

# High Performance IEC Inlet Filter



- Rated currents up to 20 A
- Optional medical versions (B type)
- Rear mounting
- Excellent attenuation in the lower frequency range



## Performance indicators

Attenuation performance



Rated current [A]



## Technical specifications

|                                                  |                                                                                                                                                                                 |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Maximum continuous operating voltage</b>      | 250 VAC, 50/60 Hz                                                                                                                                                               |
| <b>Operating frequency</b>                       | DC to 400 Hz                                                                                                                                                                    |
| <b>Rated currents</b>                            | 1 to 20 A @ 50°C                                                                                                                                                                |
| <b>Approvals by rated current</b>                | 1 to 10 A (Semko)<br>16 A (Semko) for 16 and 20 A types<br>1 to 20 A (UL, CSA)                                                                                                  |
| <b>High potential test voltage</b>               | P → PE 2000 VAC for 2 sec (standard types)<br>P → PE 2500 VAC for 2 sec (B types)<br>P → N 1100 VAC for 2 sec (1 to 10 A types)<br>P → N 1100 VDC for 2 sec (16 and 20 A types) |
| <b>Protection category</b>                       | IP 40 according to IEC 60529                                                                                                                                                    |
| <b>Temperature range (operation and storage)</b> | -25°C to +85°C (25/85/21)                                                                                                                                                       |
| <b>Design corresponding to</b>                   | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939                                                                                                                                      |
| <b>Flammability corresponding to</b>             | UL 94 V-2 or better                                                                                                                                                             |
| <b>MTBF @ 40°C/230 V (Mil-HB-217F)</b>           | 1,600,000 hours                                                                                                                                                                 |

## Approvals & Compliances



The FN 9246 IEC inlet filter combines an IEC inlet and mains filter with excellent filter attenuation in a small form factor. Choosing the FN 9246 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 current ratings and low leakage versions for medical applications are designed to offer you the desired solution.

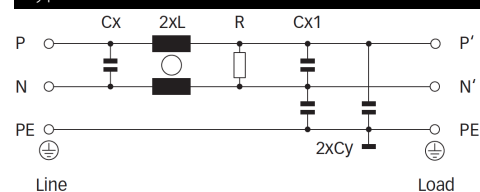
## Features and benefits

- Excellent conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Rear mounting
- FN 9246 B versions comply with the requirements of 1MOP acc. to IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing
- Rated currents up to 20 A
- Custom-specific versions are available 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
- Building automation
- Medical equipment
- Lighting application

## Typical electrical schematic



## Filter selection table

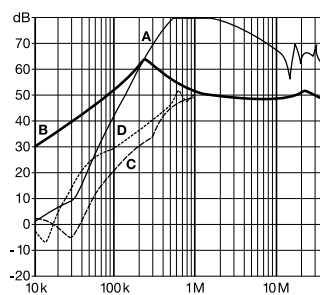
| Filter                 | Rated current<br>@ 40°C (25°C) | Leakage current*<br>@ 250 VAC/50 Hz<br>(@ 120 VAC/60 Hz) | Inductance<br>L | Capacitance |      | Resistance<br>R | Output connections                                                                  | Weight |
|------------------------|--------------------------------|----------------------------------------------------------|-----------------|-------------|------|-----------------|-------------------------------------------------------------------------------------|--------|
|                        |                                |                                                          |                 | Cx          | Cy   |                 |                                                                                     |        |
|                        | [A]                            | [mA]                                                     | [mH]            | [μF]        | [nF] | [kΩ]            |  | [g]    |
| <b>FN 9246-1-06</b>    | 1 (1.2)                        | 0.31 (0.18)                                              | 50              | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-3-06</b>    | 3 (3.5)                        | 0.31 (0.18)                                              | 14              | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-6-06</b>    | 6 (7.2)                        | 0.31 (0.18)                                              | 7               | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-10-06</b>   | 10 (12)                        | 0.31 (0.18)                                              | 3               | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-12-06</b>   | 12 (14)                        | 0.31 (0.18)                                              | 1.85            | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-15-06</b>   | 15 (18)                        | 0.31 (0.18)                                              | 0.89            | 1.22        | 2.2  | 470             | -06                                                                                 | 140    |
| <b>FN 9246-16-06</b>   | 16 (18.5)                      | 0.66 (0.38)                                              | 2.5             | 1.22        | 4.7  | 470             | -06                                                                                 | 275    |
| <b>FN 9246-20-06</b>   | 20 (23)                        | 0.66 (0.38)                                              | 1.5             | 1.22        | 4.7  | 470             | -06                                                                                 | 275    |
| <b>FN 9246 B-1-06</b>  | 1 (1.2)                        | 0.00                                                     | 50              | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-3-06</b>  | 3 (3.5)                        | 0.00                                                     | 14              | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-6-06</b>  | 6 (7.2)                        | 0.00                                                     | 7               | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-10-06</b> | 10 (11.6)                      | 0.00                                                     | 3               | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-12-06</b> | 12 (14)                        | 0.00                                                     | 1.85            | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-15-06</b> | 15 (18)                        | 0.00                                                     | 0.89            | 1.22        |      | 470             | -06                                                                                 | 140    |
| <b>FN 9246 B-16-06</b> | 16 (18.5)                      | 0.00                                                     | 2.5             | 1.22        |      | 470             | -06                                                                                 | 275    |
| <b>FN 9246 B-20-06</b> | 20 (23)                        | 0.00                                                     | 1.5             | 1.22        |      | 470             | -06                                                                                 | 275    |

\* Maximum leakage under normal operating conditions (acc. to IEC60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

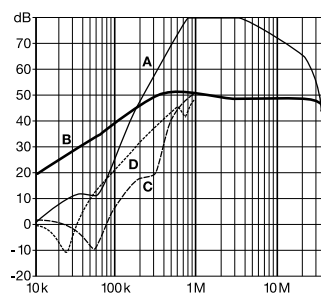
## Typical filter attenuation

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

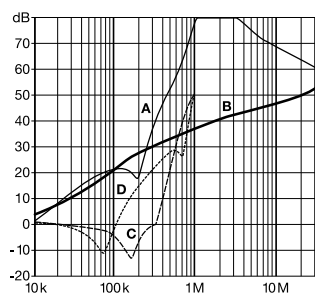
1 A types



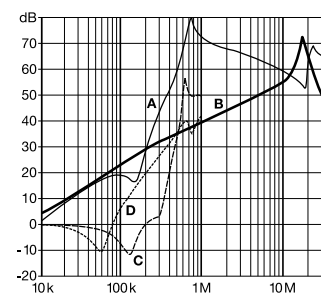
3 to 10 A types



12 and 15 A types

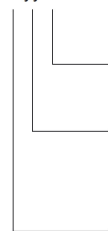


16 and 20 A types



## Product selector

FN 9246x-yy--



06: Faston 6.3 x 0.8mm (spade/soldering)

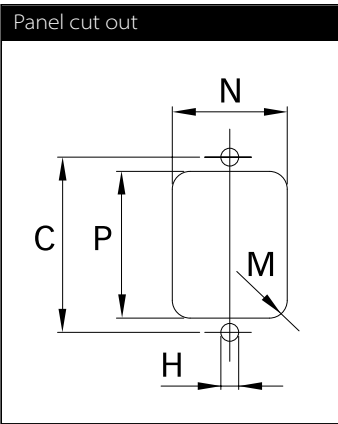
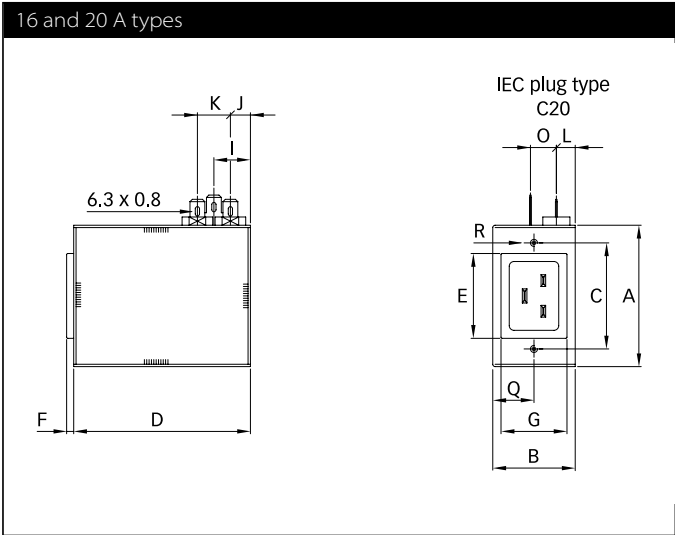
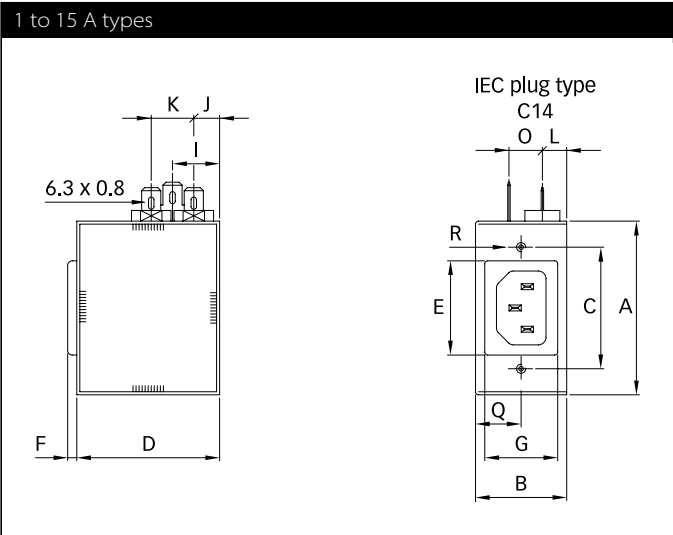
1 to 20: Rated current  
Standard IEC inlet type C14 (1 to 15A types), C20 (16 and 20A types)

Blank: Standard version

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

For example: FN 9246-6-06, FN 9246 B-10-06

Mechanical data



|   | 1 A    | 3 A    | 6 A    | 10 A         | 12 A   | 15 A   | 16 A   | 20 A   |
|---|--------|--------|--------|--------------|--------|--------|--------|--------|
| A | 57.15  | 57.15  | 57.15  | 57.15        | 57.15  | 57.15  | 60     | 60     |
| B | 30     | 30     | 30     | 30           | 30     | 30     | 35     | 35     |
| C | 40     | 40     | 40     | 40           | 40     | 40     | 45     | 45     |
| D | 47     | 47     | 47     | 47           | 47     | 47     | 75     | 75     |
| E | 31     | 31     | 31     | 31           | 31     | 31     | 36     | 36     |
| F | 3      | 3      | 3      | 3            | 3      | 3      | 3      | 3      |
| G | 24     | 24     | 24     | 24           | 24     | 24     | 28     | 28     |
| H | Ø3.5   | Ø3.5   | Ø3.5   | Ø3.5         | Ø3.5   | Ø3.5   | Ø3.5   | Ø3.5   |
| I | 15.5   | 15.5   | 15.5   | 15.5         | 15.5   | 15.5   | 15.5   | 15.5   |
| J | 8.5    | 8.5    | 8.5    | 8.5          | 8.5    | 8.5    | 8.5    | 8.5    |
| K | 14     | 14     | 14     | 14           | 14     | 14     | 14     | 14     |
| L | 8      | 8      | 8      | 8            | 8      | 8      | 8      | 8      |
| M | R ≤1.5 | R ≤1.5 | R ≤1.5 | R ≤1.5       | R ≤1.5 | R ≤1.5 | R ≤1.5 | R ≤1.5 |
| N | 25     | 25     | 25     | 25           | 25     | 25     | 29     | 29     |
| O | 11     | 11     | 11     | 11           | 11     | 11     | 11     | 11     |
| P | 32     | 32     | 32     | 32           | 32     | 32     | 37     | 37     |
| Q | 15     | 15     | 15     | 15           | 15     | 15     | 17.5   | 17.5   |
| R |        |        |        | M3 x 10 max. |        |        |        |        |

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

## Accessories

### Power Cord with angled Locking System C13



- | Locking system for standardized IEC C14 inlet filter
- | No accidental disconnection
- | Rated current up to 15 A
- | Fits any Schaffner IEC C14 inlet filter
- | Retrofit for any IEC C14 inlet
- | Various power line plugs for international usage

[Datasheet PDF >](#)

### IL 13P IEC C13 Rewireable Angled Connectors with Locking System



- | Locking system for standardized IEC C14 inlet filter
- | No accidental disconnection
- | Rated current up to 15 A
- | Fits any Schaffner IEC C14 inlet filter
- | Retrofit for any IEC C14 inlet
- | Various power line plugs for international usage

[Datasheet PDF >](#)

### IL 13P IEC C13 Rewireable Connectors with Locking System



- | Guards against accidental disconnection
- | Requires no other equipment or special inlets to secure it
- | Rewireable - offering total flexibility when assembling cables
- | Fits any Schaffner IEC C14 inlet Filter
- | Can be retrofitted
- | Various power line plugs for international usage
- | LSZH - Low smoke zero halogen

[Datasheet PDF >](#)



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