

IEC inlet filters FN 9244

Excellent performance IEC inlet filter

SCHAFFNER

energy efficiency and reliability



- Rated currents up to 15A
- Superior attenuation performance
- Optional earth line choke
- Optional medical versions (B type)
- Snap-in versions (S and S1 type)
- Hot inlet versions (HI type)

Approvals



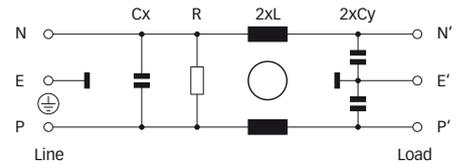
(CQC approval pending)

ROHS
2002/95/EC

Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	1 to 15A @ 50°C
Approvals by rated current:	1 to 10A (ENEC, CQC) 1 to 15A (UL, CSA)
High potential test voltage:	P → E 2000VAC for 2 sec (standard types) P → E 2500VAC for 2 sec (B types) P → N 1000VAC for 2 sec
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):	≤8A: 2,035,000 hours ≤15A: 1,035,000 hours

Typical electrical schematic



The FN 9244 IEC inlet filter combines an IEC inlet and mains filter with superior filter attenuation in a small form factor. Choosing the FN 9244 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 amperage ratings, output connections, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

Features and benefits

- Exceptional conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear/front or snap-in mounting.
- Standard or wide mounting flange.
- Optional medical versions (B type) according to IEC/EN 60601-1.
- Optional earth line choke see FN 9244E data sheet.
- Custom-specific versions are available on request.

Typical applications

- Portable electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical devices (MDD)
- In-vitro diagnostic medical devices (IVDD)
- Rack mounting equipment

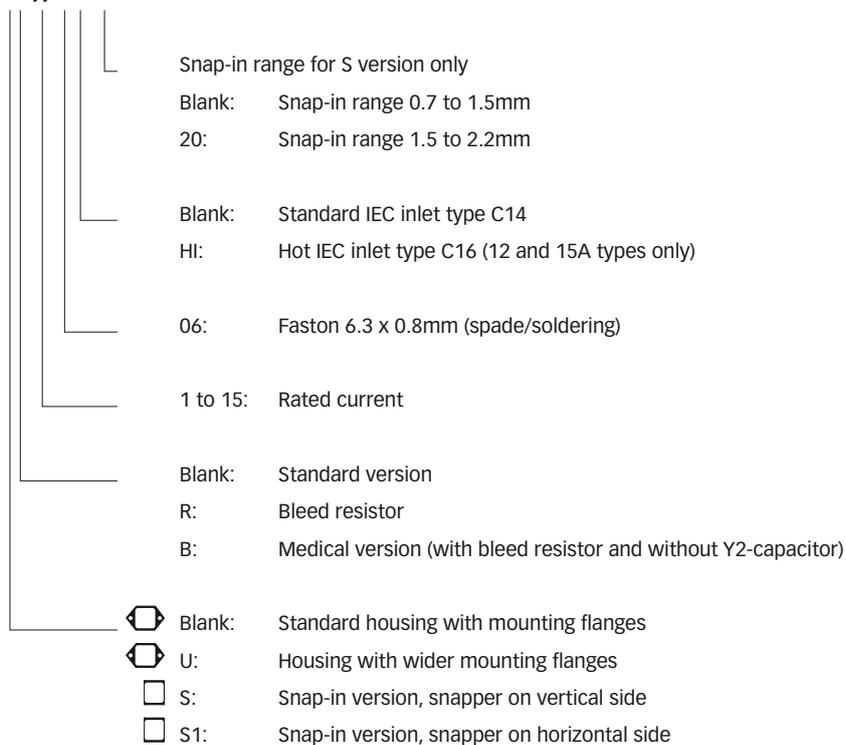
Filter selection table

Filter	Rated current @ 50°C (25°C)	Leakage current* @ 250VAC/50Hz	Inductance L	Capacitance Cx Cy		Resistance R	Output connections	Weight
	[A]	[μA]	[mH]	[μF]	[nF]	[kΩ]		[g]
FN 9244x-1-06	1 (1.2)	373	59.53	0.1	2.2		-06	38
FN 9244x-3-06	3 (3.5)	373	13.45	0.1	2.2		-06	38
FN 9244x-6-06	6 (7.2)	373	4.1	0.1	2.2		-06	38
FN 9244x-8-06	8 (10.6)	373	2.3	0.1	2.2		-06	38
FN 9244x-10-06	10 (11.6)	373	1.02	0.1	2.2		-06	38
FN 9244x-12-06	12 (12)	373	0.58	0.1	2.2		-06	38
FN 9244x-15-06	15 (15)	373	0.4	0.1	2.2		-06	38
FN 9244x-12-06HI	12 (12)	373	0.58	0.1	2.2		-06	38
FN 9244x-15-06HI	15 (15)	373	0.4	0.1	2.2		-06	38
FN 9244xR-1-06	1 (1.2)	373	59.53	0.1	2.2	1000	-06	38
FN 9244xR-3-06	3 (3.5)	373	13.45	0.1	2.2	1000	-06	38
FN 9244xR-6-06	6 (7.2)	373	4.1	0.1	2.2	1000	-06	38
FN 9244xR-8-06	8 (10.6)	373	2.3	0.1	2.2	1000	-06	38
FN 9244xR-10-06	10 (11.6)	373	1.02	0.1	2.2	1000	-06	38
FN 9244xR-12-06	12 (12)	373	0.58	0.1	2.2	1000	-06	38
FN 9244xR-15-06	15 (15)	373	0.4	0.1	2.2	1000	-06	38
FN 9244xR-12-06HI	12 (12)	373	0.58	0.1	2.2	1000	-06	38
FN 9244xR-15-06HI	15 (15)	373	0.4	0.1	2.2	1000	-06	38
FN 9244xB-1-06	1 (1.2)	2	59.53	0.1		1000	-06	38
FN 9244xB-3-06	3 (3.5)	2	13.45	0.1		1000	-06	38
FN 9244xB-6-06	6 (7.2)	2	4.1	0.1		1000	-06	38
FN 9244xB-8-06	8 (10.6)	2	2.3	0.1		1000	-06	38
FN 9244xB-10-06	10 (11.6)	2	1.02	0.1		1000	-06	38
FN 9244xB-12-06	12 (12)	2	0.58	0.1		1000	-06	38
FN 9244xB-15-06	15 (15)	2	0.4	0.1		1000	-06	38
FN 9244xB-12-06HI	12 (12)	2	0.58	0.1		1000	-06	38
FN 9244xB-15-06HI	15 (15)	2	0.4	0.1		1000	-06	38

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

Product selector

FN 9244xx-yy-..HI-zz

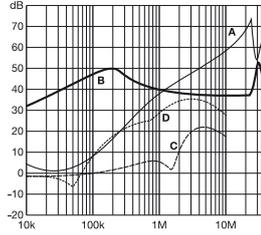


For example: FN 9244B-15-06, FN 9244S1B-10-06-20, FN 9244R-12-06HI, FN 9244UB-8-06

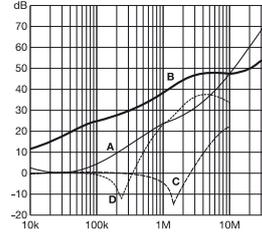
Typical filter attenuation

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

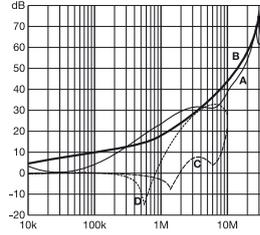
1 and 3A types



6 to 10A types

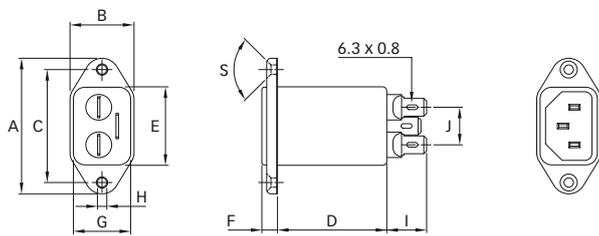


12 and 15A types

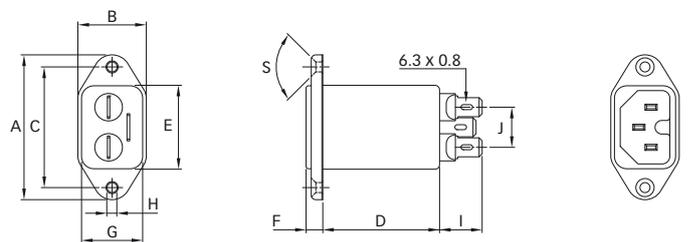


Mechanical data

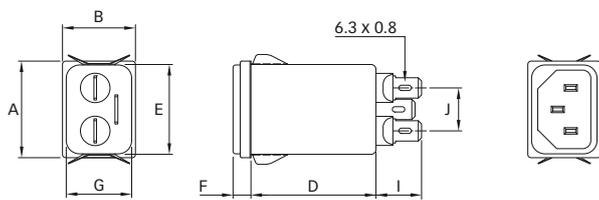
FN 9244



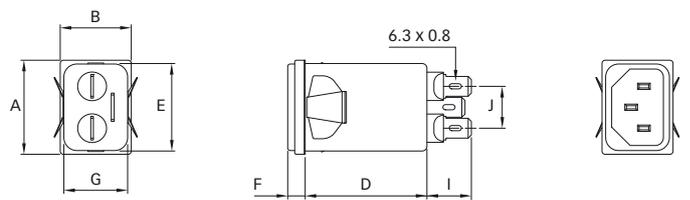
FN 9244-HI



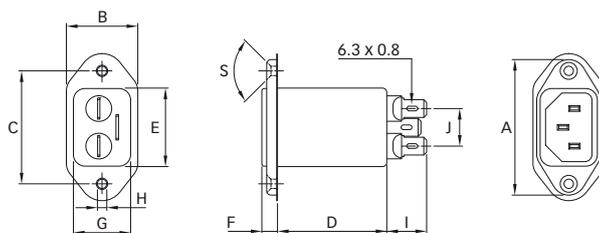
FN 9244S



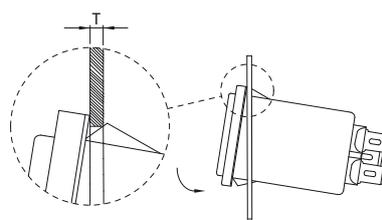
FN 9244S1



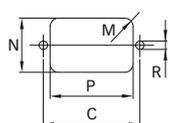
FN 9244U



Installation



Panel cut out



Dimensions

	FN 9244	FN 9244U	FN 9244S	FN 9244S1	FN 9244-HI
A	48	51.85	29.9	29.9	48
B	22.5	25	22.4	22.4	22.5
C	40 ±0.2	40 ±0.2			40 ±0.2
D	38.4	38.25	38.4	38.4	38.4
E	27.8	27.8	27.8	27.8	27.8
F	5.5	5.5	5.5	5.5	5.5
G	20.1	20.1	20.1	20.1	20.1
H	Ø3.3	Ø3.3			Ø3.3
I	14	14.1	14	14	14
J	13.3	13.3	13.3	13.3	13.3
M	R ≤ 3	R ≤ 3	R ≤ 1.5	R ≤ 1.5	R ≤ 3
N	21.5	21.5	20.8	21.9	21.5
P	28.5	28.5	29.4	28.5	28.5
R	M3	M3			M3
S	90°	90°			90°
T*			0.7 - 1.5	0.7 - 1.5	
T*			1.5 - 2.2	1.5 - 2.2	

* For selecting the panel thickness, please refer to the filter selector table.

All dimensions in mm; 1 inch = 25.4mm

Tolerances according: ISO 2768-m / EN 22768-m