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)
Technical Data 10864
Pre-production and sample electric vehicle auxiliary fuses

Effective December 2018

Fuse ratings

<table>
<thead>
<tr>
<th>Fuse amps</th>
<th>Average @ 20 kA/500 Vdc</th>
<th>Power loss (W) @ 50%*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Melting I t</td>
<td>Clearing I t</td>
</tr>
<tr>
<td>20</td>
<td>761</td>
<td>1483</td>
</tr>
<tr>
<td>30</td>
<td>1150</td>
<td>2095</td>
</tr>
<tr>
<td>40</td>
<td>1720</td>
<td>3568</td>
</tr>
<tr>
<td>50</td>
<td>2740</td>
<td>5073</td>
</tr>
</tbody>
</table>

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

Available pre-production fuse catalog numbers

<table>
<thead>
<tr>
<th>Catalog no./terminals</th>
<th>6.3 mm quick connect</th>
<th>6.3 mm reverse quick connect</th>
<th>9.5 mm quick connect</th>
<th>Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrule</td>
<td>Axial bolt-on</td>
<td>Flush bolt-on</td>
<td>PCB solder</td>
<td></td>
</tr>
<tr>
<td>XEV10-5</td>
<td>XEV10-5-B</td>
<td>XEV10-5-T</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>XEV10-7.5</td>
<td>XEV10-7.5-B</td>
<td>XEV10-7.5-T</td>
<td>N/A</td>
<td>7.5</td>
</tr>
<tr>
<td>XEV10-10</td>
<td>XEV10-10-B</td>
<td>XEV10-10-T</td>
<td>XEV10-10-1P</td>
<td>10</td>
</tr>
<tr>
<td>XEV10-20</td>
<td>XEV10-20-B</td>
<td>XEV10-20-T</td>
<td>XEV10-20-1P</td>
<td>20</td>
</tr>
<tr>
<td>XEV10-30</td>
<td>XEV10-30-B</td>
<td>XEV10-30-T</td>
<td>XEV10-30-1P</td>
<td>30</td>
</tr>
<tr>
<td>XEV10-40</td>
<td>XEV10-40-B</td>
<td>XEV10-40-T</td>
<td>XEV10-40-1P</td>
<td>40</td>
</tr>
<tr>
<td>XEV10-50</td>
<td>XEV10-50-B</td>
<td>XEV10-50-T</td>
<td>XEV10-50-1P</td>
<td>50</td>
</tr>
</tbody>
</table>

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.
Pre-production and sample electric vehicle auxiliary fuses

**Technical Data 10864**
Effective December 2018

**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

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
Pre-production and sample electric vehicle auxiliary fuses

Melting time correction factors

![Melting time correction factor graph]

Power loss correction factors

![Power loss correction factor graph]
Pre-production and sample electric vehicle auxiliary fuses

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.

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.