High-current EMC/RFI Filter

- Off-the-shelf high power filter for rated currents up to 2500 A
- HV versions applicable for IT power networks
- Busbars for convenient and universal electrical connection
- Protective plastic covers optionally available for unsurpassed safety

**Performance indicators**

<table>
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<th>Attenuation performance</th>
<th>standard</th>
<th>high</th>
<th>very high</th>
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<td>Rated current [A]</td>
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<tr>
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<td>800</td>
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</tr>
<tr>
<td></td>
<td>1500</td>
<td>2500</td>
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**Technical specifications**

<table>
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<tr>
<th>Maximum continuous operating voltage</th>
<th>3x 520/300 VAC (FN 3359)</th>
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<tr>
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<td>3x 760/440 VAC (FN 3359 HV)</td>
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<tr>
<td>Operating frequency</td>
<td>DC to 60 Hz</td>
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<tr>
<td>Rated currents</td>
<td>150 to 2500 A @ 50°C</td>
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<tr>
<td>High potential test voltage</td>
<td>P -&gt; E 2750 VDC for 2 sec (FN 3359)</td>
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<td>P -&gt; P 2250 VDC for 2 sec (FN 3359)</td>
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<td>P -&gt; E 3200 VDC for 2 sec (FN 3359 HV)</td>
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<td></td>
<td>P -&gt; P 3270 VDC for 2 sec (FN 3359 HV)</td>
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<tr>
<td>Protection category</td>
<td>IP 00</td>
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<tr>
<td>Overload capability</td>
<td>4x rated current at switch on, 1.5x rated current for 1 minute, once per hour</td>
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<tr>
<td>Temperature range (operation and storage)</td>
<td>-25°C to +100°C (25/100/21)</td>
</tr>
<tr>
<td>Flammability corresponding to</td>
<td>UL 94 V-2 or better</td>
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<tr>
<td>Design corresponding to</td>
<td>UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939</td>
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<tr>
<td>MTBF @ 45°C/480 V (MIL-HB-217F)</td>
<td>130,000 hours</td>
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</tbody>
</table>

**Features and benefits**

- High-power filter for Class A compliance. With approval measurement also Class B compliance possible for some applications
- Extremely compact high-current filter solution with minimum space requirement
- FN 3359 HV versions are applicable for IT power networks
- Optionally available transparent protective covers for all filters up to 1000 A to protect the installer, operator or inspector from undeliberate touching of life conductors. They can easily be retrofitted even if the filter is already installed and connected
- FN 3359 also improves conducted immunity of installations

**Typical applications**

- High-power motor drives, inverters and converters
- Industrial three-phase systems
- Entire factories, plants and installations
- Large UPS
- Machinery
- Mining equipment
- Photovoltaic systems with galvanic isolation*
- Wind turbines

* For EMI solutions for PV system without galvanic isolation, please contact your local Schaffner partner.

Note: HV versions without discharge resistor to ground.
## Filter selection table

<table>
<thead>
<tr>
<th>Filter</th>
<th>Buy</th>
<th>Rated current @ 50°C (40°C)</th>
<th>Typical drive power rating*</th>
<th>Leakage current** @ 520/760 VAC/50 Hz</th>
<th>Power loss @ 25°C/50 Hz</th>
<th>Input/Output connections</th>
<th>Weight</th>
<th>Protective covers***</th>
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</thead>
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</table>

* Calculated at rated current, 480 VAC (FN 3359)/690 VAC (FN 3359 HV) and cos phi=0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

** Standardized calculated leakage current acc. IEC60939 under normal operating conditions (FN 3359 at 520 VAC and FN 3359 HV at 760 VAC).

*** Please contact your local Schaffner partner to order the optional protective covers with the order code in the table above (n.a.: not available)

**** For terminal type -28 the max. current is limited to 250A, therefore no uprating possible at lower temperatures.

### Distribution inventory

Up-to-date inventory levels for global distributors is available at

https://products.schaffner.com/stock

or via the QR code printed on the right side

### Typical filter attenuation

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

150 to 180 A types

250 to 600 A types

800 and 1000 A types

1600 and 2500 A types
**Mechanical data**

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<tr>
<th>150 to 250 A types</th>
<th>320 to 2500 A types</th>
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<td><img src="image1" alt="Diagram" /></td>
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**Busbar connections**

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**Dimensions**

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</table>

All dimensions in mm; 1 inch = 25.4 mm

Tolerances according: ISO 2768-m/EN 22768-m

(n.a.: not applicable)

Please visit www.schaffner.com to find more details on filter connectors.
**Accessories**

**Protective Cover for Busbar Filters**

- Transparent protective covers for FN3359 and FN3270 with busbars from 150 to 1000 A
- Protection for the operator or inspector from accidental touching of live conductors.
- Easily to be added after the filter has been installed and connected.

**Applicable Busbar Filters**

- FN3359
- FN3270

**Surge Protection Devices**

- SPD with a fail safe function to prevent short-circuit (separation of circuit and element is visually confirmable)
- Compliance with IEC 61643-1 that meets the new JIS standards
- Against indirect lightning surge for single phase / three phase power supplies Quick response for surge
- Impulse current capacity 8/20μs-5,000A
- Impulse test category: Class II (Type II)
- Every pathway consists of same elements. Between line and line/between lines and ground can protect as the same level.
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