Surge Protection Devices

Section Contents                            Page
TVS voltage surge suppressors  406
TVSS surge protection limiters  407
Voltage Surge Protectors

TVS — Cooper Bussmann® Surge

Specifications
Description: DIN rail mount voltage surge protection system for AC or DC voltage using diode or MOV technology.
Dimensions: See Dimensions illustration.

Construction:
Suppressor Module: 20% glass-filled PES (Polyethersulfone) case with 110 copper terminals with electroless tin plating.
DIN Rail Mount Holder: 15% glass-filled PBT (Polybutylene terephthalate) case with electroless tin-plated CDA 7025 interface clips lubricated with fluoroether grease, copper box lugs and stainless steel DIN rail springs.

Ratings*:
Volts:  
— 12Vdc (2kA surge current)  
— 24Vdc (2kA surge current)  
— 48Vdc (2kA surge current)  
— 120Vac (7kA-18kA surge current)  
— 240Vac (7kA-18kA surge current)

* See Catalog Numbers table for all specifications pertaining to specific voltage ratings.

Agency Information: UL Recognized (UL 1449) for AC products, (UL 497B) for DC products, CSA Approved.

Dimensions - in (mm)

Suppressor Module
A. 1.88 (47.75)  
B. 0.75 (19.05)  
C. 1.00 (25.40)  
D. 0.31 (7.94)  
E. 0.04 (1.02)  
F. 0.63 (15.88)  
G. 0.27 (6.86)

DIN Rail Mount Holder
H. 2.30 (58.42)  
I. 0.76 (19.30)  
J. 1.27 (32.18)  
K. 0.15 (3.81)

Catalog Numbers

<table>
<thead>
<tr>
<th>Catalog Numbers</th>
<th>Voltage Application</th>
<th>MCOV</th>
<th>Technology</th>
<th>SVR 500A, 6x20µs</th>
<th>Surge Current Rating</th>
<th>Agency Information</th>
<th>Label Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVS12DCD</td>
<td>12Vdc</td>
<td>14Vdc</td>
<td>SASD</td>
<td>36Vdc</td>
<td>2kA</td>
<td>UL 497B</td>
<td>Red</td>
</tr>
<tr>
<td>TVS24DCD</td>
<td>24Vdc</td>
<td>28Vdc</td>
<td>SASD</td>
<td>58Vdc</td>
<td>2kA</td>
<td>UL 497B</td>
<td>White</td>
</tr>
<tr>
<td>TVS48DCD</td>
<td>48Vdc</td>
<td>57Vdc</td>
<td>SASD</td>
<td>90Vdc</td>
<td>2kA</td>
<td>UL 497B</td>
<td>Black</td>
</tr>
<tr>
<td>TVS120ACD</td>
<td>120Vac</td>
<td>140Vac</td>
<td>SASD</td>
<td>330Vac</td>
<td>18kA</td>
<td>UL 1449</td>
<td>Blue</td>
</tr>
<tr>
<td>TVS120ACM</td>
<td>120Vac</td>
<td>140Vac</td>
<td>MOV</td>
<td>500Vac</td>
<td>18kA</td>
<td>UL 1449</td>
<td>Grey</td>
</tr>
<tr>
<td>TVS240ACD</td>
<td>240Vac</td>
<td>280Vac</td>
<td>SASD</td>
<td>600Vac</td>
<td>7kA</td>
<td>UL 1449</td>
<td>Blue</td>
</tr>
<tr>
<td>TVS240ACM</td>
<td>240Vac</td>
<td>280Vac</td>
<td>MOV</td>
<td>800Vac</td>
<td>18kA</td>
<td>UL 1449</td>
<td>Grey</td>
</tr>
</tbody>
</table>

Data Sheet: 9006

For product data sheets, visit www.cooperbussmann.com/datasheets/ulcsa
Surge Protection Limiters

**Specifications**

**Description:** Surge protection limiters designed to protect TVSS systems. Apply in conjunction with TVS voltage surge protector to provide complete surge protection. Able to withstand 8x20 μSec surge pulses without opening. Limiters are identified by a surge rating and not continuous current rating. Available with optional printed circuit board tabs.

**Dimensions:** See Dimensions illustration.

**Construction:** Melamine tube with nickel-plated brass end caps.

**Ratings*:**

- Volts: — 600Vac
- IR: — 200kA RMS Sym.

* See Catalog Numbers table for all specifications pertaining to specific ratings.

**Agency Information:** CE, UL Recognized 600Vac, File E56412. Designed to protect TVSS systems per UL 1449 Second Edition requirements.

**Features and Benefits**

- Optional tabs for mounting on printed circuit board.

---

**Catalog Numbers**

<table>
<thead>
<tr>
<th>Catalog Numbers</th>
<th>8x20μS Surge Rating</th>
<th>Melting Iₚ (A I Sec)</th>
<th>Clearing Iₚ (A I Sec)</th>
<th>Ipeak @ 100kA 60Hz (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVSS-5</td>
<td>5,000A</td>
<td>559</td>
<td>1,850</td>
<td>4,283</td>
</tr>
<tr>
<td>TVSS-10</td>
<td>10,000A</td>
<td>1,788</td>
<td>5,766</td>
<td>6,618</td>
</tr>
<tr>
<td>TVSS-15</td>
<td>15,000A</td>
<td>3,760</td>
<td>9,730</td>
<td>7,843</td>
</tr>
<tr>
<td>TVSS-20</td>
<td>20,000A</td>
<td>6,020</td>
<td>14,000</td>
<td>8,594</td>
</tr>
</tbody>
</table>

Above catalog numbers are available with printed circuit board tabs. When ordering, use suffix “-01”.

---

**Recommended fuse blocks/fuse holders for ⅜” x 1½” fuses**

— See Data Sheets

- Open fuse blocks - 1104, 2104
- Finger-safe fuse holders - 1109, 1102, 1103, 2053
- Panel-mount fuse holders - 2114, 2113, 2108
- In-line fuse holders - 2127, 2126
Fuse Kits & Accessories
Have Products on Hand to Make Electrical Service and Repair Faster and Safer