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

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<th>Attenuation performance</th>
<th>standard</th>
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<th>very high</th>
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<td>Rated current [A]</td>
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Technical specifications

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<tr>
<th>Maximum continuous operating voltage</th>
<th>3x 520/300 VAC (FN 3359)</th>
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<tr>
<td>3x 760/440 VAC (FN 3359 HV)</td>
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<th>Operating frequency</th>
<th>DC to 60 Hz</th>
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<td>Rated currents</td>
<td>150 to 2500 A @ 50°C</td>
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<th>High potential test voltage</th>
<th>P –&gt; E 2750 VDC for 2 sec (FN 3359)</th>
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<tr>
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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>P –&gt; P 3270 VDC for 2 sec (FN 3359 HV)</td>
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<th>Protection category</th>
<th>IP 00</th>
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<td>Overload capability</td>
<td>4x rated current at switch on,</td>
</tr>
<tr>
<td></td>
<td>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>
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<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. B 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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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.

Approvals & Compliances

UL up to 1000A: 600/400 VAC; ENEC up to 1600A: 690/400 VAC

Typical electrical schematic

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

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<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>
<th>Order code</th>
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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)

## 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

## 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

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**150 to 180 A types**

**250 to 600 A types**

**800 and 1000 A types**

**1600 and 2500 A types**
Mechanical data

150 to 250 A types

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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](http://www.schaffner.com) to find more details on filter connectors.
EMC/EMI Products | Schaffner Group | Datasheets | 10 Jun 2020

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