Electric vehicle auxiliary fuses — 500 Vdc, 5-50 A

RoHS



Catalog symbol:

- EV10-(amp) ferrule
- EV10-(amp)-B axial bolt-on
- EV10-(amp)-T flush bolt-on
- EV10-(amp)-1P PCB terminal

Description:

Eaton's Bussmann® series Electric Vehicle (EV) full range fuses for the protection of auxiliary electrical systems up to 500 Vdc in ratings from 5 to 50 amps.

Specifications:

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 TS16949 quality system for compliance with automotive requirements
- RoHS compliant
- REACH declaration available upon request

Packaging

- EV10-(amp) ferrule fuses
  - 10 per carton
  - 500 per container
- EV10-(amp)-1P PCB fuses
  - 10 per carton
  - 480 per container
- EV10-(amp)-B axial bolt-on fuses
  - 270 per container
- EV10-(amp)-T flush bolt-on fuses
  - 270 per container

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

Powering Business Worldwide

Downloaded from Arrow.com.

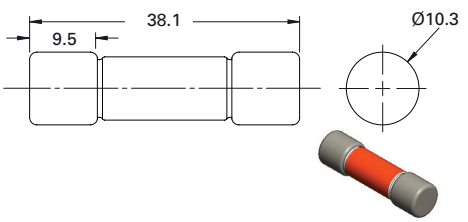
Catalog numbers:

Catalog no.					Average @ 20 kA/500 Vdc		
Ferrule	**Axial bolt-on**	**Flush bolt-on**	**PCB solder**	**Amps**	**Melting I²t**	**Clearing I²t**	**Power loss (W) @ 50%***
EV10-5	EV10-5-B	EV10-5-T	EV10-5-1P	5	70	84	0.36
EV10-7.5	EV10-7.5-B	EV10-7.5-T	EV10-7.5-1P	7.5	208	243	0.58
EV10-10	EV10-10-B	EV10-10-T	EV10-10-1P	10	321	411	0.62
EV10-20	EV10-20-B	EV10-20-T	EV10-20-1P	20	761	1483	0.49
EV10-30	EV10-30-B	EV10-30-T	EV10-30-1P	30	1150	2095	1.10
EV10-40	EV10-40-B	EV10-40-T	EV10-40-1P	40	1720	3568	1.96
EV10-50	EV10-50-B	EV10-50-T	EV10-50-1P	50	2740	5073	3.06

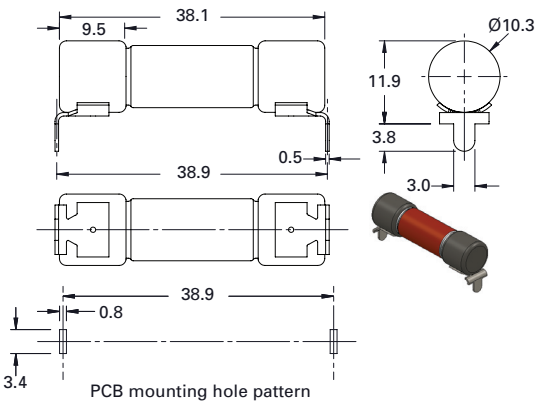
* 50 percent of fuse label amp rating tested at 23°C ± 2°C.

Dimensions† — mm:

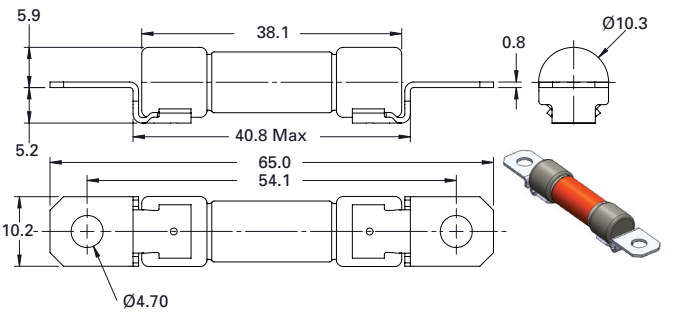
10x38 mm ferrule



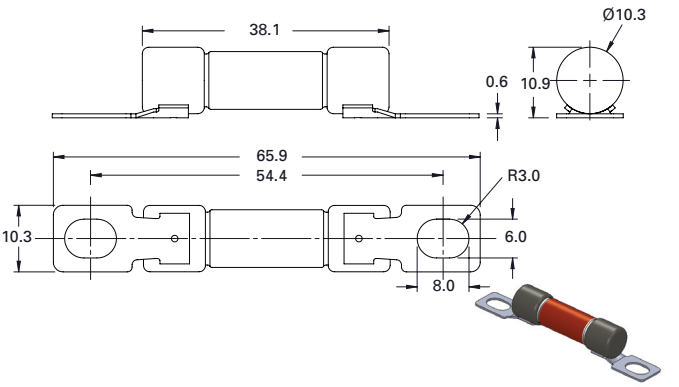
10x38 mm PCB terminal



10x38 mm axial bolt-on



10x38 mm flush bolt-on

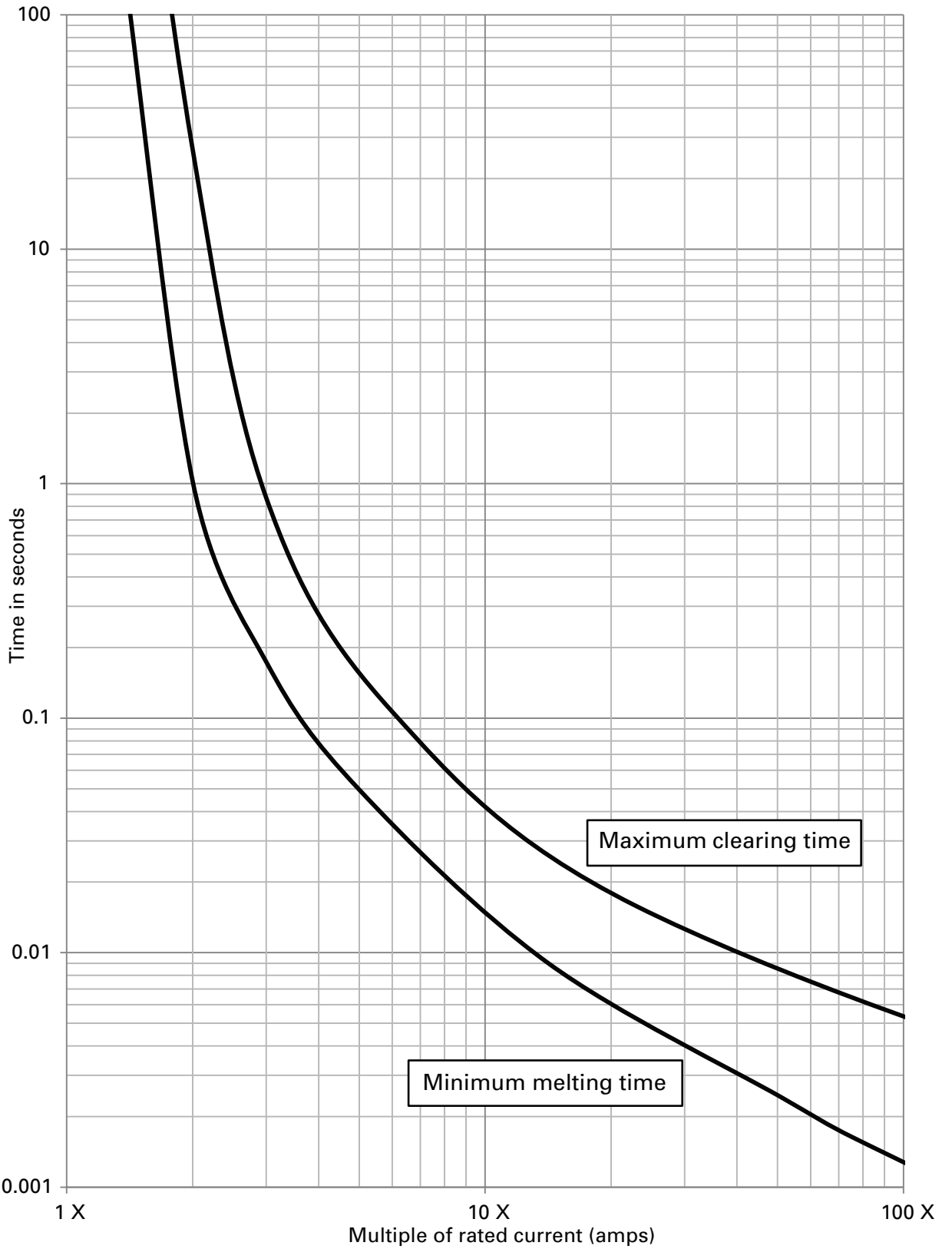


† Dimension are nominal values.

Downloaded from Arrow.com.

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

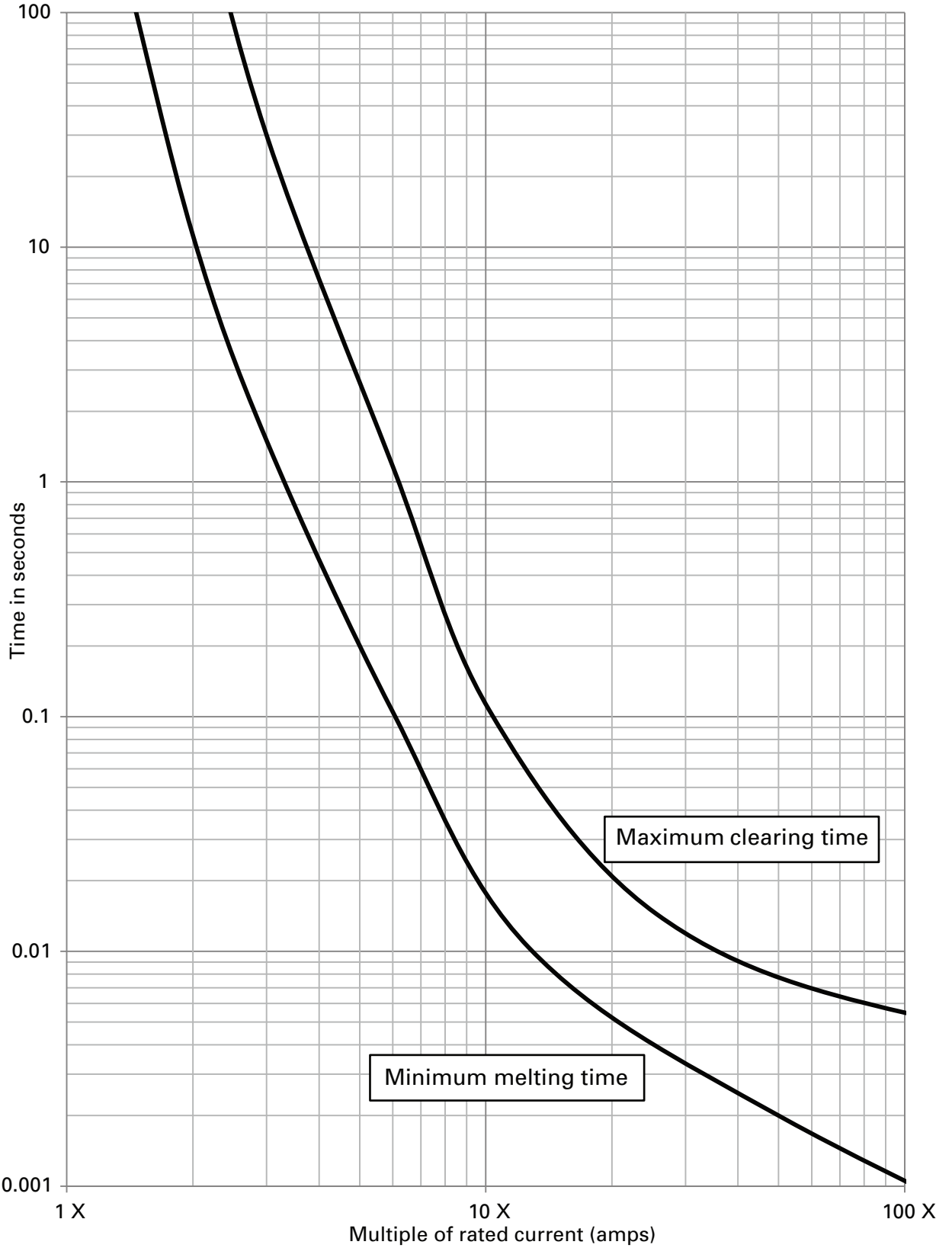
For catalog numbers EV10-5 to EV10-10 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms ± 0.5 ms



Downloaded from Arrow.com.

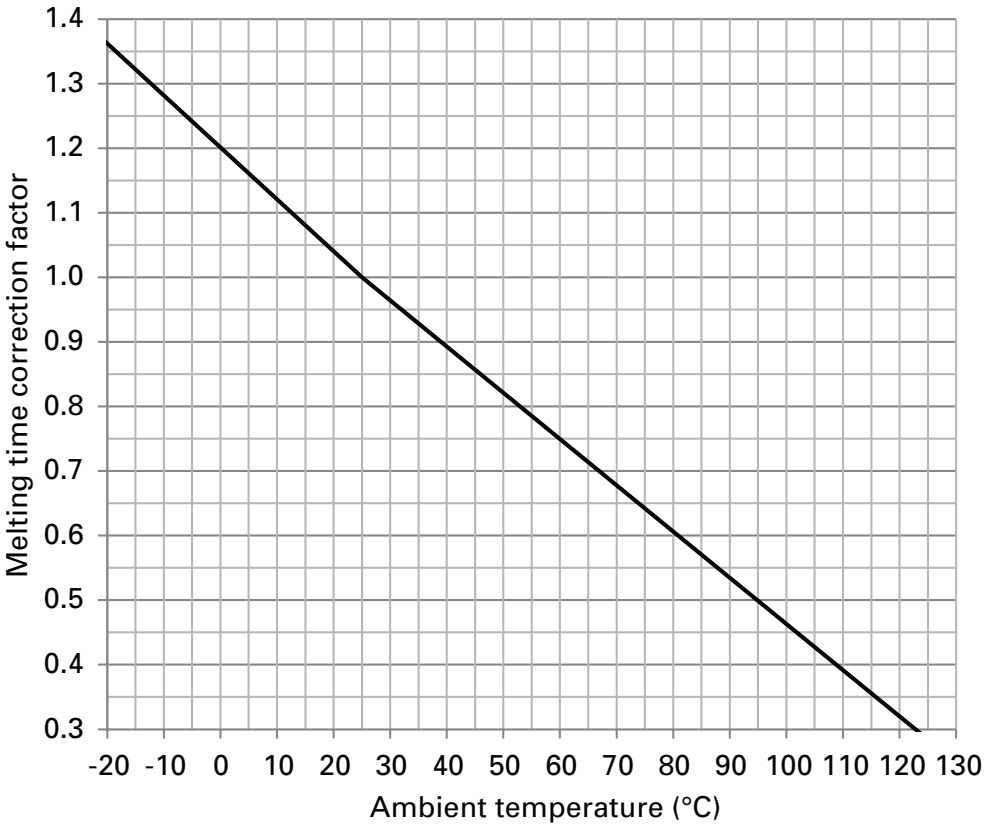
DC minimum melt / maximum clearing time-current curves — multiple of rated current

For catalog numbers EV10-20 to EV10-50 amp fuses supplied via DC rectifier @ 500 Vdc and time constant (L/R) 2 ms ± 0.5 ms

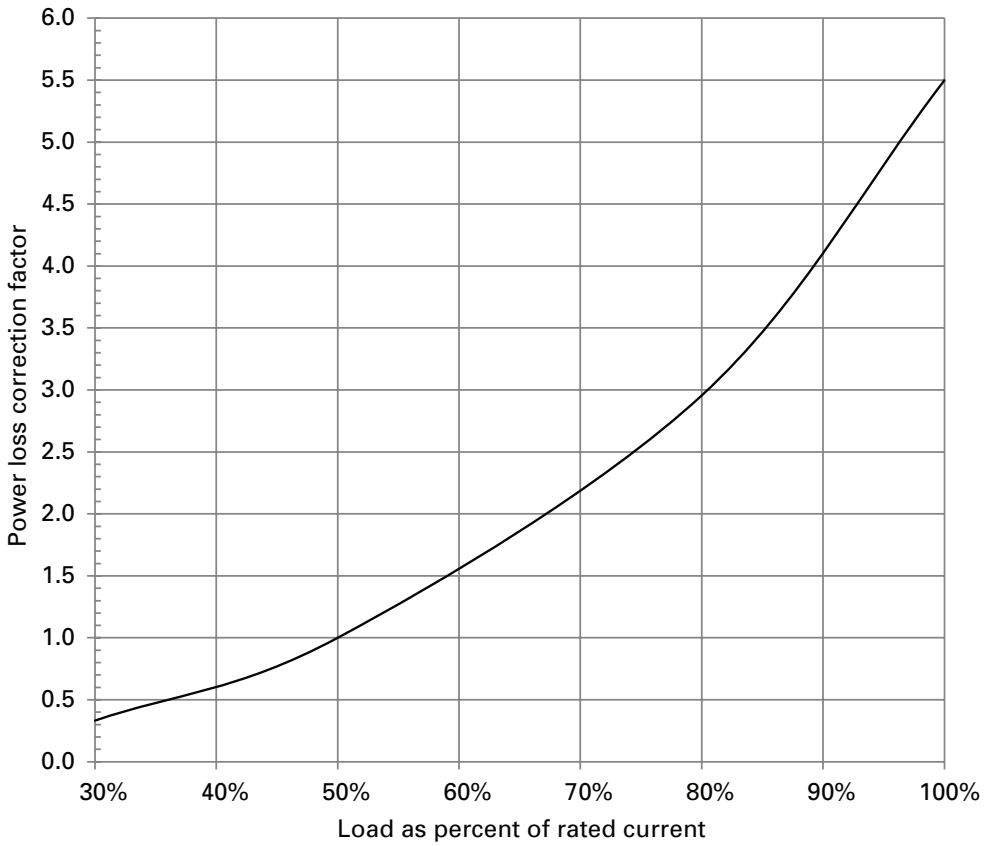


Downloaded from Arrow.com.

Melting time correction factors



Power loss correction factors



Downloaded from Arrow.com.

The only controlled copy of this data sheet is the electronic read-only version located on the Eaton network drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
Eaton.com

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

© 2017 Eaton
All Rights Reserved
Printed in USA
Publication No. 10564 — BU-MC16080
February 2017

Eaton and Bussmann are valuable trademarks of Eaton in the US and other countries. You are not permitted to use the Eaton trademarks without prior written consent of Eaton.

For Eaton's Bussmann series product information, call **1-855-287-7626** or visit: **Eaton.com/bussmannseries**

Follow us on social media to get the latest product and support information.

Powering Business Worldwide

Downloaded from Arrow.com.