

Versatile Filtered Power Entry Module

SCHAFFNER
energy efficiency and reliability



- Rated currents up to 10A
- For one or two fuses
- Fuses Ø6.3 x 32mm or Ø5 x 20mm
- 2-pole rocker switch
- Voltage selector
- Optional earth line choke (E type)

Approvals



Technical specifications

| | |
|--|--|
| Maximum continuous operating voltage: | 250VAC, 50/60Hz |
| Operating frequency: | 50 to 400Hz |
| Rated currents: | 1 to 10A @ 40°C max. |
| High potential test voltage: | P → PE 2000VAC for 2 sec P → N 760VAC for 2 sec |
| Protection category: | IP40 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. 8 1986, IEC/EN 60939 |
| Flammability corresponding to: | UL 94V-2 or better |
| MTBF @ 40°C/230V (Mil-HB-217F): | 2,200,000 hours |
| Voltage selector description: | |
| Function: | Series/parallel |
| Voltage marking: | |
| Series: | 110-120V |
| Parallel: | 220-240V |
| Rocker switch description: | |
| Function: | 2-pole, dark not illuminated Marking I - 0 |
| Electrical specifications: | |
| | Inrush current 51A |
| | 6,000 on-off operations according to UL 1054, TV 5 |
| | 10,000 on-off operations according to ENEC |
| Mechanical life: | |
| | 50,000 cycles |
| Switch ratings: | |
| USA (UL) and Canada (C-UL): | 10A, 125VAC; 10A, 250VAC; 1/3HP |
| Europe (ENEC): | 10A (4A), 250VAC* |

* Value in () relates to the inductive current charge: $\cos \gamma = 0.65$

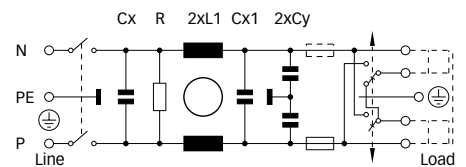
The FN 390 power entry module combines an IEC inlet, mains filter with single or dual-fuse holder, voltage selector and 2-pole rocker switch. Choosing FN 390 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptances. Standard IEC connector filters are a practical solution helping you to pass EMI system approval in a short time. Multiple options designed to offer you the desired solution.

Features and benefits

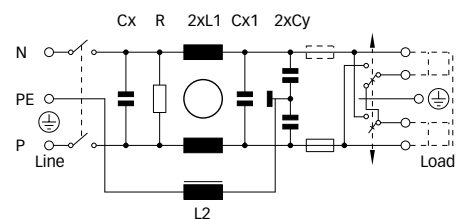
- High conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear or front mounting.
- Single or dual-fuse holder.
- USA Ø6.3 x 32mm or EU Ø5 x 20mm fuses.
- 2-pole rocker switch.
- Voltage selector 110-120V / 220-240V.
- Custom-specific versions are available on request.

Typical electrical schematic

Standard types




E types



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

Filter selection table

| Filter | Rated current @ 40°C (25°C) [A] | Leakage current* @ 230VAC/50Hz [µA] | Inductance | | Cx [nF] | Capacitance | | Resistance R [kΩ] | Output connections  | Fuses** [Qty] | Weight [g] |
|-------------------|---------------------------------------|---|------------|------------|------------|-------------|------------|-------------------------|--|------------------|---------------|
| | | | L1 [mH] | L2 [mH] | | Cx1 [nF] | Cy [nF] | | | | |
| FN 393-1-05-11 | 1 (1.2) | 560 | 7.5 | | 220 | 3.3 | 1000 | 05-11 | 1 | 200 | |
| FN 393-2.5-05-11 | 2.5 (3) | 560 | 2 | | 220 | 3.3 | 1000 | 05-11 | 1 | 200 | |
| FN 393-6-05-11 | 6 (7.2) | 560 | 0.45 | | 220 | 3.3 | 1000 | 05-11 | 1 | 200 | |
| FN 394-1-05-11 | 1 (1.2) | 560 | 7.5 | | 220 | 3.3 | 1000 | 05-11 | 2 | 200 | |
| FN 394-2.5-05-11 | 2.5 (3) | 560 | 2 | | 220 | 3.3 | 1000 | 05-11 | 2 | 200 | |
| FN 394-6-05-11 | 6 (7.2) | 560 | 0.45 | | 220 | 3.3 | 1000 | 05-11 | 2 | 200 | |
| FN 393E-1-05-11 | 1 (1.2) | 560 | 7.5 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 1 | 205 | |
| FN 393E-2.5-05-11 | 2.5 (3) | 560 | 2 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 1 | 205 | |
| FN 393E-6-05-11 | 6 (7.2) | 560 | 0.45 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 1 | 205 | |
| FN 394E-1-05-11 | 1 (1.2) | 560 | 7.5 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 2 | 205 | |
| FN 394E-2.5-05-11 | 2.5 (3) | 560 | 2 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 2 | 205 | |
| FN 394E-6-05-11 | 6 (7.2) | 560 | 0.45 | 0.4 | 220 | 3.3 | 1000 | 05-11 | 2 | 205 | |
| FN 1393-1-05-11 | 1 (1.2) | 797 | 16 | | 220 | 100 | 4.7 | 470 | 05-11 | 1 | 210 |
| FN 1393-2.5-05-11 | 2.5 (3) | 797 | 8 | | 220 | 100 | 4.7 | 470 | 05-11 | 1 | 210 |
| FN 1393-6-05-11 | 6 (7.2) | 797 | 2.5 | | 220 | 100 | 4.7 | 470 | 05-11 | 1 | 210 |
| FN 1393-10-05-11 | 10 (12) | 797 | 0.6 | | 220 | 100 | 4.7 | 470 | 05-11 | 1 | 210 |
| FN 1394-1-05-11 | 1 (1.2) | 797 | 16 | | 220 | 100 | 4.7 | 470 | 05-11 | 2 | 210 |
| FN 1394-2.5-05-11 | 2.5 (3) | 797 | 8 | | 220 | 100 | 4.7 | 470 | 05-11 | 2 | 210 |
| FN 1394-6-05-11 | 6 (7.2) | 797 | 2.5 | | 220 | 100 | 4.7 | 470 | 05-11 | 2 | 210 |
| FN 1394-10-05-11 | 10 (12) | 797 | 0.6 | | 220 | 100 | 4.7 | 470 | 05-11 | 2 | 210 |

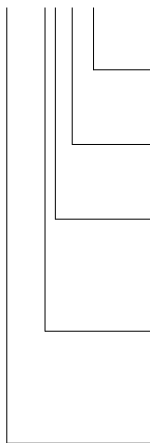
* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

** Filters are delivered without fuse.

Note: for medical versions please contact your local partner within Schaffner's global network.

Product selector

FN (1)39xx-y-zz



05-11: Faston 6.3 x 0.8mm

1 to 10: Rated current

Blank: Standard version

E: Optional earth line choke

3: 1 fuse (Ø5 x 20mm or Ø6.3 x 32mm)

4: 2 fuses (Ø5 x 20mm or Ø6.3 x 32mm)

Blank: Standard version

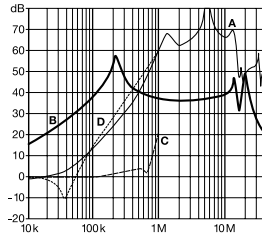
1: Additional Cx1 capacitor and higher inductivity

For example: FN 393-1-05-11, FN 394E-2.5-05-11, FN 1394-10-05-11

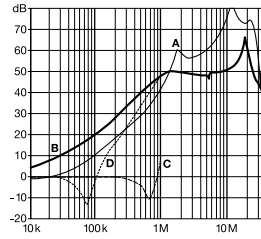
Typical filter attenuation

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

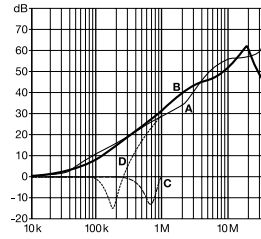
FN 39x: 1A types



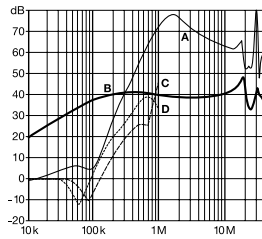
FN 39x: 2.5A types



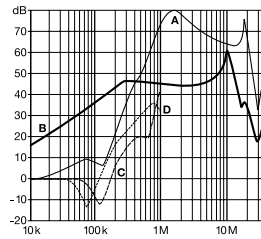
FN 39x: 6A types



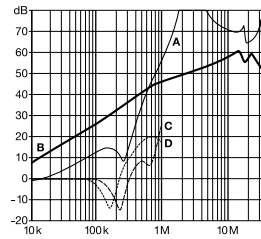
FN 139x: 1A types



FN 139x: 2.5A types

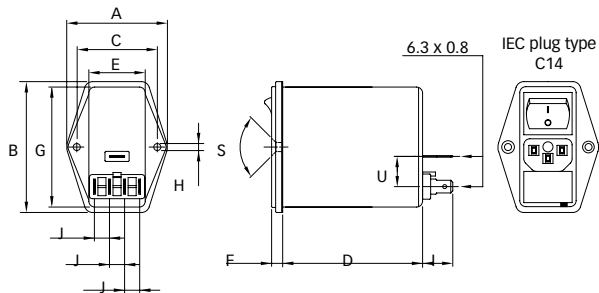


FN 139x: 6 and 10A types

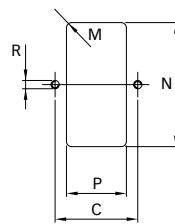


Mechanical data

1 to 10A types



Panel cut out



Dimensions

| | 1 to 10A | Tolerances |
|---|----------|------------|
| A | 50 | ±0.3 |
| B | 65 | ±0.3 |
| C | 40 | ±0.1 |
| D | 69.5 | ±0.3 |
| E | 28 | |
| F | 5.5 | ±0.3 |
| G | 59.6 | |
| H | Ø3.3 | |
| I | 15 | |
| J | 7.5 | |
| M | R ≤ 2.5 | |
| N | 60.03 | ±0.2 |
| P | 29.03 | ±0.2 |
| R | M3 | |
| S | 90° | |
| U | 15 | |

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

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[FN394E-6-05-11](#)



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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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