

IEC inlet filters FN 9244E

Excellent performance IEC inlet filter with earth line choke

SCHAFFNER

energy efficiency and reliability



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

Approvals



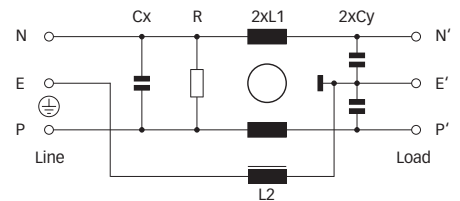
(CQC approval pending)



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):	2,230,000 hours

Typical electrical schematic



The FN 9244E IEC inlet filter combines an IEC inlet and mains filter with superior filter attenuation in a small form factor. The FN 9244E high performance power entry module offers additional EMI suppression on the earth line. Choosing the FN 9244E 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. For types without additional earth line choke please consult the FN 9244 data sheet.


Features and benefits

- Superior conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear/front or snap-in mounting.
- Without earth line choke see FN 9244 data sheet.
- Optional medical versions (B type) according to IEC/EN 60601-1.
- Wide mounting flanges available.
- 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
- Medical devices (MDD)
- In-vitro diagnostic medical devices (IVDD)
- Rack mounting equipment

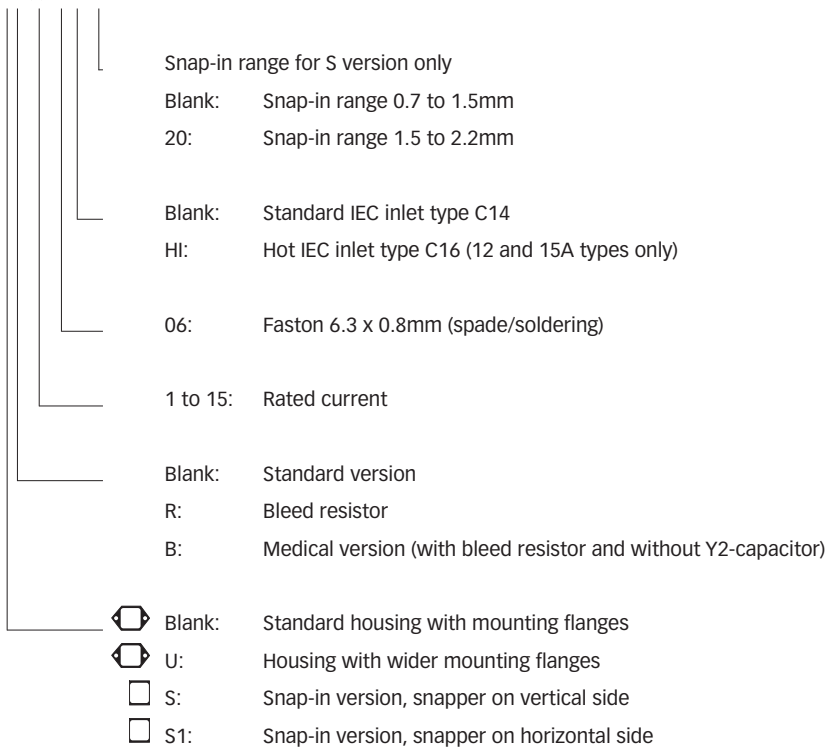
Filter selection table

Filter	Rated current @ 50°C (25°C)	Leakage current* @ 250VAC/50Hz	Inductance		Capacitance		Resistance R	Output connections	Weight
			L1	L2	Cx	Cy			
	[A]	[μA]	[mH]	[mH]	[μF]	[nF]	[kΩ]		[g]
FN 9244Ex-1-06	1 (1.2)	373	59.53	0.335	0.1	2.2		-06	46
FN 9244Ex-3-06	3 (3.5)	373	13.45	0.6	0.1	2.2		-06	46
FN 9244Ex-6-06	6 (7.2)	373	4.1	0.9	0.1	2.2		-06	46
FN 9244Ex-8-06	8 (10.6)	373	2.3	1.0	0.1	2.2		-06	46
FN 9244Ex-10-06	10 (11.6)	373	1.02	1.0	0.1	2.2		-06	46
FN 9244Ex-12-06	12 (12)	373	0.58	1.1	0.1	2.2		-06	46
FN 9244Ex-15-06	15 (15)	373	0.4	1.2	0.1	2.2		-06	46
FN 9244Ex-12-06HI	12 (12)	373	0.58	1.1	0.1	2.2		-06	46
FN 9244Ex-15-06HI	15 (15)	373	0.4	1.2	0.1	2.2		-06	46
FN 9244ExR-1-06	1 (1.2)	373	59.53	0.335	0.1	2.2	1000	-06	46
FN 9244ExR-3-06	3 (3.5)	373	13.45	0.6	0.1	2.2	1000	-06	46
FN 9244ExR-6-06	6 (7.2)	373	4.1	0.9	0.1	2.2	1000	-06	46
FN 9244ExR-8-06	8 (10.6)	373	2.3	1.0	0.1	2.2	1000	-06	46
FN 9244ExR-10-06	10 (11.6)	373	1.02	1.0	0.1	2.2	1000	-06	46
FN 9244ExR-12-06	12 (12)	373	0.58	1.1	0.1	2.2	1000	-06	46
FN 9244ExR-15-06	15 (15)	373	0.4	1.2	0.1	2.2	1000	-06	46
FN 9244ExR-12-06HI	12 (12)	373	0.58	1.1	0.1	2.2	1000	-06	46
FN 9244ExR-15-06HI	15 (15)	373	0.4	1.2	0.1	2.2	1000	-06	46
FN 9244ExB-1-06	1 (1.2)	2	59.53	0.335	0.1		1000	-06	46
FN 9244ExB-3-06	3 (3.5)	2	13.45	0.6	0.1		1000	-06	46
FN 9244ExB-6-06	6 (7.2)	2	4.1	0.9	0.1		1000	-06	46
FN 9244ExB-8-06	8 (10.6)	2	2.3	1.0	0.1		1000	-06	46
FN 9244ExB-10-06	10 (11.6)	2	1.02	1.0	0.1		1000	-06	46
FN 9244ExB-12-06	12 (12)	2	0.58	1.1	0.1		1000	-06	46
FN 9244ExB-15-06	15 (15)	2	0.4	1.2	0.1		1000	-06	46
FN 9244ExB-12-06HI	12 (12)	2	0.58	1.1	0.1		1000	-06	46
FN 9244ExB-15-06HI	15 (15)	2	0.4	1.2	0.1		1000	-06	46

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

Product selector

FN 9244Exx-yy-...HI-zz

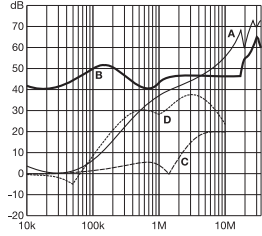


For example: FN 9244E-15-06, FN 9244ES1B-10-06-20, FN 9244ER-12-06HI, FN 9244EUB-8-06

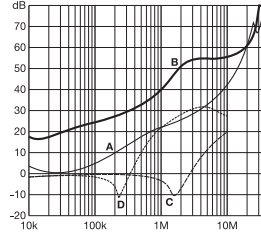
Typical filter attenuation

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

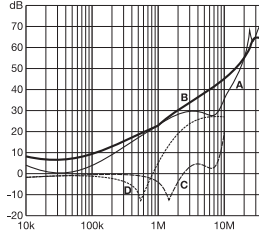
1 and 3A types



6 to 10A types

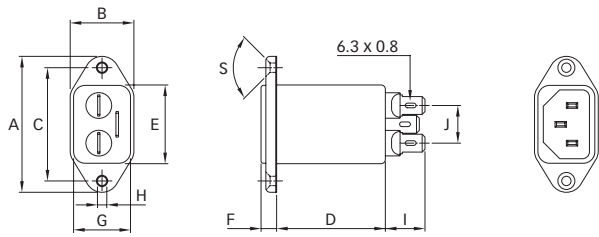


12 and 15A types

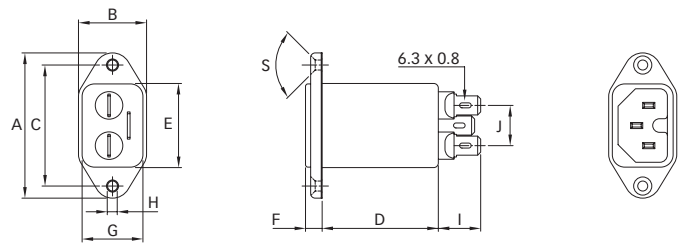


Mechanical data

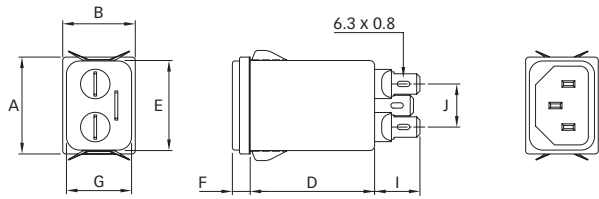
FN 9244E



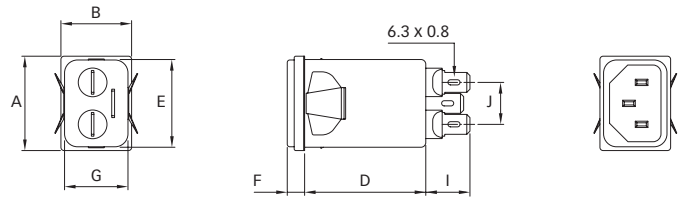
FN 9244E-HI



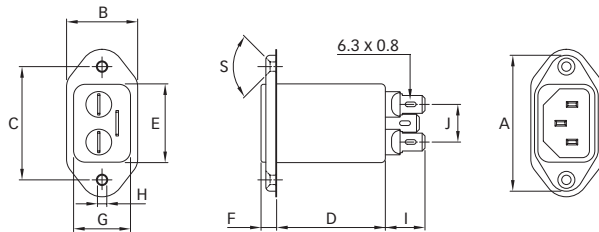
FN 9244ES



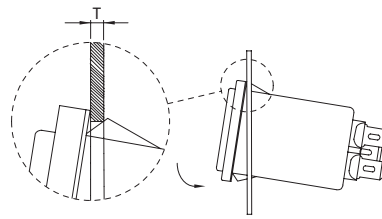
FN 9244ES1



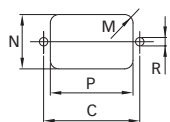
FN 9244EU



Installation



Panel cut out



Dimensions

	FN 9244E	FN 9244EU	FN 9244ES	FN 9244ES1	FN 9244E-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	46.8	46.8	46.8	46.8	46.8
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



energy efficiency and reliability

Headquarters

Schaffner EMV AG

4542 Luterbach, Switzerland

T +41 32 681 66 26

F +41 32 681 66 41

sales@schaffner.com

www.schaffner.com

China

Schaffner EMC Ltd. Shanghai

T +86 21 6813 9855

cschina@schaffner.com

Finland

Schaffner Oy

T +358 19 357 271

finlandsales@schaffner.com

France

Schaffner EMC S.A.S.

T +33 1 34 34 30 60

francesales@schaffner.com

Germany

Schaffner EMV GmbH

T +49 721 56910

germanysales@schaffner.com

Schaffner Jacke GmbH

T +49 2951 6001 0

jacke-trafo@schaffner.com

Italy

Schaffner EMC S.r.l.

T +39 02 66 04 30 45

italysales@schaffner.com

Japan

Schaffner EMC K.K.

T +81 3 5456 0180

japansales@schaffner.com

Singapore

Schaffner EMC Pte Ltd.

T +65 6377 3283

singaporesales@schaffner.com

Sweden

Schaffner EMC AB

T +46 8 5792 1121

swedensales@schaffner.com

Switzerland

Schaffner EMV AG

T +41 32 681 66 26

sales@schaffner.ch

Taiwan

Schaffner EMV Ltd.

T +886 2 87525050

taiwansales@schaffner.com

Thailand

Schaffner EMC Co. Ltd.

T +66 53 58 11 04

thailandsales@schaffner.com

UK

Schaffner Ltd.

T +44 118 9770070

uksales@schaffner.com

USA

Schaffner EMC Inc.

T +1 732 225 9533

Toll free 1 800 367 5566

usasales@schaffner.com

To find your local partner within Schaffner's global network, please go to

www.schaffner.com

August 2008

© 2008 Schaffner EMC.

Specifications subject to change without notice. All trademarks recognized.

Schaffner is an ISO-registered company. Its products are designed and manufactured under the strict quality and environmental requirements of the ISO 9001 and ISO 14001 standards.

This document has been carefully checked. However, Schaffner does not assume any liability for errors or inaccuracies.