

# Excellent Performance EMC/EMI Filter



- Superior attenuation performance
- Optional earth line choke
- Complies with IEC/EN 60601-1 (B type)
- Snap-in versions (S and S1 type)
- Hot inlet versions (HI type)



### Performance indicators

Attenuation performance



Rated current [A]



### Approvals & Compliances



(CQC except HI-types)

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
- FN 9244 B versions comply with the requirements of 1MOP acc. to IEC/EN 60601-1 for creepage and clearance, leakage current and high potential testing
- Optional earth line choke see FN 9244 E data sheet
- Custom-specific versions are available on request

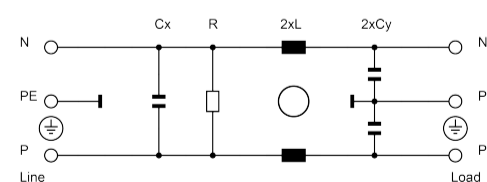
## Technical Specifications

<b>Maximum continuous operating voltage</b>	250 VAC, 50/60 Hz
<b>Rated currents</b>	1 to 15 A @ 50°C max
<b>Operating frequency</b>	DC to 400 Hz
<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 1000 VAC for 2 sec
<b>Temperature range (operation and storage)</b>	-25°C to +85°C (25/85/21)
<b>Protection category</b>	IP 40 according to IEC 60529
<b>Flammability corresponding to</b>	Plastic Material: UL 94 V-0 Laces for -07 version: UL 94 VW-1
<b>Approvals by rated current</b>	1 to 10 A (ENEC, CQC) 1 to 15 A (UL, CSA)
<b>Design corresponding to</b>	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
<b>MTBF</b>	≤8 A: 2,035,000 hours @ 40°C/230 V (Mil-HB-217F) ≤15 A: 1,035,000 hours @ 40°C/230 V (Mil-HB-217F)

### 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

### Typical electrical schematic



### Filter Selection Table

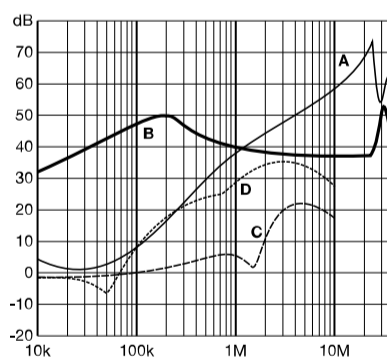
Filter	Rated current @ 50°C (25°C)	Leakage current* @ 250 VAC/50 Hz (@ 120 VAC/60 Hz)	Inductance L	Capacitance		Resistance R	Output connections	Weight
				Cx	Cy			
	[A]	[mA]	[mH]	[μF]	[nF]	[kΩ]		[g]
FN9244x-1-06	1 (1.2)	0.31 (0.18)	59.53	0.1	2.2		-06	38
FN9244x-3-06	3 (3.5)	0.31 (0.18)	13.45	0.1	2.2	-06	38	
FN9244x-6-06	6 (7.2)	0.31 (0.18)	4.1	0.1	2.2	-06	38	
FN9244x-8-06	8 (10.6)	0.31 (0.18)	2.3	0.1	2.2		-06	38
FN9244x-10-06	10 (11.6)	0.31 (0.18)	1.02	0.1	2.2		-06	38
FN9244x-12-06	12 (12)	0.31 (0.18)	0.58	0.1	2.2		-06	38
FN9244x-15-06	15 (15)	0.31 (0.18)	0.4	0.1	2.2		-06	38
FN9244x-12-06HI	12 (12)	0.31 (0.18)	0.58	0.1	2.2		-06	38
FN9244x-15-06HI	15 (15)	0.31 (0.18)	0.4	0.1	2.2		-06	38
FN9244xR-1-06	1 (1.2)	0.31 (0.18)	59.53	0.1	2.2	1000	-06	38
FN9244xR-3-06	3 (3.5)	0.31 (0.18)	13.45	0.1	2.2	1000	-06	38
FN9244xR-6-06	6 (7.2)	0.31 (0.18)	4.1	0.1	2.2	1000	-06	38
FN9244xR-8-06	8 (10.6)	0.31 (0.18)	2.3	0.1	2.2	1000	-06	38
FN9244xR-10-06	10 (11.6)	0.31 (0.18)	1.02	0.1	2.2	1000	-06	38
FN9244xR-12-06	12 (12)	0.31 (0.18)	0.58	0.1	2.2	1000	-06	38
FN9244xR-15-06	15 (15)	0.31 (0.18)	0.4	0.1	2.2	1000	-06	38
FN9244xR-12-06HI	12 (12)	0.31 (0.18)	0.58	0.1	2.2	1000	-06	38
FN9244xR-15-06HI	15 (15)	0.31 (0.18)	0.4	0.1	2.2	1000	-06	38
FN9244xB-1-06	1 (1.2)	0.00	59.53	0.1		1000	-06	38
FN9244xB-3-06	3 (3.5)	0.00	13.45	0.1		1000	-06	38
FN9244xB-6-06	6 (7.2)	0.00	4.1	0.1		1000	-06	38
FN9244xB-8-06	8 (10.6)	0.00	2.3	0.1		1000	-06	38
FN9244xB-10-06	10 (11.6)	0.00	1.02	0.1		1000	-06	38
FN9244xB-12-06	12 (12)	0.00	0.58	0.1		1000	-06	38
FN9244xB-15-06	15 (15)	0.00	0.4	0.1		1000	-06	38
FN9244xB-12-06HI	12 (12)	0.00	0.58	0.1		1000	-06	38
FN9244xB-15-06HI	15 (15)	0.00	0.4	0.1		1000	-06	38

\* 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.

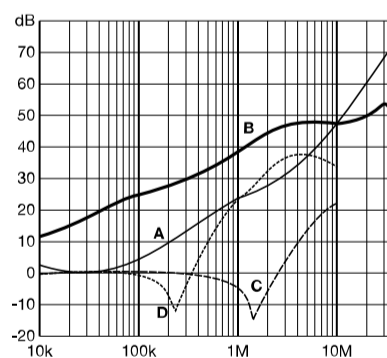
### Typical Filter Attenuation

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

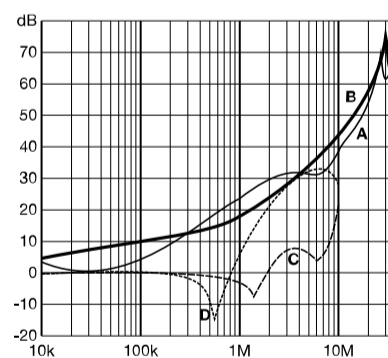
1 and 3 A types



6 to 10 A types

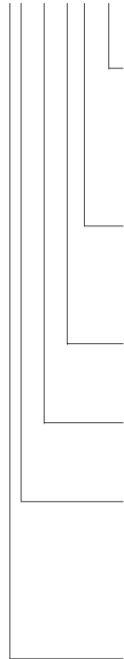


12 and 15 A types



Product selector

FN 9244xx-yy-..HI-zz



- Snap-in range for S version only
- Blank: Snap-in range 0.7 to 1.5mm
- 20: Snap-in range 1.5 to 2.2mm
  
- Blank: Standard IEC inlet type C14
- HI: Hot IEC inlet type C16 (12 and 15A types only)
  
- 06: Faston 6.3 x 0.8mm (spade/soldering)
  
- 1 to 15: Rated current
  
- Blank: Standard version
- R: Bleed resistor
- B: Medical version (with bleed resistor and without Y2-capacitor)
  
- Blank: Standard housing with mounting flanges
- U: Housing with wider mounting flanges
- S: Snap-in version, snapper on vertical side
- S1: Snap-in version, snapper on horizontal side

Distributor Inventory

Check stock levels at global distributors via the QR code



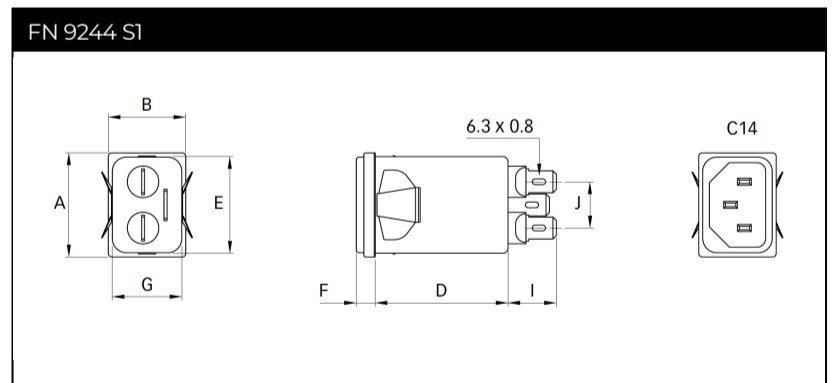
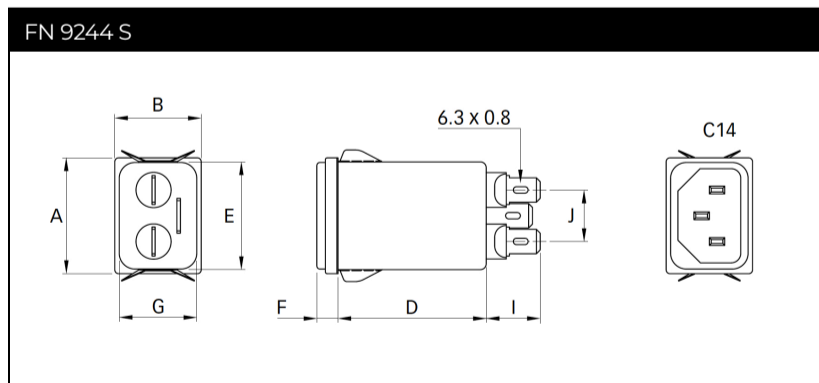
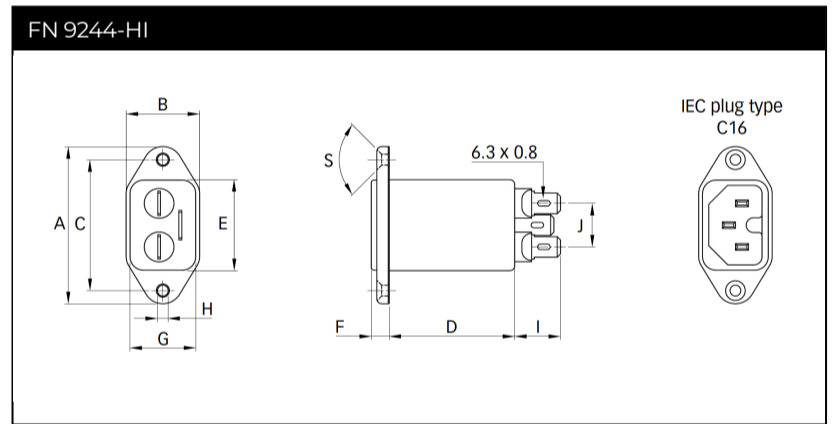
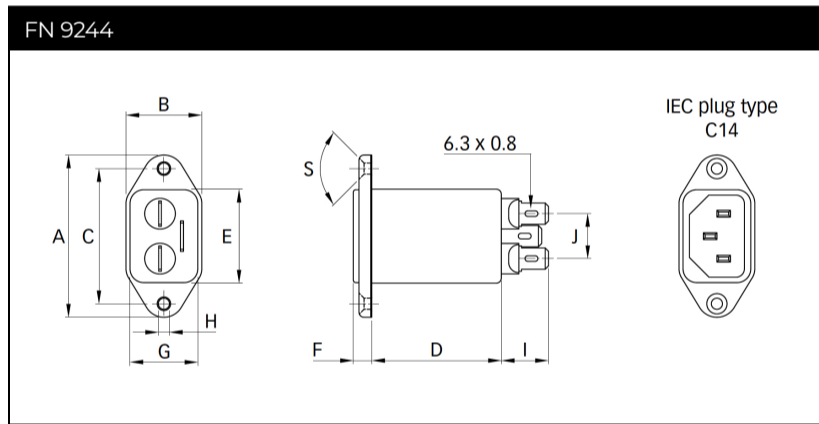
Search for the individual filter at <https://products.schaffner.com/stock> (qr-code)

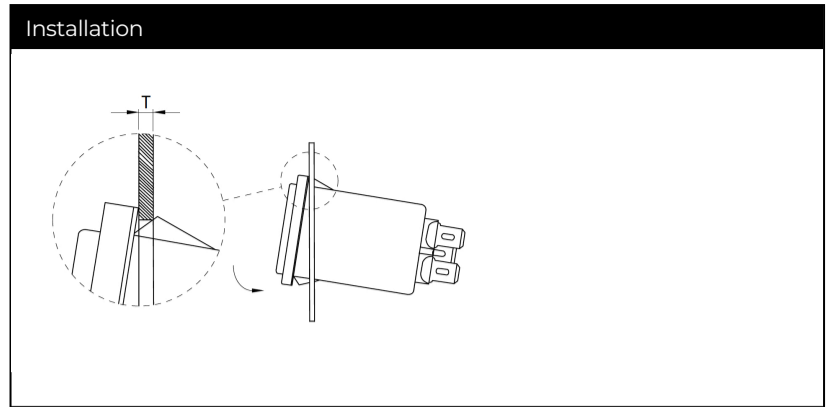
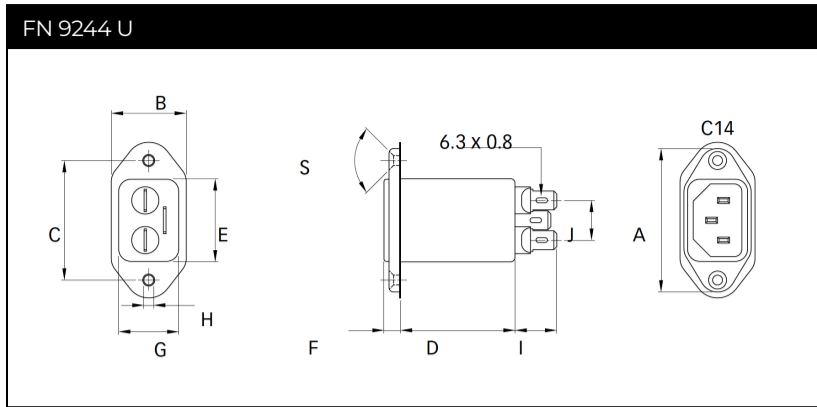
Wider range of stock level availability:

Stock level per types 1 - 15 A	Link
Standard housing types	
Housing with wider mounting flanges (U)	
Snap-in housing types (S&S1)	
Medical versions (B)	
Bleed resistor types (R)	

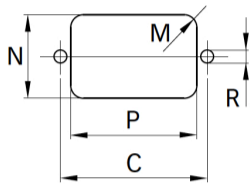
For example: FN 9244 B-15-06, FN 9244 S1B-10-06-20, FN 9244 R-12-06HI, FN 9244 UB-8-06

Mechanical Data





Panel cut out



Dimensions

	FN 9244	FN 9244 U	FN 92244 S	FN 92244 S1	FN 9244-HI	Tol.
A	48	48	29.9	29.9	48	
B	22.4	25	22.4	22.4	22.4	
C	40	40			40	±0.2
D	38.25	38.25	38.25	38.25	38.25	
E	27.8	27.7	27.8	27.8	27.8	+0.6/-0
F	5.7	5.7	5.7	5.7	5.7	
G	20.1	20.1	20.1	20.1	20.1	+0.6/-0
H	Ø3.3	Ø3.3			Ø3.3	
I	14	14	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		

\* Recommended torque for M3 (90° countersunk flat head) is 0.5 Nm

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

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

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on connectors.

## Accessories

### IL 13P IEC C13 Rewireable Connectors with Locking System



IEC  
**Lock+**  
REWIREABLE

The locking system has a tensile force of typical 300N. It is recommended to use it with flange mount filters. For details refer to our Application Note "Using IEC Lock Power Cords with IEC Inlets and Filters".

Schaffner power connector with IEC lock guard against accidental disconnection of all electrical appliances with an IEC inlet. No exchange or modification of the IEC inlet or IEC inlet filter system is needed. Easy retrofit .for all electronic equipments and devices

[Technical Data Sheet >](#)

### IL 13P IEC C13 Rewireable Angled Connectors with Locking System



- Protects appliances that are vulnerable to vibration
- Connector cannot be accidentally pulled or vibrated out of the inlet
- Space availability/constraints
- Different angles for ease of access
- Space saving
- Release locking mechanism
- Prevents accidental disconnection

[Technical Data Sheet >](#)

### Power Cord with angled Locking System C13



- Protects appliances that are vulnerable to vibration
- Connector cannot be accidentally pulled or vibrated out of the inlet
- Space availability/constraints
- Different angles for ease of access
- Space saving
- Release locking mechanism
- Prevents accidental disconnection

[Technical Data Sheet >](#)