Pre-production and sample electric vehicle auxiliary fuses — 500 Vdc, 10-50 A

Effective April 2023















- 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 10 to 50 amps.

Ratings

- · Volts 500 Vdc
- **Amps**
 - 10-50 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 IATF16949 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 ² t	Clearing I ² t	@ 50%*	
10				
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 \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
XEV10-10	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-P	XEV10-40-RP	N/A	40
XEV10-50	XEV10-50-B	XEV10-50-T	- -	XEV10-50-P	XEV10-50-RP	XEV10-50-P9	50

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

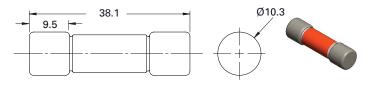
Phone: 855-BUSSMANN (855-287-7626) M—F, 7:00 a.m. — 5:00 p.m., Central time

Email: BussCustSat@Eaton.com

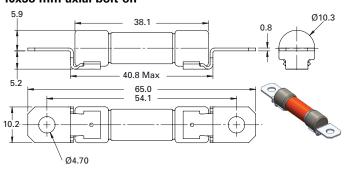
For information on production fuses, contact your local Bussmann product sales representative.

Dimensions[†] - mm (nominal values)

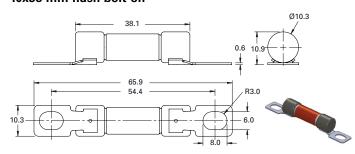
10x38 mm ferrule



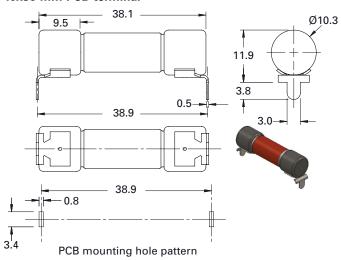
10x38 mm axial bolt-on



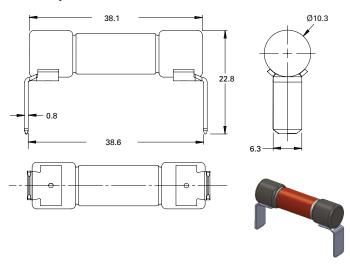
10x38 mm flush bolt-on



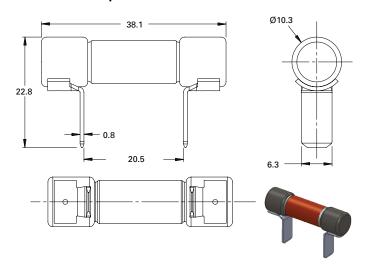
10x38 mm PCB terminal



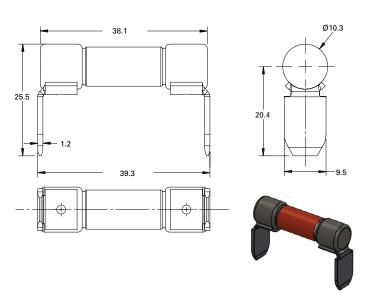
6.3 mm quick connect



6.3 mm reverse quick connect

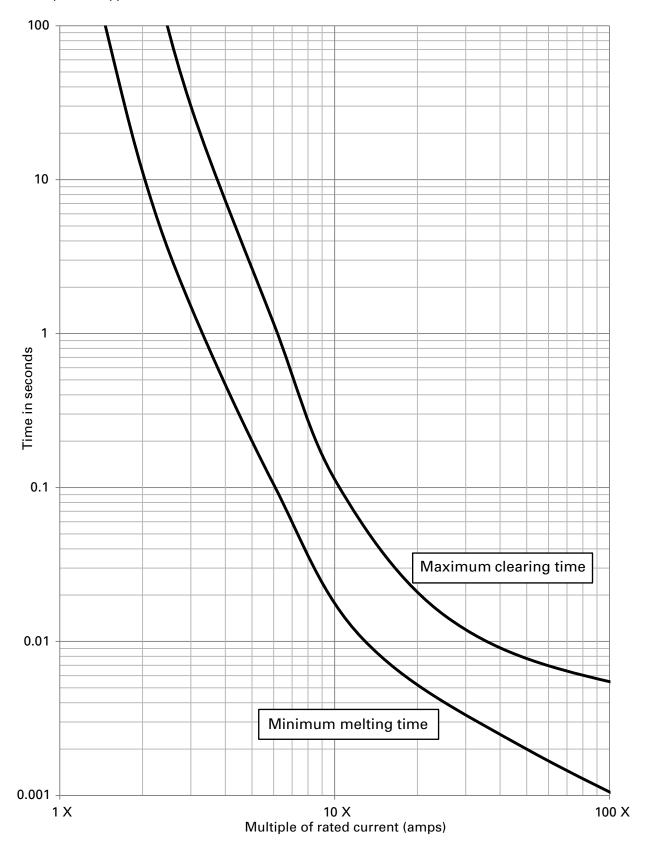


9.5 mm quick connect

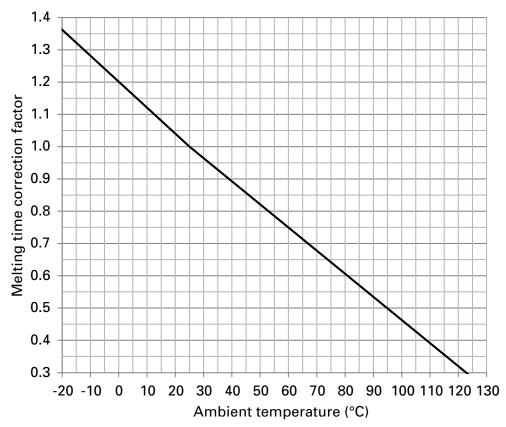


DC minimum melt / maximum clearing time-current curves - multiple of rated current

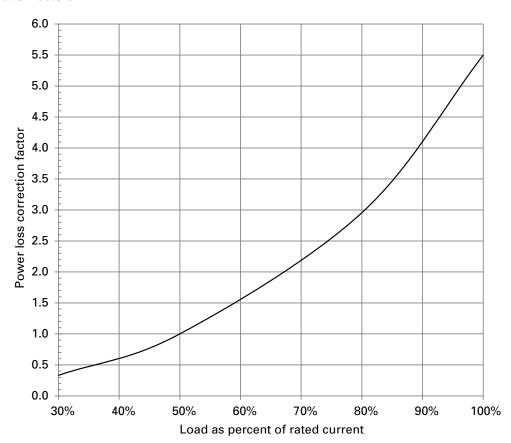
For 20 to 50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms \pm 0.5 ms



Melting time correction factors



Power loss correction factors



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Eaton 1000 Eaton Boulevard Cleveland, OH 44122 Eaton.com

Bussmann Division 114 Old State Road Ellisville, MO 63021 United States Eaton.com/bussmannseries

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