Versatile Filtered Power Entry Module

- Rated currents up to 6 A
- Single or dual-fuse holder
- Fuses Ø6.3 x 32 mm Ø5 x 20 mm
- 2-pole rocker switch
- General purpose application
- Optional medical versions (B 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  4  8  12 16 20</td>
<td></td>
<td></td>
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</tbody>
</table>

Technical specifications

- Maximum continuous operating voltage: 250 VAC, 50/60 Hz
- Operating frequency: DC to 400 Hz
- Rated currents: 2 to 6 A at 40°C max.
- High potential test voltage:
  - P → PE 2000 VAC for 2 sec (standard types)
  - P → PE 2500 VAC for 2 sec (B types)
  - P → N 760 VAC for 2 sec
- Protection category: IP 40 according to IEC 60529
- Temperature range (operation and storage): -25°C to +85°C (25/85/21)
- Design corresponding to:
  - UL 1283, CSA 22.2 No. B 1986, IEC/EN 60939
- Flammability corresponding to:
  - UL 94 V-2 or better
- MTBF @ 40°C/230 V (Mil-HB-217F): 550,000 hours
- Function:
  - 2-pole, dark not illuminated
  - Marking I - 0

Electrical specifications

- Inrush current: 51 A
- 10,000 on-off operations according to ENEC
- 6,000 on-off operations according to UL 1054, TV 5
- Mechanical life: 50,000 cycles
- Switch ratings:
  - Europe (ENEC):
    - 6 A (4 A), 250 VAC*
  - USA (UL):
    - 6 A, 125 VAC, 4 A, 250 VAC, 1/10 HP
  - Canada (CSA):
    - 6 A, 125 VAC, 4 A, 250 VAC, 1/10 HP

* Value in () relates to the inductive current charge: cos φ=0.65

Approvals & Compliances

The FN 380 power entry module combines an IEC inlet, a mains filter with a single or dual fuse holder and a 2-pole rocker switch. Choosing FN 380 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, fuse options, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

Features and benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Front or snap-in mounting
- Single or dual-fuse holder
- USA Ø6.3 x 32 mm or EU Ø5 x 20 mm fuses
- 2-pole rocker switch

Typical applications

- Portable electrical and electronic equipment
- Consumer goods
- EDP and office equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical equipment

Typical electrical schematic (single fuse)

Typical electrical schematic (dual fuse)
Filter selection table

<table>
<thead>
<tr>
<th>Filter*</th>
<th>Rated current @ 40°C (25°C) [A]</th>
<th>Leakage current** @ 230 VAC/50 Hz [μA]</th>
<th>Inductance*** [mH]</th>
<th>Capacitance*** [nF]</th>
<th>Resistance*** [kΩ]</th>
<th>Fuses****</th>
<th>Weight [g]</th>
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</thead>
<tbody>
<tr>
<td>FN 380-2-2 z</td>
<td>2 (2.4)</td>
<td>373</td>
<td>0.70</td>
<td>47</td>
<td>2.2</td>
<td>1</td>
<td>55</td>
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<tr>
<td>FN 380-4-2 z</td>
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<tr>
<td>FN 388-2-2 z</td>
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<td>0.50</td>
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<td>2.00</td>
<td>1000</td>
<td>2</td>
</tr>
</tbody>
</table>

* Select the requested fuse holder for fuse EUR-1 or USA-1 (z).
** Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.
*** Tolerances apply: Inductance: ±30/+50%, Capacitance: ±20%, Resistance: ±10%
**** Filters are delivered without fuse.

Product selector

- **1:** Fuse 05 x 20mm (FUSE-H EUR-1)
- **2:** Fuse 06.3 x 32mm (FUSE-H USA-1)
- **2:** Rocker switch, 2-pole, dark not illuminated
- **2** to **6:** Rated current

**Blank:** Standard version
**B:** Medical version (with bleed resistor and without Y2-capacitor)

- **0:** Snap-in version, single-fuse, standard performance
- **2:** Snap-in version, dual-fuse, standard performance
- **5:** Snap-in version, dual-fuse, high performance
- **8:** Flange mounting version, dual-fuse, standard performance
- **9:** Flange mounting version, dual-fuse, high performance

FN 380 / FN 382 / FN 385
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

FN 380/FN 382/FN 388

FN 385/FN 389

Mechanical data

Connection designation

Output terminal (Filter and Fuse)

Panel cut out

Blade terminals of switch acc. DIN 46 244-A4.8-0.8 (do not connect by soldering)
<table>
<thead>
<tr>
<th>Dimensions</th>
<th>FN 380</th>
<th>FN 382</th>
<th>FN 385</th>
<th>FN 388</th>
<th>FN 389</th>
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<td>B</td>
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<td>D</td>
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<td>12.5</td>
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<td>R ≤2</td>
<td>±0.1</td>
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<tr>
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<td>55.9*/56.2**</td>
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<td>+0.2/-0</td>
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<td>28.5</td>
<td>+0.2/-0</td>
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<tr>
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<td>9</td>
<td>9</td>
<td>9</td>
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<td></td>
</tr>
</tbody>
</table>

* For a back panel thickness between 0.8 and 2.0 mm
** For a back panel thickness between 2.1 and 3.2 mm

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 filter connectors.
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