**Versatile Filtered Power Entry Module**

- Rated currents up to 10 A
- For one or two fuses
- Fuses Ø6.3 x 32 mm or Ø5 x 20 mm
- 2-pole rocker switch
- Voltage selector
- Optional earth line choke (E type)

**Performance indicators**

**Attenuation performance**

<table>
<thead>
<tr>
<th>Standard</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current [A]</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Technical specifications**

- **Maximum continuous operating voltage**: 250 VAC, 50/60 Hz
- **Operating frequency**: DC to 400 Hz
- **Rated currents**: 1 to 10 A @ 40°C max.
- **High potential test voltage**: P -> PE 2000 VAC for 2 sec
- **Protection category**: IP 40 according to IEC 60529
- **Temperature range (operation and storage)**: -25°C to +85°C (25/85/21)
- **Flammability corresponding to**: UL 94V-2 or better
- **MTBF @ 40°C/230 V (Mil-HB-217F)**: 2,200,000 hours
- **Voltage selector description**
  - **Function**: Series/parallel
  - **Voltage marking**: Series 110-120 V, Parallel 220-240 V
- **Rocker switch description**
  - **Function**: 2-pole, dark not illuminated
  - **Marking I - 0**

**Electrical specifications**

- Inrush current: 51 A
- 6,000 on-off operations according to UL 1054, TV S 10,000 on-off operations according to ENEC
- 50,000 cycles

**Mechanical life**

- 50,000 cycles

**Switch ratings**

- USA (UL) and Canada (C-UL): 10 A, 125 VAC, 10 A, 250 VAC; 1/3 HP
- Europe (ENEC): 10 A (4 A), 250 VAC

**Approvals & Compliances**

- UL, CSA, ENEC, ROHS, CE, UK, CA

The FN 390 power entry module combines an IEC inlet, mains filter with single or dual-fuse holder, voltage selector and 2-pole rocker switch. Choosing FN 390 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptances. Standard IEC Connector filters are a practical solution helping you to pass EMI system approval in a short time. Multiple options designed to offer you the desired solution.

**Features and benefits**

- High conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Rear or front mounting
- Single or dual-fuse holder
- USA Ø6.3 x 32 mm or EU Ø5 x 20 mm fuses
- 2-pole rocker switch
- Voltage selector 110-120 V/220-240 V
- Custom-specific versions are available on request

**Typical applications**

- Portable electrical and electronic equipment
- Consumer goods
- EDP and office equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment

**Typical electrical schematic**

*Value in () relates to the inductive current charge: cos φ=0.65*
### Filter selection table

<table>
<thead>
<tr>
<th>Filter</th>
<th>Rated current @ 40°C (25°C)</th>
<th>Leakage current* @ 230 VAC/50 Hz</th>
<th>Inductance L1</th>
<th>Inductance L2</th>
<th>Capacitance Cx</th>
<th>Capacitance Cx1</th>
<th>Capacitance Cy</th>
<th>Resistance R</th>
<th>Output Fuses**</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN 393-1-05-11</td>
<td>1 (1.2)</td>
<td>560</td>
<td>7.5</td>
<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>1</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>FN 393-2.5-05-11</td>
<td>2.5 (3)</td>
<td>560</td>
<td>2</td>
<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>1</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>FN 393-6-05-11</td>
<td>6 (7.2)</td>
<td>560</td>
<td>0.45</td>
<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>2</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>FN 394-1-05-11</td>
<td>1 (1.2)</td>
<td>560</td>
<td>7.5</td>
<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>1</td>
<td>200</td>
<td></td>
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<tr>
<td>FN 394-2.5-05-11</td>
<td>2.5 (3)</td>
<td>560</td>
<td>2</td>
<td>220</td>
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<td>1000</td>
<td>05-11</td>
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<td>560</td>
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<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>2</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>FN 393 E-1-05-11</td>
<td>1 (1.2)</td>
<td>560</td>
<td>7.5</td>
<td>0.4</td>
<td>220</td>
<td>3.3</td>
<td>1000</td>
<td>05-11</td>
<td>1</td>
<td>205</td>
</tr>
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<td>1000</td>
<td>05-11</td>
<td>1</td>
<td>205</td>
</tr>
</tbody>
</table>

* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.
** Filters are delivered without fuse.

Note: for medical versions please contact your local partner within Schaffner's global network.

### Product selector

- **FN (1)39xx-yy-zz**
  - 05-11: Faston 6.3 x 0.8mm
  - 1 to 10: Rated current
  - Blank: Standard version
  - E: Optional earth line choke
  - 3: 1 fuse (05 x 20mm or 06.3 x 32mm)
  - 4: 2 fuses (05 x 20mm or 06.3 x 32mm)
  - Blank: Standard version
  - 1: Additional Cx1 capacitor and higher inductivity

For example: FN 393-1-05-11, FN 394 E-2.5-05-11, FN 1394-10-05-11
**Typical filter attenuation**

Per CISPR 17; A=50 Ω/50 Ω sym; B=50 Ω/50 Ω asym; C=0.1 Ω/100 Ω sym; D=100 Ω/0.1 Ω sym

- **FN 39x: 1 A types**
- **FN 39x: 2.5 A types**
- **FN 39x: 6 A types**

- **FN 139x: 1 A types**
- **FN 139x: 2.5 A types**
- **FN 139x: 6 and 10 A types**

**Mechanical data**

1 to 10 A types

Panel cut out
## Dimensions

<table>
<thead>
<tr>
<th></th>
<th>1 to 10 A</th>
<th>Tolerances</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>50</td>
<td>±0.3</td>
</tr>
<tr>
<td>B</td>
<td>65</td>
<td>±0.3</td>
</tr>
<tr>
<td>C</td>
<td>40</td>
<td>±0.1</td>
</tr>
<tr>
<td>D</td>
<td>70</td>
<td>±0.5</td>
</tr>
<tr>
<td>E</td>
<td>28.5</td>
<td>±0.3</td>
</tr>
<tr>
<td>F</td>
<td>5.5</td>
<td>±0.3</td>
</tr>
<tr>
<td>G</td>
<td>59.8</td>
<td>±0.2</td>
</tr>
<tr>
<td>H</td>
<td>Ø 3.3</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>13.5</td>
<td>±0.5</td>
</tr>
<tr>
<td>J</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>R ≤ 2.5</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>60</td>
<td>±0.5/-0</td>
</tr>
<tr>
<td>P</td>
<td>29</td>
<td>±0.5/-0</td>
</tr>
<tr>
<td>R</td>
<td>M3</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>90°</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>15</td>
<td>±0.3</td>
</tr>
</tbody>
</table>

All dimensions in mm; 1 inch=25.4 mm
Tolerances according: ISO 2768-m/EN 22768-m

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on filter connections.
To find your local partner within Schaffner's global network: www.schaffner.com

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