

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

















- 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**

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

<sup>\* 50</sup> percent of fuse label amp rating tested at 23°C  $\pm$  2°C.

#### Available pre-production fuse catalog numbers

Catalog no./terminals				_ 6.3 mm guick	6.3 mm reverse	9.5 mm guick	
Ferrule	Axial bolt-on	Flush bolt-on	PCB solder	connect	quick connect	connect	Amps
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

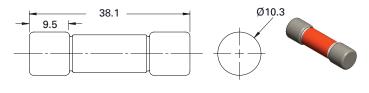
Phone: 855-BUSSMANN (855-287-7626) M—F, 7:00 a.m. — 6:00 p.m., Central time

Email: BussCustSat@Eaton.com

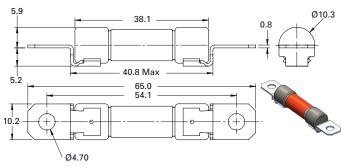
For information on production fuses, contact your local Bussmann product sales representative.

#### Dimensions<sup>†</sup> - mm (nominal values)

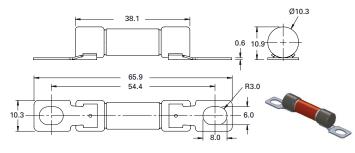
#### 10x38 mm ferrule



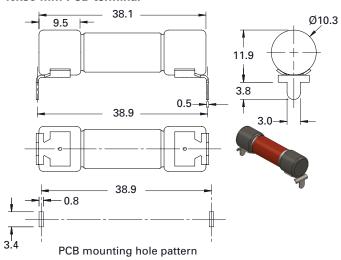
#### 10x38 mm axial bolt-on



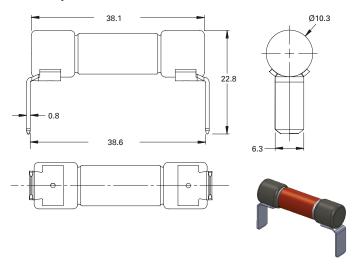
#### 10x38 mm flush bolt-on



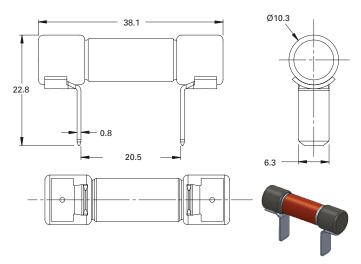
#### 10x38 mm PCB terminal



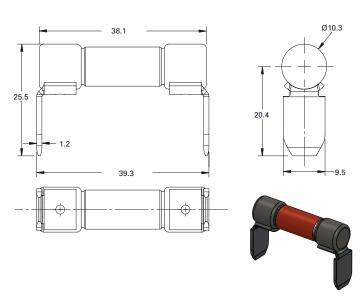
#### 6.3 mm quick connect



#### 6.3 mm reverse quick connect

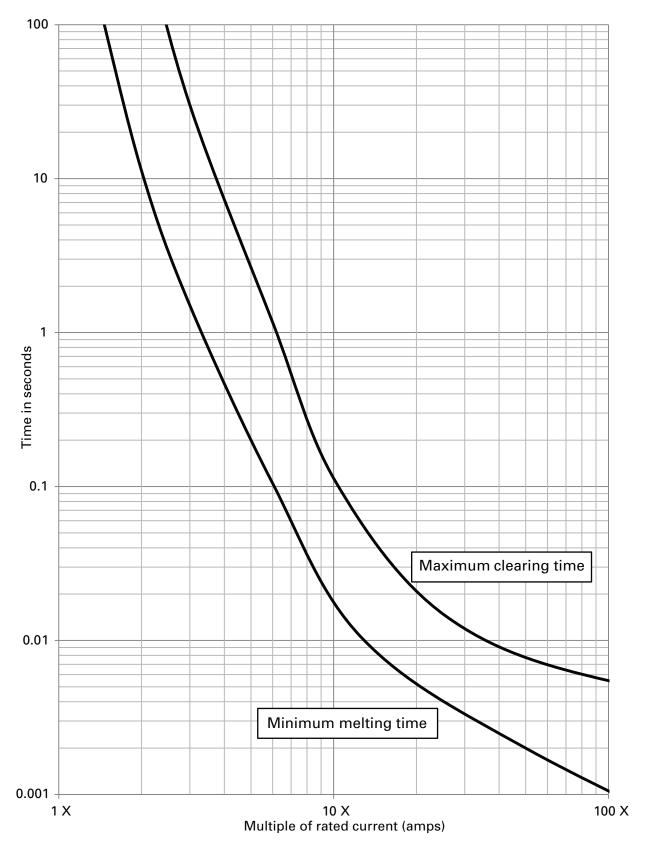


#### 9.5 mm quick connect

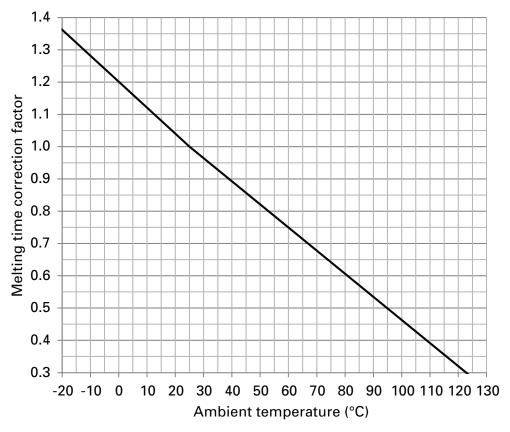


#### DC minimum melt / maximum clearing time-current curves — multiple of rated current

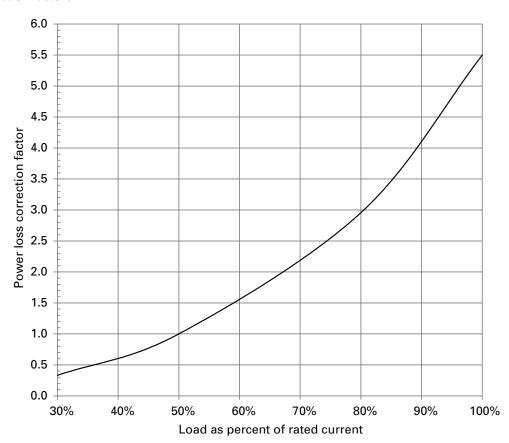
For 20 to 50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms  $\pm$  0.5 ms



#### Melting time correction factors



#### **Power loss correction factors**



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