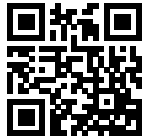


# Compact Performance EMI Filter



- Rated currents from 3 to 16 A
- Economic high performance filter

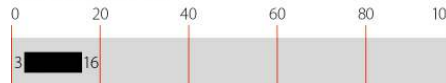


## Performance indicators

Attenuation performance



Rated current [A]



## Approvals



## Features and benefits

- FN 9675 filters are designed for easy and fast chassis mounting.
- FN 9675 offers a economic combination of performance/size ratio.
- All filters provide a high symmetrical and asymmetrical attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Economic high performance filter attenuation suitable to be used in a broad range of applications.
- Faston connection with additional spade solder possibility or screw connection.
- Custom-specific versions on request.

## Technical specifications

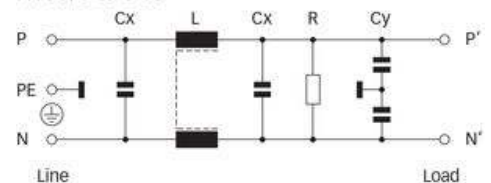
|                                                  |                                                      |
|--------------------------------------------------|------------------------------------------------------|
| <b>Maximum continuous operating voltage</b>      | 250 VAC, 50/60 Hz                                    |
| <b>Operating frequency</b>                       | dc to 400 Hz                                         |
| <b>Rated currents</b>                            | 3 to 16 A @ 40 °C max.                               |
| <b>High potential test voltage</b>               | P → PE 2000 VAC for 2 sec<br>P → N 760 VAC for 2 sec |
| <b>Temperature range (operation and storage)</b> | -25 °C to +100 °C (25/100/21)                        |
| <b>Flammability corresponding to</b>             | UL 94 V-2 or better                                  |
| <b>Design corresponding to</b>                   | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939           |
| <b>MTBF @ 40°C/230V (Mil-HB-217F)</b>            | 400,000 hours (FN 9675)<br>280,000 hours (FN 9676)   |

## Typical applications

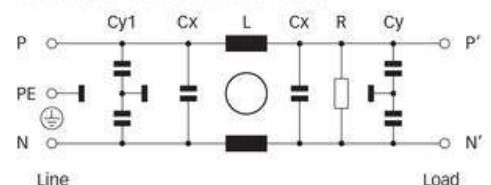
- Electrical and electronic equipment
- Consumer goods
- Household equipment
- Power supplies
- Office automation equipment
- Datacom equipment

## Typical electrical schematic

FN 9675-3/-6-06



FN 9675-16-03 and FN 9676-16-03



## Filter selection table

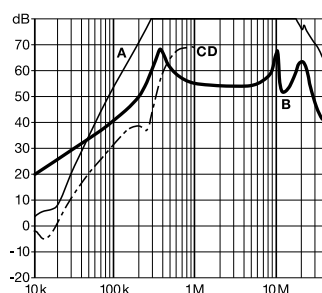
| Filter               | Rated current<br>@ 40 °C (25 °C) | Leakage current*<br>@ 230 VAC/50 Hz | Inductance<br>L | Capacitance |            |             | Resistance<br>R | Input/Output<br>connections                                                         |                                                                                     | Weight |
|----------------------|----------------------------------|-------------------------------------|-----------------|-------------|------------|-------------|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------|
|                      | [A]                              | [μA]                                | [mH]            | Cx<br>[nF]  | Cy<br>[nF] | Cy1<br>[nF] | [kΩ]            |  |  | [g]    |
| <b>FN 9675-3-06</b>  | 3 (3.5)                          | 410                                 | 18              | 680         | 4.7        |             | 470             |                                                                                     | -06                                                                                 | 270    |
| <b>FN 9675-6-06</b>  | 6 (6.9)                          | 410                                 | 3               | 680         | 4.7        |             | 470             |                                                                                     | -06                                                                                 | 270    |
| <b>FN 9675-16-03</b> | 16 (18.4)                        | 410                                 | 10.2            | 1000        | 4.7        |             | 470             | -03                                                                                 |                                                                                     | 850    |
| <b>FN 9676-16-03</b> | 16 (18.4)                        | 1900                                | 10.2            | 1000        | 15         | 6.8         | 470             | -03                                                                                 |                                                                                     | 1050   |

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

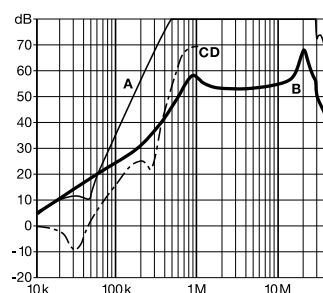
## Typical filter attenuation

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

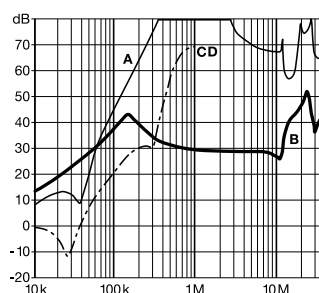
3 A types



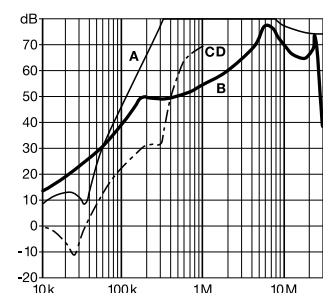
6 A types



16 A types (FN 9675)

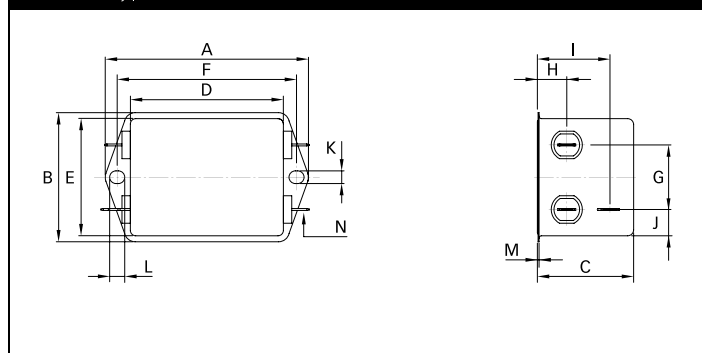


16 A types (FN 9676)

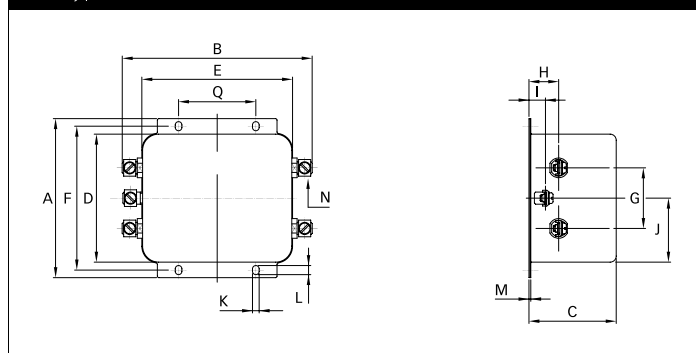


## Mechanical data

3 and 6 A types



16 A types



## Dimensions

|          | 3 A       | 6 A       | 16 A     | Tolerances |
|----------|-----------|-----------|----------|------------|
| <b>A</b> | 85        | 85        | 105      | ±0.5       |
| <b>B</b> | 54        | 54        | 126      | ±0.5       |
| <b>C</b> | 40.3      | 54        | 126      | ±1         |
| <b>D</b> | 40.3      | 40.3      | 57       | ±1         |
| <b>E</b> | 64.4      | 64.4      | 84.5     | ±0.5       |
| <b>F</b> | 49.8      | 49.8      | 99.5     | ±0.2       |
| <b>G</b> | 27        | 27        | 40       | ±0.5       |
| <b>H</b> | 12.3      | 12.3      | 19       | ±0.5       |
| <b>I</b> | 29.8      | 29.8      | 11       | ±0.5       |
| <b>J</b> | 11.4      | 11.4      | 42.25    | ±0.5       |
| <b>K</b> | 5.3       | 5.3       | 4.4      |            |
| <b>L</b> | 6.3       | 6.3       | 6        |            |
| <b>M</b> | 0.7       | 0.7       | 1.2      |            |
| <b>N</b> | 6.3 x 0.8 | 6.3 X 0.8 | UNC 8-32 |            |
| <b>Q</b> |           |           | 51       | ±0.1       |

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



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