

1-phase Filters FN 2310

Performance EMI Filter

SCHAFFNER
energy efficiency and reliability



- Rated currents from 3 to 10A
- High differential and common-mode attenuation
- Compact housing
- UL-rated materials

Approvals

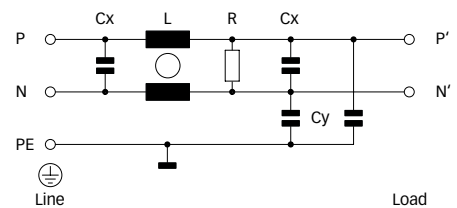


Technical specifications

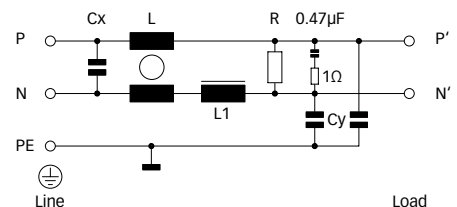
| | |
|--|---|
| Maximum continuous operating voltage: | 250VAC, 50/60Hz |
| Operating frequency: | dc to 400Hz |
| Rated currents: | 3 to 10A @ 40°C max. |
| High potential test voltage: | P → PE 2000VAC for 2 sec P → N 1100VDC for 2 sec |
| Temperature range (operation and storage): | -25°C to +100°C (25/100/21) |
| Flammability corresponding to: | UL 94V-2 or better |
| Design corresponding to: | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 |
| MTBF @ 40°C/230V (Mil-HB-217F): | 1,700,000 hours |

Typical electrical schematic

3 and 6A types



10A types



Features and benefits

- FN 2310 filters are designed for easy and fast chassis mounting.
- FN 2310 filters have a perfect performance/size ratio.
- All filters provide a high symmetrical and asymmetrical attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Faston terminal connection with additional spade solder possibility.
- Custom-specific versions on request.

Typical applications

- Electrical and electronic equipment
- Consumer goods
- Power supplies
- Office automation equipment
- Datacom equipment

Filter selection table

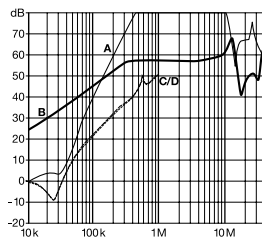
| Filter | Rated current @ 40°C (25°C) | Leakage current* @ 230VAC/50Hz | Inductance | | Capacitance | | Resistance | Input/Output connections | Weight [g] |
|----------------|--------------------------------|-----------------------------------|------------|---------|-------------|---------|------------|-----------------------------|---------------|
| | [A] | [mA] | L [mH] | L1 [μH] | Cx [μF] | Cy [nF] | R [MΩ] | | |
| FN 2310X-3-06 | 3 (3.35) | 0.69 | 36.9 | | 0.47 | 4 | 1 | -06 | 240 |
| FN 2310X-6-06 | 6 (6.7) | 0.69 | 19.3 | | 0.47 | 4 | 1 | -06 | 250 |
| FN 2310X-10-06 | 10 (11.2) | 0.69 | 9.6 | 75 | 1.5 | 4 | 1 | -06 | 470 |
| FN 2310H-10-06 | 10 (11.2) | 1.73 | 9.6 | 75 | 1.5 | 10 | 1 | -06 | 470 |

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

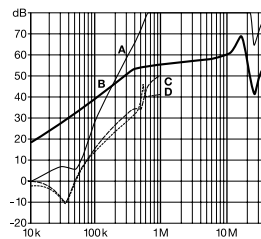
Typical filter attenuation

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

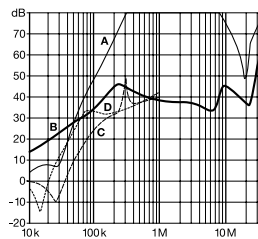
3A types



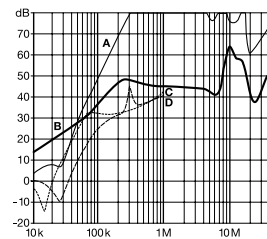
6A types



10A types (X types)

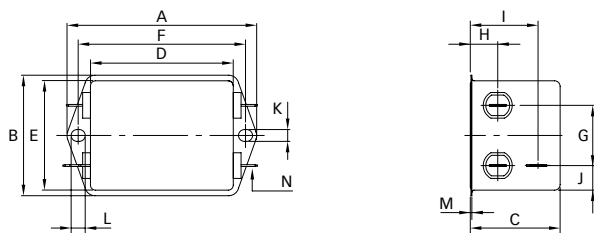


10A types (H types)

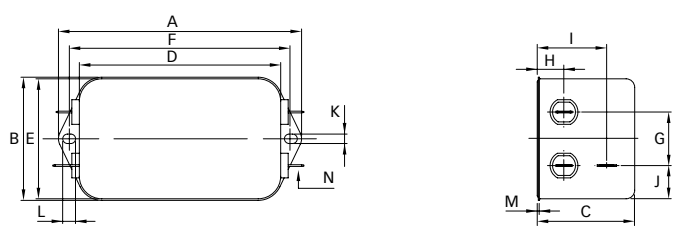


Mechanical data

3 and 6A types



10A types



Dimensions

| | 3A | 6A | 10A | Tolerances |
|---|-----------|-----------|-----------|------------|
| A | 85 | 85 | 113.5 | ±0.5 |
| B | 54 | 54 | 57.5 | ±0.5 |
| C | 40.3 | 40.3 | 45.5 | ±0.5 |
| D | 64.8 | 64.8 | 94 | ±0.5 |
| E | 49.8 | 49.8 | 56 | ±0.5 |
| F | 75 | 75 | 103.5 | ±0.3 |
| G | 27 | 27 | 25 | ±0.2 |
| H | 12.3 | 12.3 | 12.4 | ±0.5 |
| I | 29.8 | 29.8 | 32.4 | ±0.5 |
| J | 11.4 | 11.4 | 15.5 | ±0.5 |
| K | 5.3 | 5.3 | 4.4 | |
| L | 6.3 | 6.3 | 6 | |
| M | 0.7 | 0.7 | 1 | |
| N | 6.3 x 0.8 | 6.3 x 0.8 | 6.3 x 0.8 | |

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

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May 2011

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