schaffner
shaping electrical power

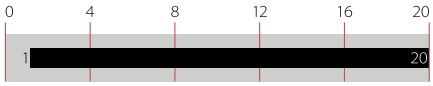
High Performance IEC Inlet Filter

- Rated currents up to 20 A
- Optional medical versions (B type)
- Rear mounting
- Excellant attenuation in the lower
- frequency range

Performance indicators

Attenuation performance

Rated current [A]



Technical specifications

Maximum continuous operating voltage	250 VAC, 50/60 Hz
Operating frequency	DC to 400 Hz
Rated currents	1 to 20 A @ 50°C
Approvals by rated current	1 to 10 A (Semko) 16 A (Semko) for 16 and 20 A types 1 to 20 A (UL, CSA)
High potential test voltage	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)
Protection category	IP 40 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 94 V-2 or better
MTBF @ 40°C/230 V (Mil-HB-217F)	1,600,000 hours

Approvals

RoHS

EN 133200
IEC 60939

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.

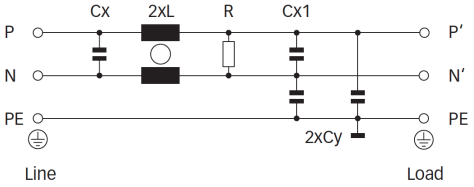
Features and benefits

- 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

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

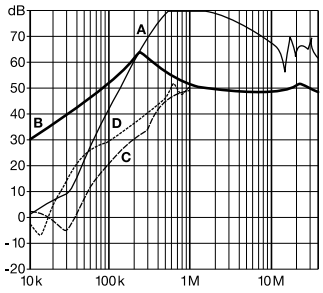
Filter	Rated current @ 40°C (25°C)	Leakage current* @ 250 VAC/50 Hz (@ 120 VAC/60 Hz)	Inductance	Capacitance		Resistance	Output connections	Weight
			L	Cx	Cy	R		
	[A]	[mA]	[mH]	[µF]	[nF]	[kΩ]		[g]
FN 9246-1-06	1 (1.2)	0.31 (0.18)	50	1.22	2.2	470	-06	140
FN 9246-3-06	3 (3.5)	0.31 (0.18)	14	1.22	2.2	470	-06	140
FN 9246-6-06	6 (7.2)	0.31 (0.18)	7	1.22	2.2	470	-06	140
FN 9246-10-06	10 (12)	0.31 (0.18)	3	1.22	2.2	470	-06	140
FN 9246-12-06	12 (14)	0.31 (0.18)	1.85	1.22	2.2	470	-06	140
FN 9246-15-06	15 (18)	0.31 (0.18)	0.89	1.22	2.2	470	-06	140
FN 9246-16-06	16 (18.5)	0.66 (0.38)	2.5	1.22	4.7	470	-06	275
FN 9246-20-06	20 (23)	0.66 (0.38)	1.5	1.22	4.7	470	-06	275
FN 9246 B-1-06	1 (1.2)	0.00	50	1.22		470	-06	140
FN 9246 B-3-06	3 (3.5)	0.00	14	1.22		470	-06	140
FN 9246 B-6-06	6 (7.2)	0.00	7	1.22		470	-06	140
FN 9246 B-10-06	10 (11.6)	0.00	3	1.22		470	-06	140
FN 9246 B-12-06	12 (14)	0.00	1.85	1.22		470	-06	140
FN 9246 B-15-06	15 (18)	0.00	0.89	1.22		470	-06	140
FN 9246 B-16-06	16 (18.5)	0.00	2.5	1.22		470	-06	275
FN 9246 B-20-06	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.

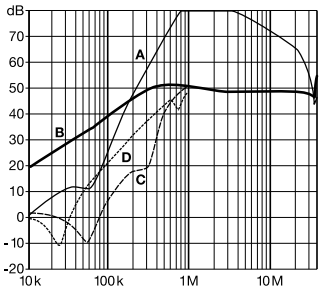
Typical filter attenuation

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

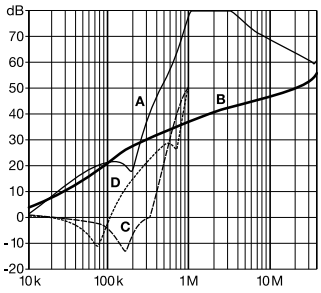
1 A types



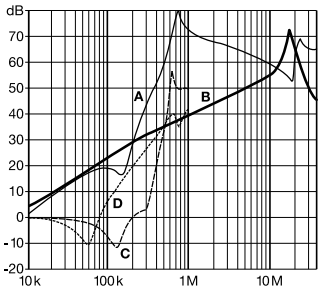
3 to 10 A types



12 and 15 A types



16 and 20 A types



Product selector

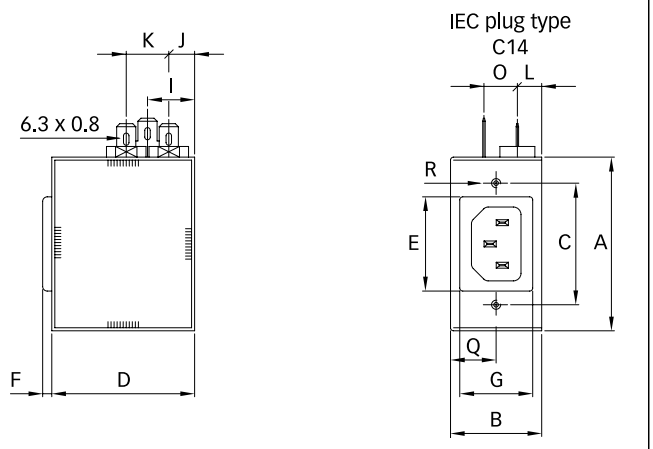
FN 9246x-yy-..

- 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)

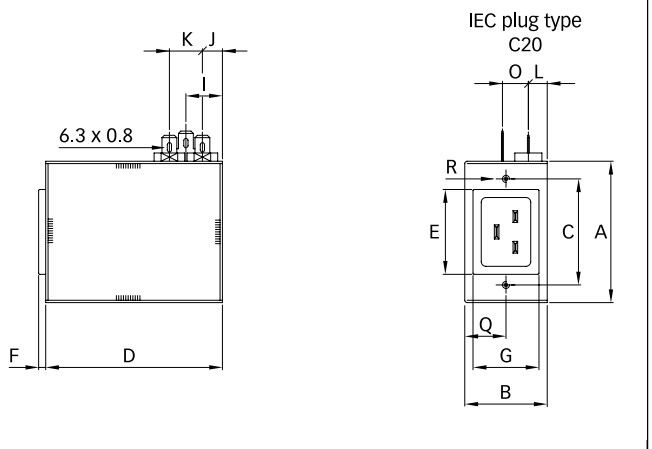
For example: FN 9246-6-06, FN 9246 B-10-06

Mechanical data

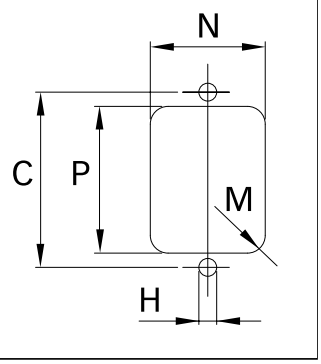
1 to 15 A types



16 and 20 A types



Panel cut out



	1 A	3 A	6 A	10 A	12 A	15 A	16 A	20 A
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	25	25	25	25	25	29	29
O	11	11	11	11	11	11	11	11
P	32	32	32	32	32	32	37	37
Q	15	15	15	15	15	15	17.5	17.5
R				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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