Excellent Performance EMC/EMI Filter with Earth Line Choke

Rated currents up to 15 A
Superior attenuation performance
Integrated earth line choke
Complies with IEC/EN 60601-1
Snap-in versions (S and S1 type)
Hot inlet versions (HI type)

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>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>16</td>
<td>20</td>
</tr>
</tbody>
</table>

Approvals & Compliances

RoHS
UL
CE
UKCA
(CQC except HI-types)

The FN 9244 E IEC inlet filter combines an IEC inlet and mains filter with superior filter attenuation in a small form factor. The FN 9244 E high performance power entry module offers additional EMI suppression on the earth line. Choosing the FN 9244 E 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. A wide selection on amperage ratings, output connections, mounting possibilities and filters for medical applications are designed to offer you the desired solution. For types without additional earth line choke please consult the FN 9244 data sheet.

Features and benefits

- Superior conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Rear/front or snap-in mounting
- Without earth line choke see FN 9244 data sheet
- FN 9244 B versions comply with the requirements of 1MOP acc. to IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing
- Wide mounting flanges available
- Custom-specific versions are available 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
- Medical devices (MDD)
- In-vitro diagnostic medical devices (IVDD)
- Rack mounting equipment

Typical electrical schematic
Filter selection table

<table>
<thead>
<tr>
<th>Filter</th>
<th>Rated current @ 50°C (25°C)</th>
<th>Leakage current* @ 250 VAC/50 Hz (120 VAC/60 Hz)</th>
<th>Inductance L1 [mH]</th>
<th>Inductance L2 [mH]</th>
<th>Capacitance Cx [μF]</th>
<th>Capacitance Cy [nF]</th>
<th>Resistance R [kΩ]</th>
<th>Output connections</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN9244Ex-1-06</td>
<td>1 (1.2)</td>
<td>0.31 (0.18)</td>
<td>59.53</td>
<td>0.4</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-3-06</td>
<td>3 (3.5)</td>
<td>0.31 (0.18)</td>
<td>13.45</td>
<td>0.4</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-6-06</td>
<td>6 (7.2)</td>
<td>0.31 (0.18)</td>
<td>4.1</td>
<td>0.4</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-8-06</td>
<td>8 (10.6)</td>
<td>0.31 (0.18)</td>
<td>2.3</td>
<td>0.4</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-10-06</td>
<td>10 (11.6)</td>
<td>0.31 (0.18)</td>
<td>1.02</td>
<td>0.4</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-12-06</td>
<td>12 (12)</td>
<td>0.31 (0.18)</td>
<td>0.58</td>
<td>0.1</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-15-06</td>
<td>15 (15)</td>
<td>0.31 (0.18)</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-12-06HI</td>
<td>12 (12)</td>
<td>0.31 (0.18)</td>
<td>0.58</td>
<td>0.1</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244Ex-15-06HI</td>
<td>15 (15)</td>
<td>0.31 (0.18)</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>2.2</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-1-06</td>
<td>1 (1.2)</td>
<td>0.00</td>
<td>59.53</td>
<td>0.4</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-3-06</td>
<td>3 (3.5)</td>
<td>0.00</td>
<td>13.45</td>
<td>0.4</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-6-06</td>
<td>6 (7.2)</td>
<td>0.00</td>
<td>4.1</td>
<td>0.4</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-8-06</td>
<td>8 (10.6)</td>
<td>0.00</td>
<td>2.3</td>
<td>0.4</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-10-06</td>
<td>10 (11.6)</td>
<td>0.00</td>
<td>1.02</td>
<td>0.4</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-12-06</td>
<td>12 (12)</td>
<td>0.00</td>
<td>0.58</td>
<td>0.1</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-15-06</td>
<td>15 (15)</td>
<td>0.00</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-12-06HI</td>
<td>12 (12)</td>
<td>0.00</td>
<td>0.58</td>
<td>0.1</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>FN9244ExR-15-06HI</td>
<td>15 (15)</td>
<td>0.00</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>1000</td>
<td>-06</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

* Maximum leakage under normal operating conditions (acc. to IEC60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

Distributor inventory

Check stock levels at global distributors at https://products.schaffner.com/stock
(Also available via the QR code)
Product selector

FN 9244Exx-yy-Hi-zz

- Snap-in range for 5 version only
- Blank: Snap-in range 0.7 to 1.5mm
- 20: Snap-in range 1.5 to 2.2mm
- Blank: Standard IEC inlet type C14
- Hi: Hot IEC inlet type C16 (12 and 15A types only)
- 06: Faston 6.3 x 0.8mm (spade/soldering)
- 1 to 15: Rated current
- Blank: Standard version
- R: Bleed resistor
- B: Medical version (with bleed resistor and without Y2-capacitor)
- Blank: Standard housing with mounting flanges
- U: Housing with wider mounting flanges
- S: Snap-in version, snapper on vertical side
- S1: Snap-in version, snapper on horizontal side

For example: FN 9244 E-15-06, FN 9244 ES1B-10-06-20, FN 9244 ER-12-06Hi, FN 9244 EUB-8-06

Typical filter attenuation

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

1 and 3 A types

6 to 10 A types

12 and 15 A types
Mechanical data

**FN 9244 E**

**FN 9244 E-HI**

**FN 9244 ES**

**FN 9244 ES1**

**FN 9244EU**

**Panel cut out**

**Installation**
## Dimensions

<table>
<thead>
<tr>
<th></th>
<th>FN 9244 E</th>
<th>FN 9244 EU</th>
<th>FN 9244 ES</th>
<th>FN 9244 ES1</th>
<th>FN 9244 E-HI</th>
<th>Tol.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>48</td>
<td>48</td>
<td>29.9</td>
<td>29.9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>22.4</td>
<td>25</td>
<td>22.4</td>
<td>22.4</td>
<td>22.4</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40 ±0.2</td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>46.8</td>
<td>46.7</td>
<td>46.8</td>
<td>46.8</td>
<td>46.8</td>
<td></td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>27.8</td>
<td>27.7</td>
<td>27.8</td>
<td>27.8</td>
<td>27.8 +0.6/-0</td>
<td></td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>20.1</td>
<td>20.1</td>
<td>20.1</td>
<td>20.1</td>
<td>20.1 +0.6/-0</td>
<td></td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>Ø3.3</td>
<td>Ø3.3</td>
<td>Ø3.3</td>
<td>Ø3.3</td>
<td>Ø3.3</td>
<td></td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>13.3</td>
<td>13.3</td>
<td>13.3</td>
<td>13.3</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>R ≤3</td>
<td>R ≤3</td>
<td>R ≤1.5</td>
<td>R ≤1.5</td>
<td>R ≤3</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>21.5</td>
<td>21.5</td>
<td>20.8</td>
<td>21.9</td>
<td>21.5</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>28.5</td>
<td>28.5</td>
<td>29.4</td>
<td>28.5</td>
<td>28.5</td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>M3</td>
<td>M3</td>
<td>M3</td>
<td>M3</td>
<td>M3</td>
<td></td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
<td>90°</td>
<td></td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>0.7 - 1.5</td>
<td>0.7 - 1.5</td>
<td>1.5 - 2.2</td>
<td>1.5 - 2.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Recommended torque for M3 (90° countersunk flat head) is 0.5 Nm

** For selecting the panel thickness, please refer to the filter selector 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 connectors.
Accessories

Power Cord with angled Locking System C13

- Locking system for standardized IEC C14 inlet filter
- No accidental disconnection
- Rated current up to 15 A
- Fits any Schaffner IEC C14 inlet filter
- Retrofit for any IEC C14 inlet
- Various power line plugs for international usage

IL 13P IEC C13 Rewireable Angled Connectors with Locking System

- Locking system for standardized IEC C14 inlet filter
- No accidental disconnection
- Rated current up to 15 A
- Fits any Schaffner IEC C14 inlet filter
- Retrofit for any IEC C14 inlet
- Various power line plugs for international usage

IL 13P IEC C13 Rewireable Connectors with Locking System

- Guards against accidental disconnection
- Requires no other equipment or special inlets to secure it
- Rewireable - offering total flexibility when assembling cables
- Fits any Schaffner IEC C14 inlet filter
- Can be retrofitted
- Various power line plugs for international usage
- LSZH - Low smoke zero halogen
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 556 Chuangye Road, Pudong district
201201 Shanghai
T +86 21 3813 9500
cschina@schaffner.com
www.schaffner.com.cn

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

Germany
Schaffner Deutschland GmbH
Schoemperlenstrasse 128
76185 Karlsruhe
T +49 721 56910
germanysales@schaffner.com

India
Schaffner India Pvt. Ltd
REGUS WORLD TRADE CENTRE
WTC, 22nd Floor Unit No 2238, Brigade Gateway Campus, 26/F, Dr. Rajkumar Road
Malleswaram (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, Kansuiuna, Setagaya-ku
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@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

China
Schaffner EMC Ltd. Shanghai
T20-3 C, No 556 Chuangye Road, Pudong district
201201 Shanghai
T +86 21 3813 9500
cschina@schaffner.com
www.schaffner.com.cn

Finland
Schaffner Oy
Savonrinne 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
F +33 1 39 47 02 28
francesales@schaffner.com

Germany
Schaffner Deutschland GmbH
Schoemperlenstrasse 128
76185 Karlsruhe
T +49 721 56910
germanysales@schaffner.com

India
Schaffner India Pvt. Ltd
REGUS WORLD TRADE CENTRE
WTC, 22nd Floor Unit No 2238, Brigade Gateway Campus, 26/F, Dr. Rajkumar Road
Malleswaram (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, Kansuiuna, Setagaya-ku
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@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

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 specifications 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 downloaded from the Schaffner website. All trademarks recognized.