PCB-mounting filter

- Rated currents from 0.5 to 10 A
- Compact PCB-mountable design
- Low profile

### Performance indicators

<table>
<thead>
<tr>
<th>Attenuation performance</th>
<th>standard</th>
<th>high</th>
<th>very high</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current (A)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

### Technical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum continuous operating voltage</strong></td>
<td>250 VAC, 50/60 Hz</td>
</tr>
<tr>
<td><strong>Operating frequency</strong></td>
<td>DC to 400 Hz</td>
</tr>
<tr>
<td><strong>Rated currents</strong></td>
<td>0.5 to 10 A @ 40°C max.</td>
</tr>
<tr>
<td><strong>High potential test voltage</strong></td>
<td>P -&gt; PE 2000 VAC for 2 sec</td>
</tr>
<tr>
<td><strong>Temperature range (operation and storage)</strong></td>
<td>-25°C to +100°C (25/100/21)</td>
</tr>
<tr>
<td><strong>Design corresponding to</strong></td>
<td>UL 1283, CSA 22.2 No. B 1986, IEC/EN 60939</td>
</tr>
<tr>
<td><strong>Flammability corresponding to</strong></td>
<td>UL 94 V-0</td>
</tr>
<tr>
<td><strong>MTBF @ 40°C/230 V (Mil-HB-217F)</strong></td>
<td>1,600,000 hours</td>
</tr>
</tbody>
</table>

### Approvals

- UL®
- CSA
- I4
- ROHS

The FN 405 PCB filter is a single-phase filter designed for easy and fast PCB-mounting. Choosing the FN 405 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptance. Standard PCB single-phase filters are a practical solution helping you to pass EMI system approval in a short time. A selection on amperage ratings are designed to offer you the desired standard product.

### Features and benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- PCB through hole mounting
- Low profile
- Custom specific versions on request

### Typical applications

- Electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment

### Typical electrical schematic

[Typical electrical schematic diagram]
## 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 L [mH]</th>
<th>Capacitance Cy [nF]</th>
<th>Resistance connections</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN 405-0.5-02</td>
<td>0.5 (0.6)</td>
<td>373</td>
<td>24</td>
<td>15</td>
<td>2.2</td>
<td>-02</td>
</tr>
<tr>
<td>FN 405-1-02</td>
<td>1 (1.2)</td>
<td>373</td>
<td>10</td>
<td>15</td>
<td>2.2</td>
<td>-02</td>
</tr>
<tr>
<td>FN 405-3-02</td>
<td>3 (3.6)</td>
<td>373</td>
<td>2</td>
<td>15</td>
<td>2.2</td>
<td>-02</td>
</tr>
<tr>
<td>FN 405-6-02</td>
<td>6 (6.9)</td>
<td>373</td>
<td>0.8</td>
<td>15</td>
<td>2.2</td>
<td>-02</td>
</tr>
<tr>
<td>FN 405-10-02</td>
<td>10 (11.5)</td>
<td>373</td>
<td>0.5</td>
<td>15</td>
<td>2.2</td>
<td>-02</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.

### Product selector

For example: FN 405-0.5-02, FN 405-10-02

### 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

#### Mechanical data

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 connectors.
Headquarters, global innovation and development

To find your local partner within Schaffner's global network: www.schaffner.com

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