

# 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



## Approvals



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.

## 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) 16 A (Semko) for 16 and 20 A types 1 to 20 A (UL, CSA)
<b>High potential test voltage</b>	P → PE 2000 VAC for 2 sec (standard types) P → PE 2500 VAC for 2 sec (B types) P → N 1100 VAC for 2 sec (1 to 10 A types) P → N 1100 VDC for 2 sec (16 and 20 A types)
<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>	1,600,000 hours

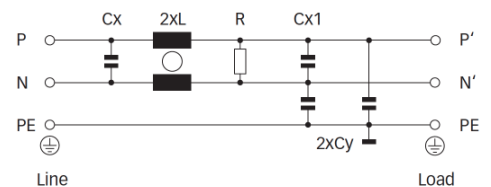
## Features and benefits

- | Excellent conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- | Rear mounting
- | Optional low leakage current versions for medical applications
- | 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

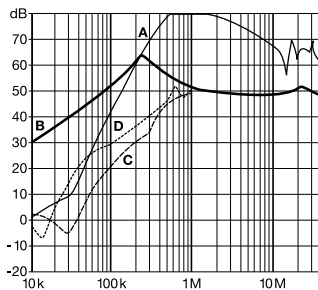
Filter	Rated current @ 40 °C (25 °C)	Leakage current* @ 230 VAC/50 Hz	Inductance L	Capacitance		Resistance R	Output connections 	Weight [g]
	[A]	[µA]	[mH]	Cx [µF]	Cy [nF]	[kΩ]		
<b>FN9246-1-06</b>	1 (1.2)	373	50	1.22	2.2	470	-06	140
<b>FN9246-3-06</b>	3 (3.5)	373	14	1.22	2.2	470	-06	140
<b>FN9246-6-06</b>	6 (7.2)	373	7	1.22	2.2	470	-06	140
<b>FN9246-10-06</b>	10 (12)	373	3	1.22	2.2	470	-06	140
<b>FN9246-12-06</b>	12 (14)	373	1.85	1.22	2.2	470	-06	140
<b>FN9246-15-06</b>	15 (18)	373	0.89	1.22	2.2	470	-06	140
<b>FN9246-16-06</b>	16 (18.5)	797	2.5	1.22	4.7	470	-06	275
<b>FN9246-20-06</b>	20 (23)	797	1.5	1.22	4.7	470	-06	275
<b>FN9246B-1-06</b>	1 (1.2)	2	50	1.22		470	-06	140
<b>FN9246B-3-06</b>	3 (3.5)	2	14	1.22		470	-06	140
<b>FN9246B-6-06</b>	6 (7.2)	2	7	1.22		470	-06	140
<b>FN9246B-10-06</b>	10 (11.6)	2	3	1.22		470	-06	140
<b>FN9246B-12-06</b>	12 (14)	2	1.85	1.22		470	-06	140
<b>FN9246B-15-06</b>	15 (18)	2	0.89	1.22		470	-06	140
<b>FN9246B-16-06</b>	16 (18.5)	2	2.5	1.22		470	-06	275
<b>FN9246B-20-06</b>	20 (23)	2	1.5	1.22		470	-06	275

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

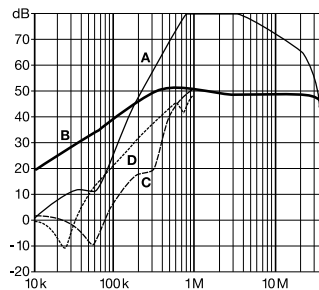
### Typical filter attenuation

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

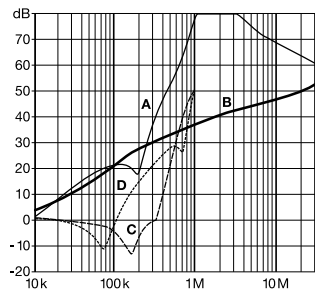
1 A types



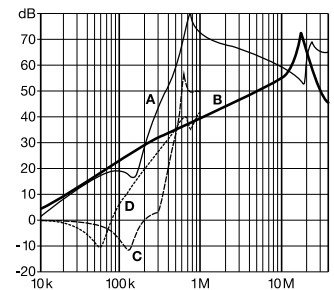
3 to 10 A types



12 and 15 A types



16 and 20 A types



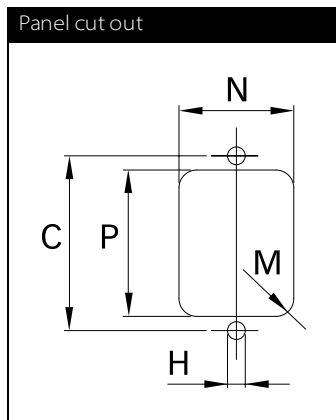
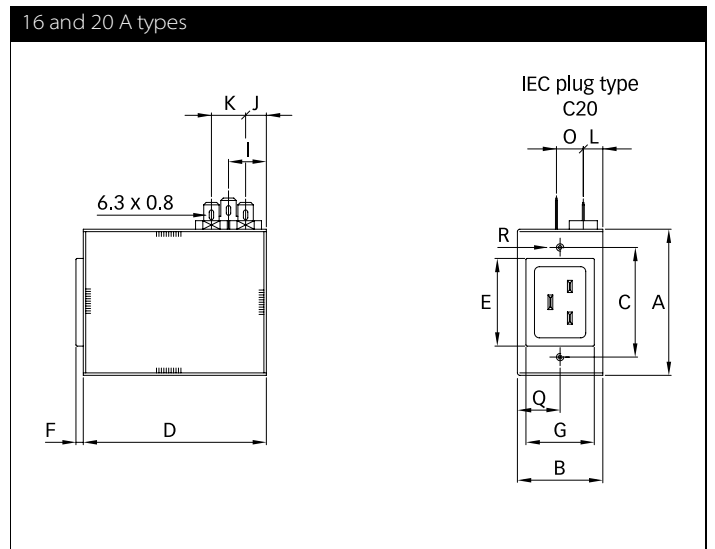
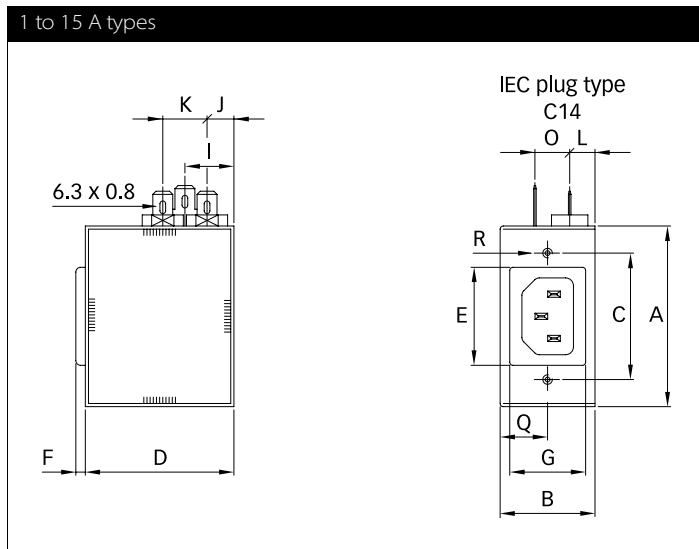
**Product selector**

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 9246B-10-06

**Mechanical data**



	<b>1 A</b>	<b>3 A</b>	<b>6 A</b>	<b>10 A</b>	<b>12 A</b>	<b>15 A</b>	<b>16 A</b>	<b>20 A</b>
<b>A</b>	57.15	57.15	57.15	57.15	57.15	57.15	60	60
<b>B</b>	30	30	30	30	30	30	35	35
<b>C</b>	40	40	40	40	40	40	45	45
<b>D</b>	47	47	47	47	47	47	75	75
<b>E</b>	31	31	31	31	31	31	36	36
<b>F</b>	3	3	3	3	3	3	3	3
<b>G</b>	24	24	24	24	24	24	28	28
<b>H</b>	Ø 3.5	Ø 3.5	Ø 3.5	Ø 3.5	Ø 3.5	Ø 3.5	Ø 3.5	Ø 3.5
<b>I</b>	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
<b>J</b>	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
<b>K</b>	14	14	14	14	14	14	14	14
<b>L</b>	8	8	8	8	8	8	8	8
<b>M</b>	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5	R ≤ 1.5
<b>N</b>	25	25	25	25	25	25	29	29
<b>O</b>	11	11	11	11	11	11	11	11
<b>P</b>	32	32	32	32	32	32	37	37
<b>Q</b>	15	15	15	15	15	15	17.5	17.5
<b>R</b>				M3 x 10 max.				

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



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