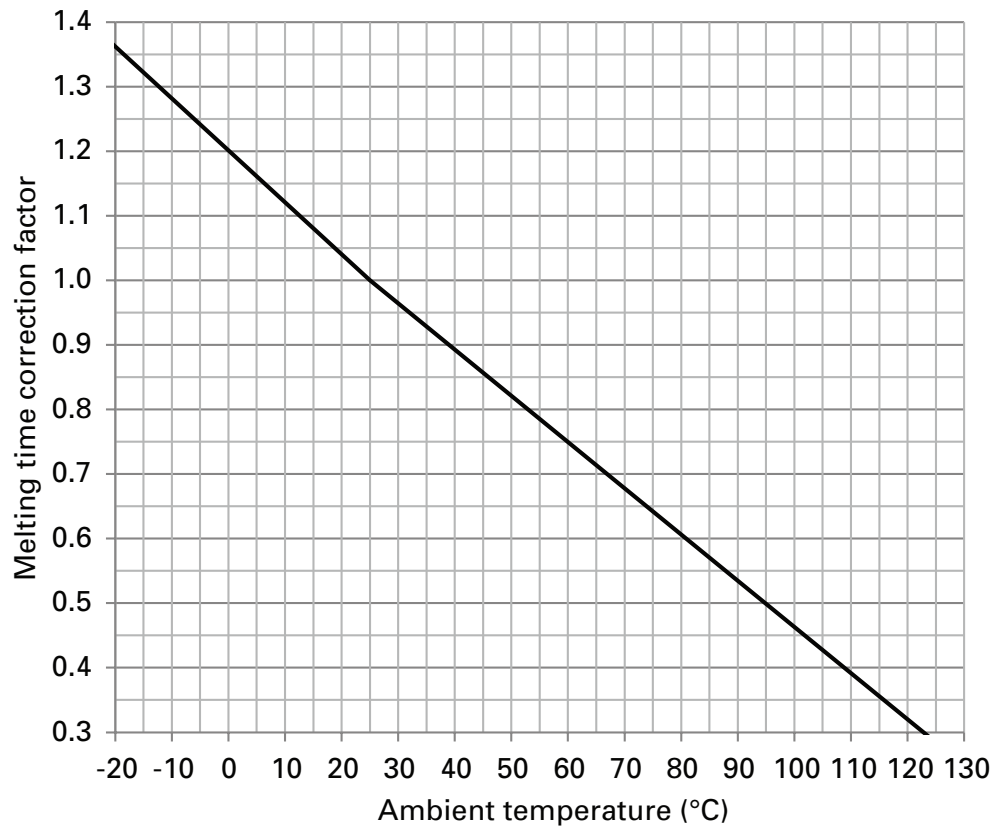


**DC minimum melt / maximum clearing time-current curves – multiple of rated current**

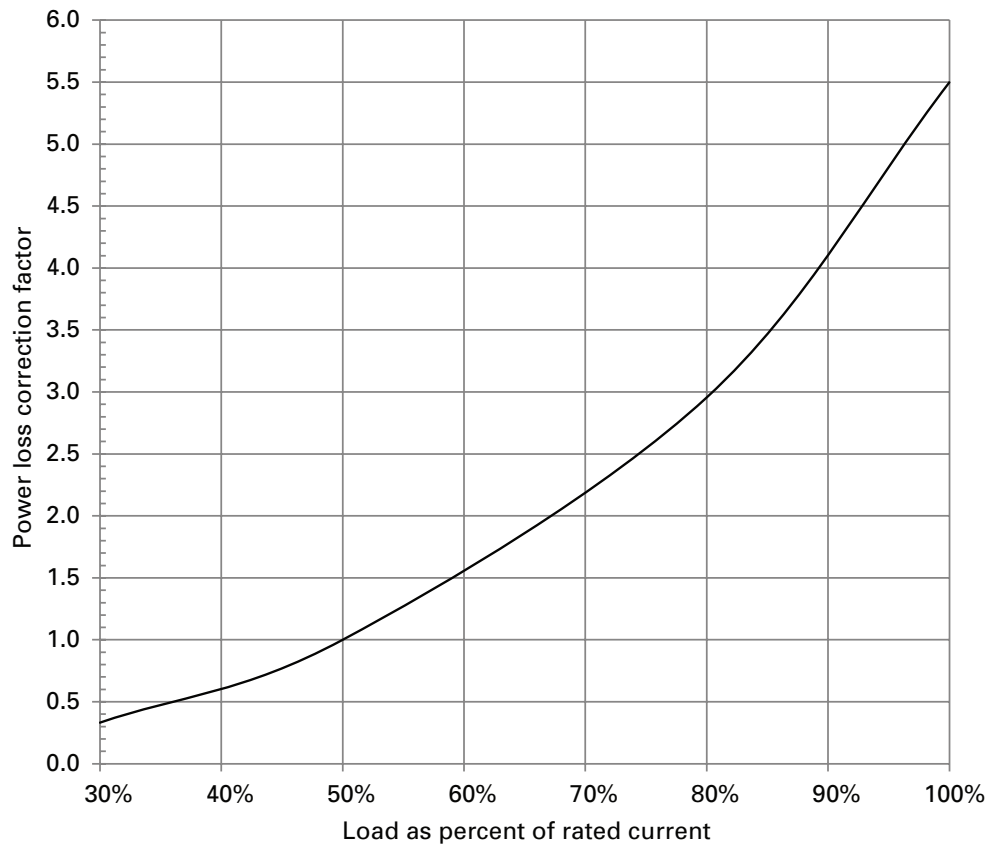
For 20 to 50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms ± 0.5 ms



**Melting time correction factors**



**Power loss correction factors**



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#### Как с нами связаться

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