

## Excellent Performance EMC/EMI Filter

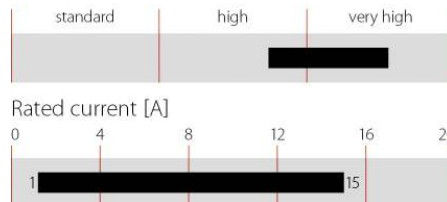


- Superior attenuation performance
- Optional earth line choke
- Complies with IEC/EN 60601-1
- Snap-in versions (S and S1 type)
- Hot inlet versions (HI type)



### Performance indicators

Attenuation performance



### 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 15 A @ 50 °C max.                                                                                        |
| <b>Approvals by rated current</b>                | 1 to 10 A (ENEC, CQC)<br>1 to 15 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 1000 VAC for 2 sec |
| <b>Protection category</b>                       | IP40 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/230V (Mil-HB-217F)</b>            | ≤8A: 2,035,000 hours<br>≤15A: 1,035,000 hours                                                                 |

### Approvals



(CQC except HI-types)

The FN 9244 IEC inlet filter combines an IEC inlet and mains filter with superior filter attenuation in a small form factor. Choosing the FN 9244 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 amperage ratings, output connections, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

### Features and benefits

- Exceptional conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear/front or snap-in mounting.
- Standard or wide mounting flange.
- Optional medical versions (B type) comply with the requirements of IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing.
- Optional earth line choke see FN 9244E data sheet.
- Custom-specific versions are available on request.

### Typical applications

- Portable 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 devices (MDD)
- In-vitro diagnostic medical devices (IVDD)
- Rack mounting equipment

Filter selection table

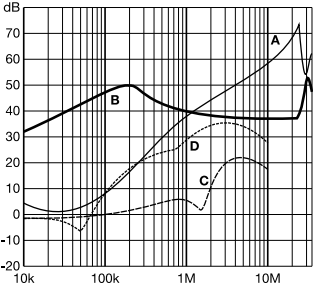
| Filter           | Rated current   | Leakage current* | Inductance | Capacitance |      | Resistance | Output connections                                                                  | Weight |
|------------------|-----------------|------------------|------------|-------------|------|------------|-------------------------------------------------------------------------------------|--------|
|                  | @ 50 °C (25 °C) | @ 250 VAC/50 Hz  | L          | Cx          | Cy   | R          |                                                                                     |        |
|                  | [A]             | [µA]             | [mH]       | [µF]        | [nF] | [kΩ]       |  | [g]    |
| FN9244x-1-06     | 1 (1.2)         | 373              | 59.53      | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-3-06     | 3 (3.5)         | 373              | 13.45      | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-6-06     | 6 (7.2)         | 373              | 4.1        | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-8-06     | 8 (10.6)        | 373              | 2.3        | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-10-06    | 10 (11.6)       | 373              | 1.02       | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-12-06    | 12 (12)         | 373              | 0.58       | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-15-06    | 15 (15)         | 373              | 0.4        | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-12-06HI  | 12 (12)         | 373              | 0.58       | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244x-15-06HI  | 15 (15)         | 373              | 0.4        | 0.1         | 2.2  |            | -06                                                                                 | 38     |
| FN9244xR-1-06    | 1 (1.2)         | 373              | 59.53      | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-3-06    | 3 (3.5)         | 373              | 13.45      | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-6-06    | 6 (7.2)         | 373              | 4.1        | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-8-06    | 8 (10.6)        | 373              | 2.3        | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-10-06   | 10 (11.6)       | 373              | 1.02       | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-12-06   | 12 (12)         | 373              | 0.58       | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-15-06   | 15 (15)         | 373              | 0.4        | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-12-06HI | 12 (12)         | 373              | 0.58       | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xR-15-06HI | 15 (15)         | 373              | 0.4        | 0.1         | 2.2  | 1000       | -06                                                                                 | 38     |
| FN9244xB-1-06    | 1 (1.2)         | 2                | 59.53      | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-3-06    | 3 (3.5)         | 2                | 13.45      | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-6-06    | 6 (7.2)         | 2                | 4.1        | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-8-06    | 8 (10.6)        | 2                | 2.3        | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-10-06   | 10 (11.6)       | 2                | 1.02       | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-12-06   | 12 (12)         | 2                | 0.58       | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-15-06   | 15 (15)         | 2                | 0.4        | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-12-06HI | 12 (12)         | 2                | 0.58       | 0.1         |      | 1000       | -06                                                                                 | 38     |
| FN9244xB-15-06HI | 15 (15)         | 2                | 0.4        | 0.1         |      | 1000       | -06                                                                                 | 38     |

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

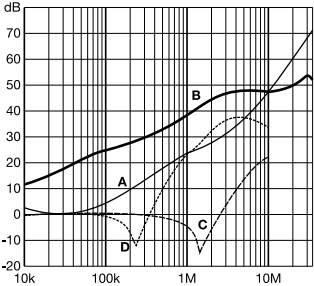
Typical filter attenuation

Per CISPR 17; A = 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

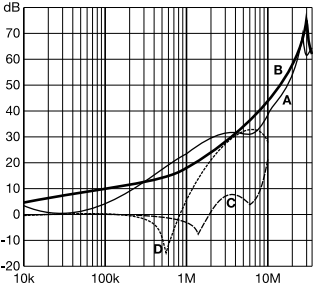
1 and 3 A types



6 to 10 A types

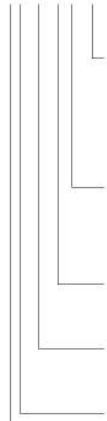


12 and 15 A types



## Product selector

FN 9244xx-yy-...HI-zz



Snap-in range for S version only

Blank: Snap-in range 0.7 to 1.5mm

20: Snap-in range 1.5 to 2.2mm

Blank: Standard IEC inlet type C14

HI: Hot IEC inlet type C16 (12 and 15A types only)

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

1 to 15: Rated current

Blank: Standard version

R: Bleed resistor

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

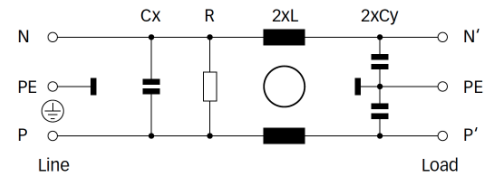
Blank: Standard housing with mounting flanges

U: Housing with wider mounting flanges

S: Snap-in version, snapper on vertical side

S1: Snap-in version, snapper on horizontal side

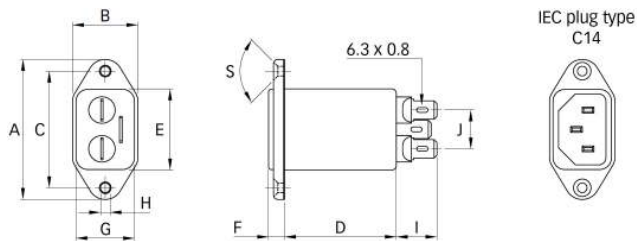
## Typical electrical schematic



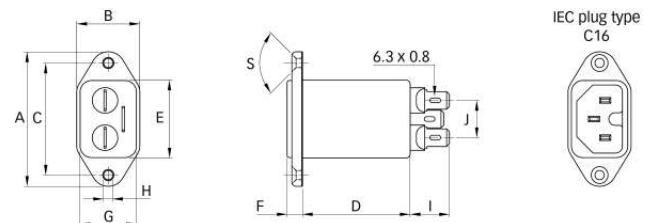
For example: FN 9244B-15-06, FN 9244S1B-10-06-20, FN 9244R-12-06HI, FN 9244UB-8-06

## Mechanical data

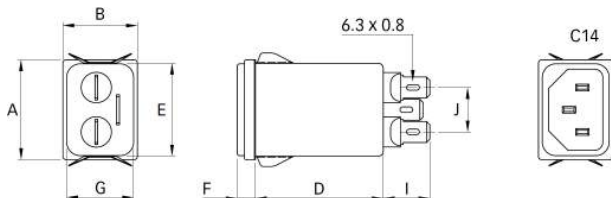
## FN 9244



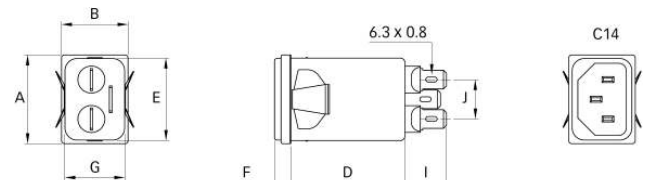
## FN 9244-HI



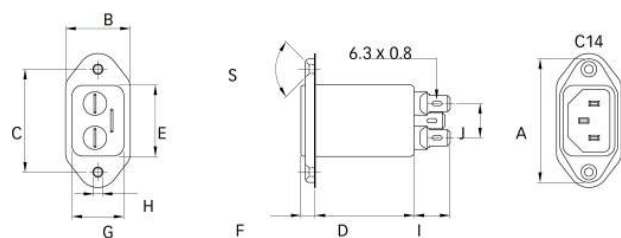
## FN 9244S



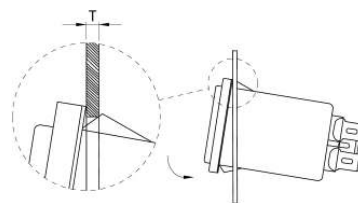
## FN 9244S1



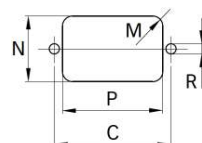
## FN 9244U



## Installation



## Panel cut out



## Dimensions

|           | FN 9244 | FN 9244U | FN 92244S | FN 92244S1 | FN 9244-HI |
|-----------|---------|----------|-----------|------------|------------|
| <b>A</b>  | 48      | 51.85    | 29.9      | 29.9       | 48         |
| <b>B</b>  | 22.5    | 25       | 22.4      | 22.4       | 22.5       |
| <b>C</b>  | 40 ±0.2 | 40 ±0.2  |           |            | 40 ±0.2    |
| <b>D</b>  | 38.4    | 38.25    | 38.4      | 38.4       | 38.4       |
| <b>E</b>  | 27.8    | 27.8     | 27.8      | 27.8       | 27.8       |
| <b>F</b>  | 5.5     | 5.5      | 5.5       | 5.5        | 5.5        |
| <b>G</b>  | 20.1    | 20.1     | 20.1      | 20.1       | 20.1       |
| <b>H</b>  | Ø 3.3   | Ø 3.3    |           |            | Ø 3.3      |
| <b>I</b>  | 14      | 14.1     | 14        | 14         | 14         |
| <b>J</b>  | 13.3    | 13.3     | 13.3      | 13.3       | 13.3       |
| <b>M</b>  | R ≤ 3   | R ≤ 3    | R ≤ 1.5   | R ≤ 1.5    | R ≤ 3      |
| <b>N</b>  | 21.5    | 21.5     | 20.8      | 21.9       | 21.5       |
| <b>P</b>  | 28.5    | 28.5     | 29.4      | 28.5       | 28.5       |
| <b>R</b>  | M3      | M3       |           |            | M3         |
| <b>S</b>  | 90°     | 90°      |           |            | 90°        |
| <b>T*</b> |         |          | 0.7-1.5   | 0.7-1.5    |            |
| <b>T*</b> |         |          | 1.5-2.2   | 1.5-2.2    |            |

\* For selecting the panel thickness, please refer to the filter selector table.

All dimensions in mm; 1 inch = 25.4 mm

Tolerances according: ISO 2768-m / EN 22768-m

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on connectors.



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