

# 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]



### 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.

### 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

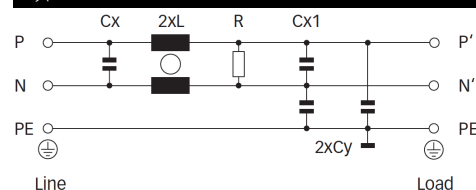
### Technical specifications

<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>	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


### 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



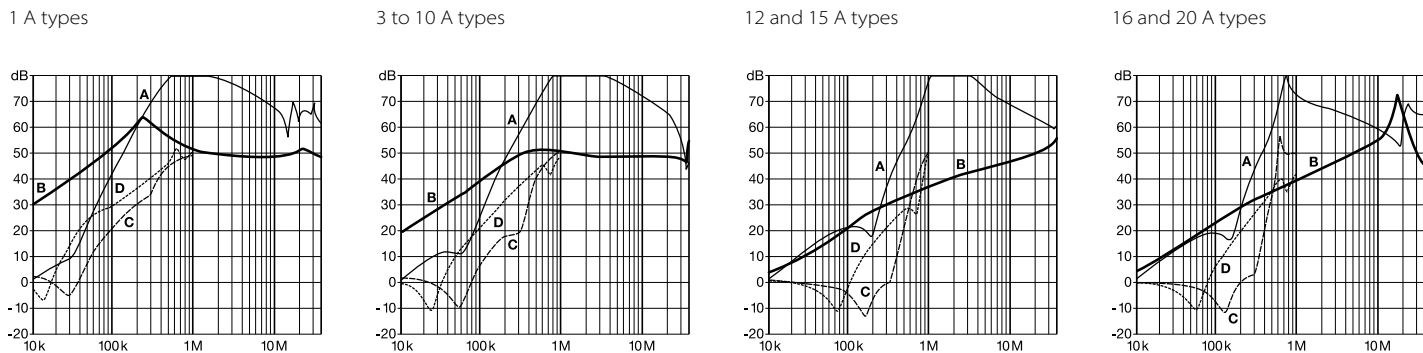
### Filter selection table

Filter	Rated current	Leakage current*	Inductance L	Capacitance		Resistance R	Output connections 	Weight
	@ 40°C (25°C)	@ 250 VAC/50 Hz (@ 120 VAC/60 Hz)		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.

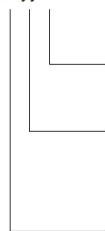
### Typical filter attenuation

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



### Product selector

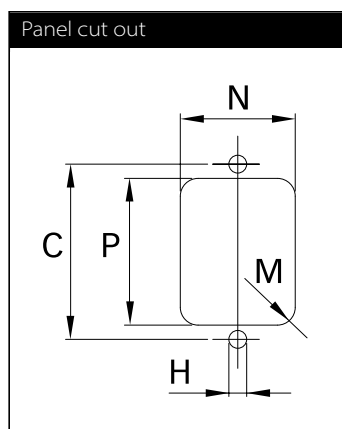
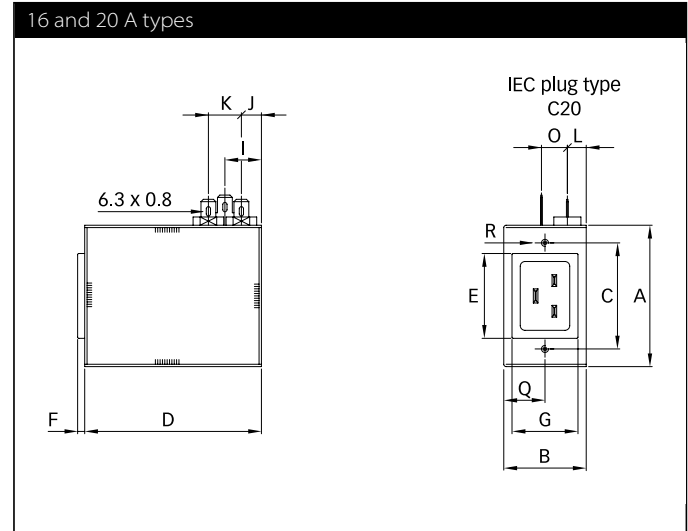
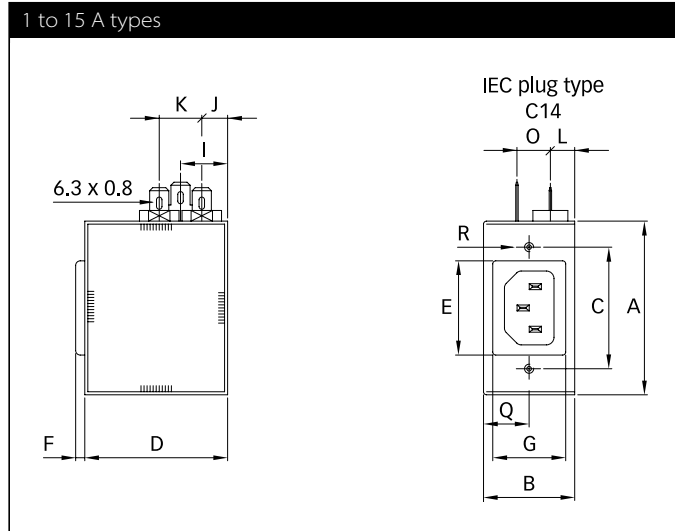
FN 9246x-yy--



- 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
<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>	Ø3.5	Ø3.5	Ø3.5	Ø3.5	Ø3.5	Ø3.5	Ø3.5	Ø3.5
<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



## Headquarters, global innovation and development

### Switzerland

#### Schaffner Group

Nordstrasse 11  
4542 Luterbach  
T +41 32 681 66 26  
[info@schaffner.com](mailto:info@schaffner.com)  
[www.schaffner.com](http://www.schaffner.com)



## Sales and application centers

### China

#### Schaffner EMC Ltd. Shanghai

T20-3 C, No 565 Chuangye Road,  
Pudong district  
201201 Shanghai  
T +86 21 3813 9500  
[cschina@schaffner.com](mailto:cschina@schaffner.com)  
[www.schaffner.com.cn](http://www.schaffner.com.cn)

### Finland

#### Schaffner Oy

Sauvonrinne 19 H  
08500 Lohja  
T +358 50 468 7284  
[finlandsales@schaffner.com](mailto:finlandsales@schaffner.com)

### France

#### Schaffner EMC S.A.S.

16-20 Rue Louis Rameau  
95875 Bezons  
T +33 1 34 34 30 60  
F +33 1 39 47 02 28  
[francesales@schaffner.com](mailto:francesales@schaffner.com)

### Germany

#### Schaffner Deutschland GmbH

Schoemperlenstrasse 12B  
76185 Karlsruhe  
T +49 721 56910  
F +49 721 569110  
[germanysales@schaffner.com](mailto:germanysales@schaffner.com)

### India

#### Schaffner India Pvt. Ltd

REGUS WORLD TRADE CENTRE  
WTC, 22nd Floor Unit No 2238, Brigade  
Gateway Campus, 26/1, Dr. Rajkumar Road  
Malleswaram (W)  
560055 Bangalore  
T +91 80 67935355  
[indiasales@schaffner.com](mailto:indiasales@schaffner.com)

### Italy

#### Schaffner EMC S.r.l.

Via Ticino, 30  
20900 Monza (MB)  
T +39 039 21 41 070  
[italysales@schaffner.com](mailto:italysales@schaffner.com)

### Japan

#### Schaffner EMC K.K.

1-32-12, Kamiyama, Setagaya-ku  
7F Mitsui-seimei Sangenjaya Bldg.  
154-0011 Tokyo  
T +81 3 5712 3650  
F +81 3 5712 3651  
[japansales@schaffner.com](mailto:japansales@schaffner.com)  
[www.schaffner.jp](http://www.schaffner.jp)

### Singapore

#### Schaffner EMC Pte Ltd.

#05-09, Kg Ubi Ind. Estate  
408705 Singapore  
T +65 6377 3283  
F +65 6377 3281  
[singaporesales@schaffner.com](mailto:singaporesales@schaffner.com)

### Spain

#### Schaffner EMC España

Calle Caléndula 93, Miniparc III, Edificio E  
El Soto de Moraleja, Alcobendas  
28109 Madrid  
T +34 917 912 900  
F +34 917 912 901  
[spainsales@schaffner.com](mailto:spainsales@schaffner.com)

### Sweden

#### Schaffner EMC AB

Tegeluddsvägen 76, 2tr  
115 28 Stockholm  
T +46 8 5050 2425  
[swedensales@schaffner.com](mailto:swedensales@schaffner.com)  
[www.schaffner.com](http://www.schaffner.com)

### Switzerland

#### Schaffner EMV AG

Nordstrasse 11  
4542 Luterbach  
T +41 32 681 66 26  
[switzerlandsales@schaffner.com](mailto:switzerlandsales@schaffner.com)

### Taiwan R.O.C.

#### Schaffner EMV Ltd.

20 Floor-2, No 97, Section 1, XinTai 5th Road  
22175 XiZhi District New Taipei City 22175  
T +886 2 2697 5500  
F +886 2 2697 5533  
[taiwansales@schaffner.com](mailto:taiwansales@schaffner.com)  
[www.schaffner.com.tw](http://www.schaffner.com.tw)

### Thailand

#### Schaffner EMC Co. Ltd.

Northern Region Industrial Estate  
67 Moo 4 Tambon Ban Klang  
Amphur Muangng P.O. Box 14  
51000 Lamphun  
T +66 53 58 11 04  
F +66 53 58 10 19  
[thailandsales@schaffner.com](mailto:thailandsales@schaffner.com)

### United Kingdom

#### Schaffner Ltd.

5 Ashville Way, Molly Millars Lane  
Wokingham  
RG41 2PL Berkshire  
T +44 118 9770070  
F +44 118 9792969  
[uksales@schaffner.com](mailto:uksales@schaffner.com)

### USA

#### Schaffner EMC Inc.

52 Mayfield Avenue  
08837 Edison, New Jersey  
T +1 800 367 5566  
T +1 732 225 9533  
F +1 732 225 4789  
[usasales@schaffner.com](mailto:usasales@schaffner.com)  
[www.schaffnerusa.com](http://www.schaffnerusa.com)

#### Schaffner North America

6722 Thirlane Road  
24019 Roanoke, Virginia  
T +1 276 228 7943  
F +1 276 228 7953

#### Schaffner North America

823 Fairview Road  
24382 Wytheville, Virginia  
T +1 276 228 7943  
F +1 276 228 7258

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