

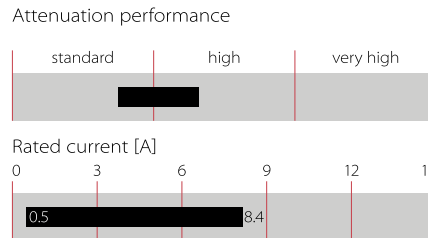
Ultra Compact EMC Filter



- Rated currents from 0.5 to 8.4 A
- Aluminium case
- Very compact PCB-mountable design
- Low profile
- Optional medical versions (B type)



Performance indicators



Approvals



The FN 406 PCB filter is a single-phase filter designed for easy, fast and compact PCB-mounting. Choosing the FN 406 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptance. Standard PCB single-phase filters are a practical solution helping you to pass EMI system approval in a short time. A selection on amperage ratings and medical types are designed to offer you the desired standard product.

Features and benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- PCB through hole mounting.
- Low profile.
- Custom specific versions on request.

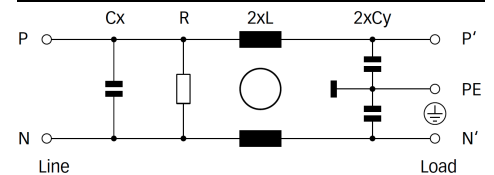
Technical specifications

| | |
|--|--|
| Maximum continuous operating voltage | 250 VAC, 50/60 Hz |
| Operating frequency | DC to 400 Hz |
| Rated currents | 0.5 to 8.4 A @ 40°C max. |
| High potential test voltage | P → PE 2000 VAC for 2 sec (standard types) P → N 760 VAC for 2 sec P → PE 2500 VAC for 2 sec (B types) |
| Temperature range (operation and storage) | -25°C to +100°C (25/100/21) |
| Design corresponding to | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 |
| Flammability corresponding to | UL 94 V-0 |
| MTBF @ 40°C/230 V (Mil-HB-217F) | 1,900,000 hours |

Typical applications

- Electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical equipment

Typical electrical schematic



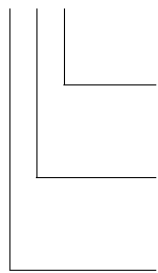
Filter selection table

| Filter | Rated current | Leakage current* | Inductance | Capacitance | | Resistance | Input/Output connections | Weight |
|------------------------|-----------------|------------------|------------|-------------|------|------------|--------------------------|--------|
| | @ 40 °C (25 °C) | @ 230 VAC/50 Hz | L | Cx | Cy | R | | |
| | [A] | [µA] | [mH] | [nF] | [nF] | [kΩ] | ⊥ | [g] |
| FN 406-0.5-02 | 0.5 (0.6) | 373 | 24 | 100 | 2.2 | 1000 | -02 | 36 |
| FN 406-1-02 | 1 (1.2) | 373 | 12 | 100 | 2.2 | 1000 | -02 | 36 |
| FN 406-3-02 | 3 (3.6) | 373 | 2.5 | 100 | 2.2 | 1000 | -02 | 36 |
| FN 406-6-02 | 6 (6.9) | 373 | 0.78 | 100 | 2.2 | 1000 | -02 | 36 |
| FN 406-8.4-02 | 8.4 (9.6) | 373 | 0.3 | 100 | 2.2 | 1000 | -02 | 36 |
| FN 406 B-0.5-02 | 0.5 (0.6) | 2 | 24 | 100 | | 1000 | -02 | 36 |
| FN 406 B-1-02 | 1 (1.2) | 2 | 12 | 100 | | 1000 | -02 | 36 |
| FN 406 B-3-02 | 3 (3.6) | 2 | 2.5 | 100 | | 1000 | -02 | 36 |
| FN 406 B-6-02 | 6 (6.9) | 2 | 0.78 | 100 | | 1000 | -02 | 36 |
| FN 406 B-8.4-02 | 8.4 (9.6) | 2 | 0.3 | 100 | | 1000 | -02 | 36 |

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

Product selector

FN 406x-yy-..



02: PCB through hole mounting

0.5 to 8.4: Rated current

Blank: Standard version

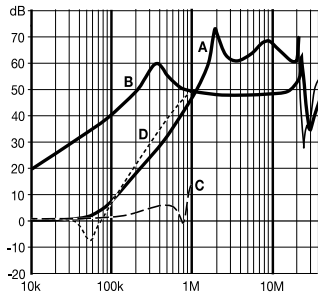
B: Medical version (without Y2-capacitor)

For example: FN 406-0.5-02, FN 406 B-8.4-02

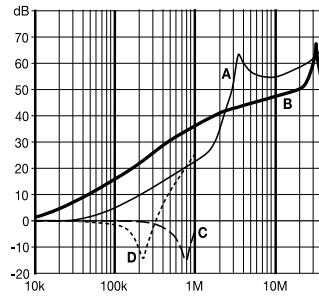
Typical filter attenuation

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

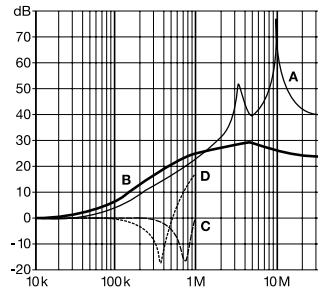
0.5 to 3 A types



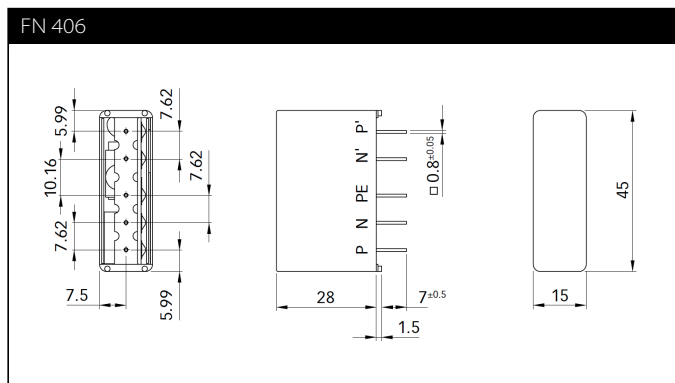
6 A types



8.4 A types



Mechanical data



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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