Ultra-compact Low Leakage current EMC/EMI Filter

**Features and benefits**
- 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>240</td>
<td>340</td>
<td>480</td>
</tr>
</tbody>
</table>

**Technical specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum continuous operating voltage</td>
<td>3× 440/250 VAC</td>
</tr>
<tr>
<td>Operating frequency</td>
<td>DC to 400 Hz</td>
</tr>
<tr>
<td>Rated current</td>
<td>3 to 20 A @ 40°C</td>
</tr>
</tbody>
</table>
| 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 |

**Approvals & Compliances**
- RoHS
- UL
- CSA
- CE

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

**Typical electrical schematic**

![Typical electrical schematic](image)
## 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>
<th>weight [kg]</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</td>
<td>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</td>
<td>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</td>
<td>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</td>
<td>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</td>
<td>0.29</td>
</tr>
<tr>
<td>FN 355-30-44</td>
<td>30 (34)</td>
<td>0.2</td>
<td>4.1</td>
<td>-44</td>
<td>0.44</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

![Attenuation graphs for different filter types](image-url)
Mechanical data

Filters with faston terminals (3 to 20 A types)

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

Filters with terminal blocks (30 A type)

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.

Filter input/output connector cross sections

<table>
<thead>
<tr>
<th>Type</th>
<th>Cross Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid wire</td>
<td>0.5-10 mm²</td>
</tr>
<tr>
<td>Flex wire</td>
<td>0.5-6 mm²</td>
</tr>
<tr>
<td>Flex wire AWG</td>
<td>AWG 20-6</td>
</tr>
<tr>
<td>Recommended torque</td>
<td>1.0-1.2 Nm</td>
</tr>
</tbody>
</table>

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

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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
ccchina@schaffner.com
www.schaffner.com.cn

Finland
Schaffner Oy
Savonnininne 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
Schoepperlenstrasse 128
76185 Karlsruhe
T +49 721 56910
germanysales@schaffner.com

India
Schaffner India Pvt. Ltd
REGUS WORLD TRADE CENTRE
WTC, 22nd Floor Unit No 223B, Brigade
Gateway Campus, 26/1, Dr. Rajkumar Road
Malledwaram (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 24 41 070
italysales@schaffner.com

Japan
Schaffner EMC K.K.
Taiju-Seimei Sangenjaya Bldg.
1-32-12, Kasumi, 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 Ubdi 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
spainsales@schaffner.com

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

Thailand
Schaffner EMC Co. Ltd.
Northern Region Industrial Estate
67 Moo 4 Tambon Ban Klang
Amphur Muang PC: 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 9779070
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
www.schaffnerusa.com