

PCB filters FN 405

PCB-mounting filter



- Rated currents from 0.5 to 10A
- Compact PCB-mountable design
- Low profile

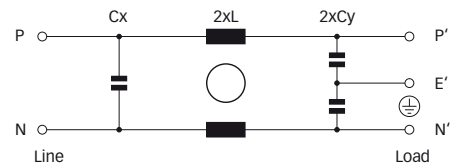
Approvals



Technical specifications

| | |
|--|---|
| Maximum continuous operating voltage: | 250VAC, 50/60Hz |
| Operating frequency: | dc to 400Hz |
| Rated currents: | 0.5 to 10A @ 40°C max. |
| High potential test voltage: | P → E 2000VAC for 2 sec P → N 760VAC for 2 sec |
| 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 94V-2 or better |
| MTBF @ 40°C/230V (Mil-HB-217F): | 1,600,000 hours |

Typical electrical schematic



The FN 405 PCB filter is a single-phase filter designed for easy and fast PCB-mounting. Choosing the FN 405 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 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.

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

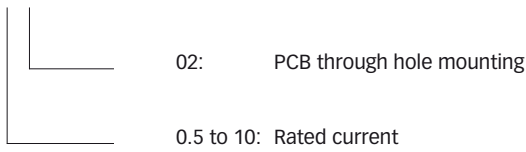
Filter selection table

| Filter | Rated current @ 40°C (25°C) | Leakage current* @ 230VAC/50Hz | Inductance L | Capacitance Cx Cy | | Resistance R | Input/Output connections | Weight [g] |
|---------------|--------------------------------|-----------------------------------|-----------------|----------------------|------|-----------------|-----------------------------|---------------|
| | [A] | [μA] | [mH] | [nF] | [nF] | [kΩ] | | |
| FN 405-0.5-02 | 0.5 (0.6) | 373 | 24 | 15 | 2.2 | | -02 | 40 |
| FN 405-1-02 | 1 (1.2) | 373 | 10 | 15 | 2.2 | | -02 | 40 |
| FN 405-3-02 | 3 (3.6) | 373 | 2 | 15 | 2.2 | | -02 | 40 |
| FN 405-6-02 | 6 (6.9) | 373 | 0.8 | 15 | 2.2 | | -02 | 40 |
| FN 405-10-02 | 10 (11.5) | 373 | 0.5 | 15 | 2.2 | | -02 | 40 |

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

Product selector

FN 405-yy-..

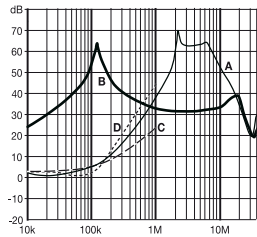


For example: FN 405-0.5-02, FN 405-10-02

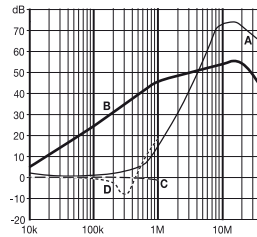
Typical filter attenuation

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

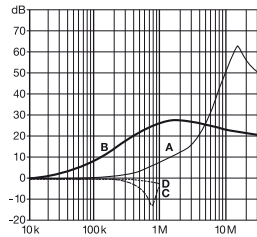
0.5 and 1A types



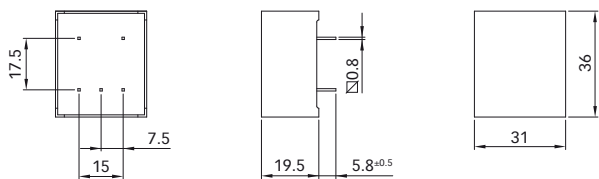
3 and 6A types



10A types



Mechanical data



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