

IEC inlet filters FN 321

Compact IEC inlet filter

SCHAFFNER
safety for electronic systems



- Rated currents up to 10A
- High attenuation performance
- Reduces interference susceptibility

Approvals

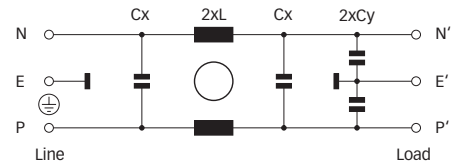


ROHS
2002/95/EC

Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	1 to 10A @ 50°C max.
High potential test voltage:	P → E 2000VAC for 2 sec P → N 760VAC 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, EN 60939
Flammability corresponding to:	UL 94V-2 or better
MTBF @ 40°C/230V (Mil-HB-217F):	800,000 hours

Typical electrical schematic



The FN 321 IEC inlet filter combines an IEC inlet and mains filter with excellent filter attenuation in a small form factor. Choosing the FN 321 compact power entry module 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 output connections helping you to select the desired solution for your application.



Features and benefits

- High conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear or front flange mounting.
- Faston or solder terminal connections.
- Rated currents up to 10A.
- 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
- EDP and office equipment
- Rack mounting equipment

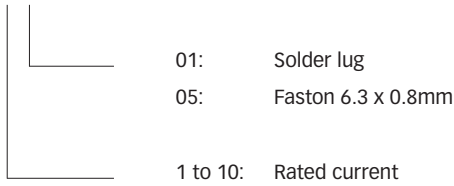
Filter selection table

Filter	Rated current @ 40°C (25°C)	Leakage current* @ 230VAC/50Hz	Inductance L	Capacitance		Resistance R	Output connections		Weight
	[A]	[μA]	[mH]	Cx [nF]	Cy [nF]	[kΩ]			[g]
FN 321-1-..	1 (1.2)	560	10	47	3.3		-01	-05	65
FN 321-3-..	3 (3.5)	560	3.1	47	3.3		-01	-05	65
FN 321-6-..	6 (7.2)	560	1.2	47	3.3		-01	-05	65
FN 321-10-..	10 (11.6)	560	0.36	47	3.3		-01	-05	65

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

Product selector

FN 321-yy-..

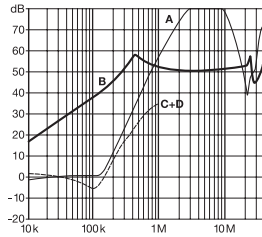


For example: FN 321-6-01, FN 321-10-05

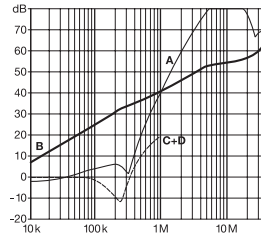
Typical filter attenuation

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

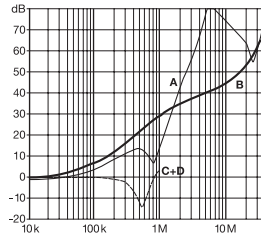
1A types



3 and 6A types

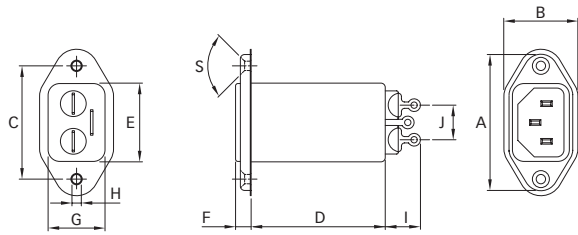


10A types

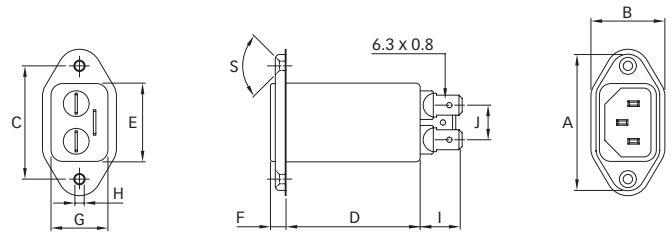


Mechanical data

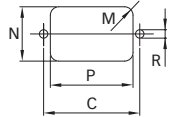
Connection style -01



Connection style -05



Panel cut out



Dimensions

	FN 321 Connection style -01	FN 321 Connection style -05	Tolerances
A	51.5	51.5	±0.5
B	26	26	±0.3
C	40	40	±0.2
D	46.6	46.6	±0.3
E	27.9	27.9	+0.5
F	5.5	5.5	±0.3
G	20.1	20.1	
H	Ø3.3	Ø3.3	
I	11.4	13.4	
J	10.9	10.9	±0.5
M	R ≤ 3	R ≤ 3	
N	21.5	21.5	±0.2
P	28.5	28.5	±0.2
R	M3	M3	
S	90°	90°	

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