

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 ² t | Clearing I ² 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



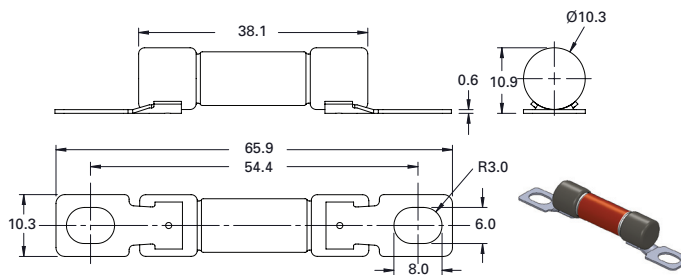
10x38 mm axial bolt-on



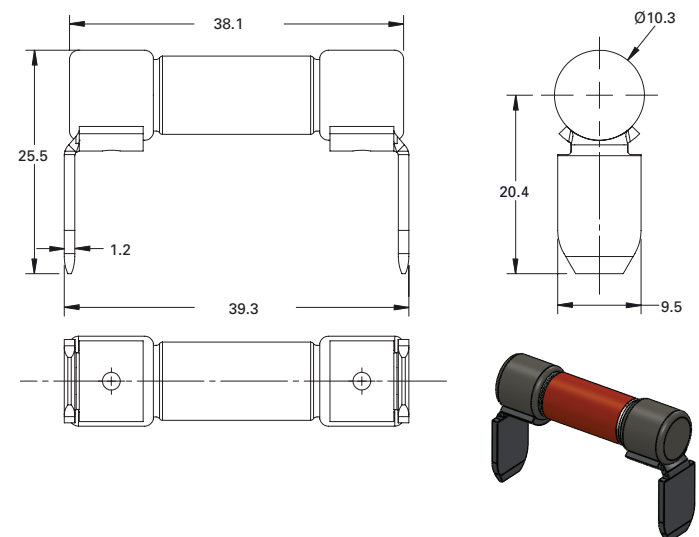
6.3 mm reverse quick connect



10x38 mm flush bolt-on



9.5 mm quick connect



10x38 mm PCB terminal



PCB mounting hole pattern

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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