DFJ Class J high speed fuses

Catalog symbol:
- DFJ-

Description:
The Bussmann™ series DFJ drive fuse is a high speed, current-limiting fuse that provides maximum protection for AC and DC drives and controllers and meet NEC® branch circuit protection requirements. The drive fuse has the lowest I²t of any branch circuit fuse to protect power semiconductor devices that utilize diodes, GTOs, SCRs and SSRs.

Specifications:

Ratings
- Volts
  - 600Vac (or less)
  - 450Vdc (or less, 15-600A)
- Amps 1-600A
- IR
  - 200kA RMS Sym.
  - 100kA DC

Agency information
- UL® Listed Standard 248-8, Class J, Guide JDDZ, File E4273
- CSA® Certified, C22.2 No. 248.8, Class 1422-02, File 53787
- RoHS compliant
- CE

Features:
- Easily coordinated with existing and new variable speed drives and electric controllers.
- Standard Class J dimensions allow using readily available fuse blocks, holders and switches.
- Has the lowest let-through energy of any branch circuit overcurrent protective device.

Typical applications
- Protection of AC and DC drives
- Equipment using power semiconductor devices

Catalog numbers (amps):
- DFJ-1
- DFJ-15
- DFJ-60
- DFJ-200
- DFJ-2
- DFJ-17.5
- DFJ-70
- DFJ-225
- DFJ-3
- DFJ-20
- DFJ-80
- DFJ-250
- DFJ-4
- DFJ-25
- DFJ-90
- DFJ-300
- DFJ-5
- DFJ-30
- DFJ-100
- DFJ-350
- DFJ-6
- DFJ-35
- DFJ-110
- DFJ-400
- DFJ-8
- DFJ-40
- DFJ-125
- DFJ-450
- DFJ-10
- DFJ-45
- DFJ-150
- DFJ-500
- DFJ-12
- DFJ-45
- DFJ-175
- DFJ-600

Carton quantity:
- Amp rating
- Carton qty.
  - 1–60
  - 70–200
  - 225–600
  - 10
  - 5
Electrical characteristics:

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>Amps</th>
<th>I^2t (A^2 Sec) @ 600Vac/100kA Pre-arc Clearing Watts loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFJ-15</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>DFJ-20</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>DFJ-25</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>DFJ-30</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>DFJ-35</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td>DFJ-40</td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td>DFJ-50</td>
<td>50</td>
<td>140</td>
</tr>
<tr>
<td>DFJ-60</td>
<td>60</td>
<td>290</td>
</tr>
<tr>
<td>DFJ-70</td>
<td>70</td>
<td>450</td>
</tr>
<tr>
<td>DFJ-80</td>
<td>80</td>
<td>650</td>
</tr>
<tr>
<td>DFJ-90</td>
<td>90</td>
<td>1010</td>
</tr>
<tr>
<td>DFJ-100</td>
<td>100</td>
<td>1460</td>
</tr>
<tr>
<td>DFJ-110</td>
<td>110</td>
<td>1710</td>
</tr>
<tr>
<td>DFJ-125</td>
<td>125</td>
<td>3580</td>
</tr>
<tr>
<td>DFJ-150</td>
<td>150</td>
<td>5080</td>
</tr>
<tr>
<td>DFJ-175</td>
<td>175</td>
<td>6310</td>
</tr>
<tr>
<td>DFJ-200</td>
<td>200</td>
<td>8950</td>
</tr>
<tr>
<td>DFJ-225</td>
<td>225</td>
<td>11,420</td>
</tr>
<tr>
<td>DFJ-250</td>
<td>250</td>
<td>17,000</td>
</tr>
<tr>
<td>DFJ-300</td>
<td>300</td>
<td>23,500</td>
</tr>
<tr>
<td>DFJ-350</td>
<td>350</td>
<td>38,800</td>
</tr>
<tr>
<td>DFJ-400</td>
<td>400</td>
<td>62,200</td>
</tr>
<tr>
<td>DFJ-450</td>
<td>450</td>
<td>44,600</td>
</tr>
<tr>
<td>DFJ-500</td>
<td>500</td>
<td>79,500</td>
</tr>
<tr>
<td>DFJ-600</td>
<td>600</td>
<td>138,000</td>
</tr>
</tbody>
</table>

Recommended fuse blocks and holders:

- **Pyramid** blocks (data sheet No. 1108)
  - up to 30  JP60030-3
  - up to 100  JP60100-3
  - up to 200  JP60200-3
  - up to 300  JP60300-3
  - up to 400  JP60400-3
  - up to 500  JP60500-3
  - up to 600  JP60600-3

- **CH** holders (data sheet No. 2144)
  - up to 30  CH30J1
  - up to 60  CH30J2
  - up to 100  CH30J3

- **Safety J** holders (data sheet No. 1152)
  - up to 30  JT60030
  - up to 60  JT60060

- **JM modular fuse blocks** (data sheet No. 3192 and 10289)
  - up to 30  JM60030-1
  - up to 60  JM60060-1CR
  - up to 100  JM60100-1CR
  - up to 30  JM60030-2
  - up to 60  JM60060-2CR
  - up to 100  JM60100-2CR
  - up to 30  JM60030-2CR
  - up to 60  JM60060-3CR
  - up to 100  JM60100-3CR

- **JM power distribution fuse blocks** (data sheet No. 10192)
  - up to 30  JM60030-1MW
  - up to 60  JM60060-1MW
  - up to 100  JM60100-1MW
  - up to 30  JM60030-2MW
  - up to 60  JM60060-2MW
  - up to 100  JM60100-2MW
  - up to 30  JM60030-3MW
  - up to 60  JM60060-3MW
  - up to 100  JM60100-3MW

* Lineside dual box lug terminal.
DFJ Class J high speed fuses

Time-current curves — average melt

Current in amps

Time in seconds

Eaton.com/bussmannseries
Current-limitation curves

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.