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>
<tr>
<td></td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Technical specifications

- **Maximum continuous operating voltage**: 250 VAC, 50/60 Hz
- **Operating frequency**: DC to 400 Hz
- **Rated currents**: 0.5 to 10 A @ 40°C max.
- **High potential test voltage**:
  - P → PE 2000 VAC for 2 sec
  - P → N 760 VAC for 2 sec
  - -25°C to +100°C (25/100/21)
- **Temperature range (operation and storage)**: -25°C to +100°C (25/100/21)
- **Design corresponding to**: UL 1283, CSA 22.2 No. B 1986, IEC/EN 60939
- **Flammability corresponding to**: UL 94 V-0
- **MTBF @ 40°C/230 V (Mil-HB-217F)**: 1,600,000 hours

Approvals & Compliances

- UL
- CSA
- IEC/EN
- 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
## 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</th>
<th>Capacitance** Cx</th>
<th>Capacitance** Cy</th>
<th>Resistance R</th>
<th>Input/Output 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>
<td>40</td>
<td></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>
<td>40</td>
<td></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>
<td>40</td>
<td></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>
<td>40</td>
<td></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>
<td>40</td>
<td></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.

** Tolerances apply: Inductance: ±30/±50%, Capacitance: ±20%, Resistance: ±10%
Headquarters, global innovation and development

Switzerland
Schaffner Group
Industrie Nord
Nordstrasse 11e
4542 Luterbach
T +41 32 681 66 26
info@schaffner.com

Sales and application centers

China
Schaffner EMC Ltd. Shanghai
T20-3 C, No 565 Chuangye Road, Pudong district
201201 Shanghai
T +86 21 3813 9500
cschina@schaffner.com
www.schaffner.com.cn

Finland
Schaffner Oy
Sauvonrinne 19 H
08500 Lohja
T +358 50 468 7284
finlandsales@schaffner.com

France
Schaffner EMC S.A.S.
16-20 Rue Louis Rameau
95875 Bezons
T +33 1 34 34 30 60
fessenews@schaffner.com

Germany
Schaffner Deutschland GmbH
Schoeppenlenstrasse 12B
76185 Karlsruhe
T +49 72 11 93 20
germanysales@schaffner.com

India
Schaffner India Pvt. Ltd
REGUS WORLD TRADE CENTRE
WTC, 22nd Floor Unit No 223B, Brigade Gateway Campus, 26/F,
Dr. Rajkumar Road
Malleshwaram (W)
560055 Bangalore
T +91 80 67935355
indiasales@schaffner.com

Italy
Schaffner EMC S.r.l.
Via Ticino, 30
20900 Monza (MB)
T +39 039 21 41 070
italysales@schaffner.com

Japan
Schaffner EMC K.K.
Taiju-Seimei Sangenjaya Bldg.
1-32-12, Kansuiuma, Setagaya-ku
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japanlationsales@schaffner.com
www.schaffner.jp

Singapore
Schaffner EMC Pte Ltd.
#05-09, Kg Ubi Ind. Estate
408705 Singapore
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain
Schaffner EMC España
Calle Calendula 93, Miniparcc III, Edificio E
El Soto de Moraleja, Alcobendas
28109 Madrid
T +34 917 912 900
F +34 917 912 901
spanishsales@schaffner.com

Sweden
Schaffner EMC AB
Ostermalmsgt 1
114 42 Stockholm
T +46 8 5050 2425
swedensales@schaffner.com

Switzerland
Schaffner EMV AG
Industrie Nord
Nordstrasse 11e
4542 Luterbach
T +41 32 681 66 88
T +41 32 681 66 26
switzerlandsales@schaffner.com

Taiwan
Schaffner EMV Ltd.
20 Floor-2, No 97, Section 1, XinTai 5th Road
22175 Xizhi District New Taipei City 22175
T +886 2 2697 5500
F +886 2 2697 5533
taiwansales@schaffner.com

Thailand
Schaffner EMC Co. Ltd.
Northern Region Industrial Estate
67 Moo 4 Tambon Ban Klang
Amphur Muang P.O. Box 14
51000 Lamphun
T +66 53 58 11 04
F +66 53 58 10 19
thailandsales@schaffner.com

United Kingdom
Schaffner Ltd.
1, Oakmede Place
Binfield
RG42 4JF Berkshire
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com

USA
Schaffner EMC Inc.
52 Mayfield Avenue
Edison, New Jersey
T +1 732 225 9533
F +1 732 225 4789
usasales@schaffner.com

To find your local partner within Schaffner’s
global network: www.schaffner.com
© 2021 Schaffner Group

The content of this document has been
carefully checked and understood. However,
neither Schaffner nor its subsidiaries assume
any liability whatsoever for any errors or
inaccuracies of this document and the
consequences thereof. Published specifica-
tions are subject to change without notice.
Product suitability for any area of application
must ultimately be determined by the
customer. In all cases, products must never
be operated outside their published
specifications. Schaffner does not guarantee
the availability of all published products. This
disclaimer shall be governed by substantive
Swiss law and resulting disputes shall be
settled by the courts at the place of business
of Schaffner Holding AG. Latest publications
and a complete disclaimer can be downloa-
ded from the Schaffner website. All
trademarks recognized.