

IEC inlet filters FN 9246

High performance IEC inlet filter

SCHAFFNER

energy efficiency and reliability



- Rated currents up to 20A
- Optional medical versions (B type)

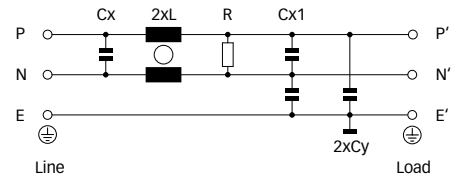
Approvals



Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	1 to 20A @ 50°C
Approvals by rated current:	1 to 10A (Semko)
	16A (Semko) for 16 and 20A types
	1 to 20A (UL, CSA)
High potential test voltage:	P → E 2000VAC for 2 sec (standard types)
	P → E 2500VAC for 2 sec (B types)
	P → N 1100VAC for 2 sec (1 to 10A types)
	P → N 1100VDC for 2 sec (16 and 20A types)
Protection category:	IP40 according to IEC 60529
Temperature range (operation and storage):	-25°C to +85°C (25/85/21)
Design corresponding to:	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
Flammability corresponding to:	UL 94V-2 or better
MTBF @ 40°C/230V (Mil-HB-217F):	1,600,000 hours

Typical electrical schematic



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 20A.
- 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

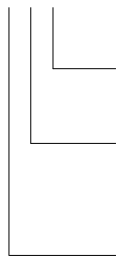
Filter selection table

Filter	Rated current @ 40°C (25°C)	Leakage current* @ 230VAC/50Hz	Inductance L	Capacitance Cx Cy		Resistance R	Output connections 	Weight [g]
	[A]	[µA]	[mH]	[µF]	[nF]	[kΩ]		
FN 9246-1-06	1 (1.2)	373	50	1.22	2.2	470	-06	140
FN 9246-3-06	3 (3.5)	373	14	1.22	2.2	470	-06	140
FN 9246-6-06	6 (7.2)	373	7	1.22	2.2	470	-06	140
FN 9246-10-06	10 (12)	373	3	1.22	2.2	470	-06	140
FN 9246-12-06	12 (14)	373	1.85	1.22	2.2	470	-06	140
FN 9246-15-06	15 (18)	373	0.89	1.22	2.2	470	-06	140
FN 9246-16-06	16 (18.5)	797	2.5	1.22	4.7	470	-06	275
FN 9246-20-06	20 (23)	797	1.5	1.22	4.7	470	-06	275
FN 9246B-1-06	1 (1.2)	2	50	1.22		470	-06	140
FN 9246B-3-06	3 (3.5)	2	14	1.22		470	-06	140
FN 9246B-6-06	6 (7.2)	2	7	1.22		470	-06	140
FN 9246B-10-06	10 (11.6)	2	3	1.22		470	-06	140
FN 9246B-12-06	12 (14)	2	1.85	1.22		470	-06	140
FN 9246B-15-06	15 (18)	2	0.89	1.22		470	-06	140
FN 9246B-16-06	16 (18.5)	2	2.5	1.22		470	-06	275
FN 9246B-20-06	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.

Product selector

FN 9246x-yy-..



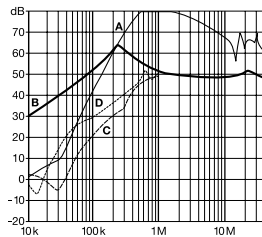
- 06: Faston 6.3 x 0.8mm (spade/soldering)
- 1 to 20: Rated current
Standard IEC inlet type C14 (1 to 15A types), C20 (16 and 20A types)
- Blank: Standard version
- B: Medical version (with bleed resistor and without Y2-capacitor)

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

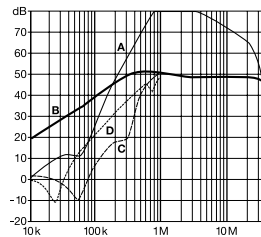
Typical filter attenuation

Per CISPR 17; A = 50Ω/50Ω sym; B = 50Ω/50Ω asym; C = 0.1Ω/100Ω sym; D = 100Ω/0.1Ω sym

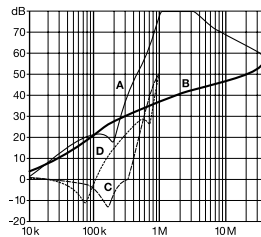
1A types



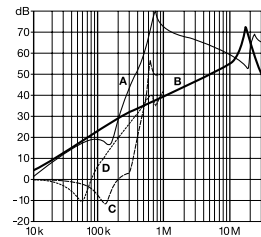
3 to 10A types



12 and 15A types

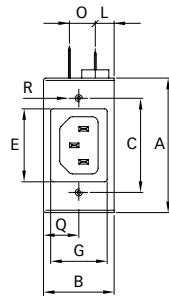
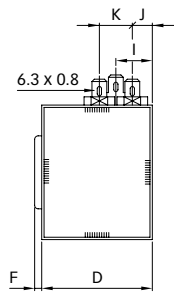


16 and 20A types

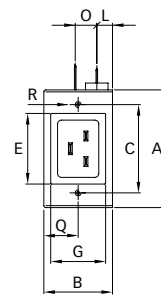
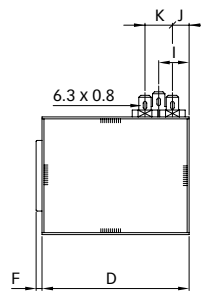


Mechanical data

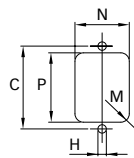
1 to 15A types



16 and 20A types



Panel cut out



Dimensions

	1A	3A	6A	10A	12A	15A	16A	20A
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 ±0.2	25 ±0.2	25 ±0.2	25 ±0.2	25 ±0.2	25 ±0.2	25 ±0.2	25 ±0.2
O	11	11	11	11	11	11	11	11
P	32 ±0.2	32 ±0.2	32 ±0.2	32 ±0.2	32 ±0.2	32 ±0.2	32 ±0.2	32 ±0.2
Q	15	15	15	15	15	15	17.5	17.5
R	M3	M3	M3	M3	M3	M3	M3	M3

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