Ultra-compact Low Leakage current EMC/EMI Filter

Ultra-compact four-wire filter for applications lacking space
Exceptional low operating leakage current
Equally suitable for star and delta power networks

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>120</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>360</td>
<td>480</td>
<td>600</td>
</tr>
</tbody>
</table>

Technical specifications

- Maximum continuous operating voltage: 3x 440/250 VAC
- Operating frequency: DC to 400 Hz
- Rated currents: 3 to 20 A @ 40°C
- High potential test voltage:
  - P/N –> E 2000 VAC for 2 sec
  - P –> P 1350 VDC for 2 sec
  - P -> N 800 VAC for 2 sec
- Overload capability: 4x rated current at switch on, 1.5x rated current for 1 minute, once per hour
- Temperature range (operation and storage): -25°C to +100°C (25/100/21)
- Flammability corresponding to: UL 94 V-2 or better
- Design corresponding to: UL 1283, CSA 22.2 No. B 1986, IEC/EN 60939
- MTBF @ 40°C/230 V (Mil-HB-217F): 850,000 hours

Features and benefits

- The FN 355 family of three-phase and neutral line filters provides a cost-effective interference suppression solution for a wide variety of applications
- Available in four versions, with current ratings from 3 to 20 A, the filters employ a single-stage four-wire LC circuit with saturating resistant chokes, and have a very low operational leakage current
- FN 355 filters are contained within an extremely compact metal housing, making them ideal for use in situations where space is at a premium

Approvals

- RoHS
- UL
- CE

Typical applications

- Office equipment
- Medical equipment
- General purpose four-wire filtering
- Applications with tight space conditions

Typical electrical schematic
Filter selection table

<table>
<thead>
<tr>
<th>Filter</th>
<th>Rated current @ 40°C (25°C)</th>
<th>Leakage current* @ 440 VAC/50 Hz</th>
<th>Power loss @ 25 °C/ 50Hz</th>
<th>Input/Output connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN 355-3-05</td>
<td>3 (3.4)</td>
<td>0.0</td>
<td>1.4</td>
<td>-05 0.15</td>
</tr>
<tr>
<td>FN 355-6-05</td>
<td>6 (6.9)</td>
<td>0.0</td>
<td>1.5</td>
<td>-05 0.21</td>
</tr>
<tr>
<td>FN 355-10-05</td>
<td>10 (11.5)</td>
<td>0.0</td>
<td>1.8</td>
<td>-05 0.25</td>
</tr>
<tr>
<td>FN 355-20-06</td>
<td>20 (23)</td>
<td>0.1</td>
<td>3.4</td>
<td>-06 0.29</td>
</tr>
<tr>
<td>FN 355-20-03</td>
<td>20 (23)</td>
<td>0.1</td>
<td>3.4</td>
<td>-03 0.29</td>
</tr>
</tbody>
</table>

* Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

3 A types

6 A types

10 and 20A types

Mechanical data

Filters with faston terminals (3 to 20 A types)

Filters with clamp terminals with M4 screw (20 A types)

All dimensions in mm; 1 inch = 25.4 mm
Tolerances according: ISO 2768-m / EN 22768-m

Please visit www.schaffner.com to find more details on connectors.
To find your local partner within Schaffner’s global network www.schaffner.com

© 2018 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 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.