

IEC Inlet Filters FN 370

Versatile Filtered Power Entry Module

SCHAFNER
energy efficiency and reliability



- Rated currents up to 6A
- Single or dual-fuse holder
- Fuses Ø6.3 x 32mm or Ø5 x 20mm
- Voltage selector 100/120/230/240V
- General purpose application
- Optional medical versions (B type)

Approvals



RoHS

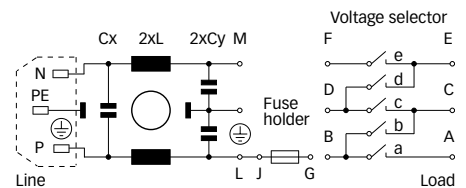
Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	2 to 6A @ 40°C max.
High potential test voltage:	P → PE 2000VAC for 2 sec (standard types) P → PE 2500VAC for 2 sec (B types)
	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, IEC/EN 60939
Flammability corresponding to:	UL 94V-2 or better
MTBF @ 40°C/230V (Mil-HB-217F):	550,000 hours
Voltage selector description:	VOL-SE 4SP-4
Function:	Series/parallel
Voltage marking*:	
1st:	100
2nd:	120
3rd:	230
4th:	240
Closed internal contact corresponding to:	
1st:	a, c, e
2nd:	b, c, e
3rd:	a, d
4th:	b, d

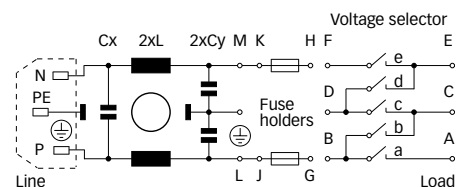
* Other selected voltage marking on request.

Typical electrical schematic

FN 370 / FN 376



FN 372 / FN 378 / FN 379



Features and benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear/front or snap-in mounting.
- Single or dual-fuse holder.
- USA Ø6.3 x 32mm or EU Ø5 x 20mm fuses.
- Two attenuation performance ranges.
- Voltage selector 100/120/230/240V.
- Custom-specific versions are available on request.

Typical applications

- Portable electrical and electronic equipment
- Consumer goods
- EDP and office equipment
- Single-phase power supplies, switch-mode power supplies
- Test and measurement equipment
- Medical equipment

The FN 370 power entry module combines an IEC inlet, a mains filter with a single or dual-fuse holder and a voltage selector. Choosing FN 370 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, fuse options, mounting possibilities and filters for medical applications are designed to offer you the desired solution.

Filter selection table

Filter*	Rated current @ 40°C (25°C)	Leakage current** @ 230VAC/50Hz	Inductance L	Capacitance		Resistance R	Output connections	Fuses***	Weight
	[A]	[μA]	[mH]	Cx [nF]	Cy [nF]	[kΩ]		[Qty]	[g]
FN 370-2-2.1	2 (2.4)	373	0.70	47	2.2		13	1	55
FN 370-4-2.1	4 (4.8)	373	0.30	47	2.2		13	1	55
FN 370-6-2.1	6 (7.2)	373	0.18	47	2.2		13	1	55
FN 372-2-2.2	2 (2.4)	373	0.70	47	2.2		13	2	55
FN 372-4-2.2	4 (4.8)	373	0.30	47	2.2		13	2	55
FN 372-6-2.2	6 (7.2)	373	0.18	47	2.2		13	2	55
FN 376-2-2.1	2 (2.4)	373	0.70	47	2.2		13	1	55
FN 376-4-2.1	4 (4.8)	373	0.30	47	2.2		13	1	55
FN 376-6-2.1	6 (7.2)	373	0.18	47	2.2		13	1	55
FN 378-2-2.2	2 (2.4)	373	0.70	47	2.2		13	2	60
FN 378-4-2.2	4 (4.8)	373	0.30	47	2.2		13	2	60
FN 378-6-2.2	6 (7.2)	373	0.18	47	2.2		13	2	60
FN 379-2-2.2	2 (2.4)	373	2.00	47	2.2		13	2	70
FN 379-4-2.2	4 (4.8)	373	0.80	47	2.2		13	2	70
FN 379-6-2.2	6 (7.2)	373	0.50	47	2.2		13	2	70
FN 379B-2-2.2	2 (2.4)	2	2.00	47		1000	13	2	70
FN 379B-4-2.2	4 (4.8)	2	0.80	47		1000	13	2	70
FN 379B-6-2.2	6 (7.2)	2	0.50	47		1000	13	2	70

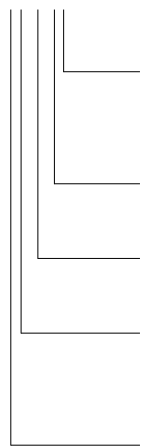
* Select the requested fuse holder for fuse EUR-1 or USA-1.

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

*** Filters are delivered without fuse.

Product selector

FN 37xx-y-zz

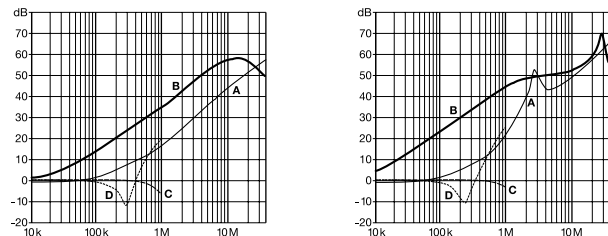
	1:	Fuse Ø5 x 20mm (FUSE-H EUR-1)
	2:	Fuse Ø6.3 x 32mm (FUSE-H USA-1)
	2:	Voltage selector, series / parallel 100/120/230/240V
	2 to 6:	Rated current
	Blank:	Standard version
	B:	Medical version (with bleed resistor and without Y2-capacitor)
	0:	Snap-in version, single-fuse, standard performance
	2:	Snap-in version, dual-fuse, standard performance
	6:	Flange mounting version, single-fuse, standard performance
	8:	Flange mounting version, dual-fuse, standard performance
	9:	Flange mounting version, dual-fuse, high performance

For example: FN 370-6-21, FN 378-4-22, FN 379B-2-22

Typical filter attenuation

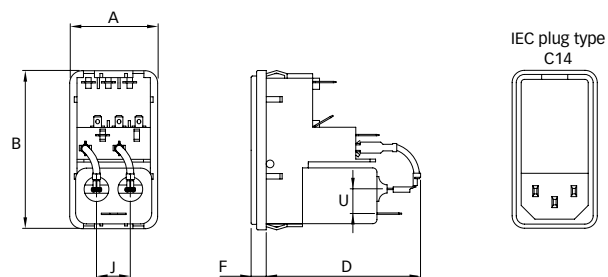
Per CISPR 17; A = 50Ω/50Ω sym; B = 50Ω/50Ω asym; C = 0.1Ω/100Ω sym; D = 100Ω/0.1Ω sym

FN 370 / FN 372 / FN 376 / FN 378 FN 379

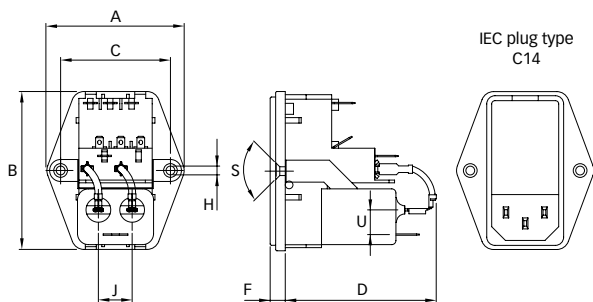


Mechanical data

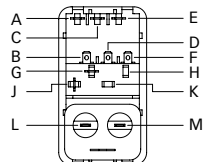
FN 370 / FN 372



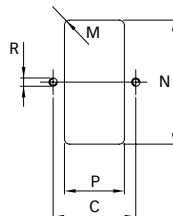
FN 376 / FN 378 / FN 379



Connection designation



Panel cut out



Dimensions

	FN 370	FN 372	FN 376	FN 378	FN 379	Tolerances
A	32	32	50	50	50	±0.3
B	58	58	58	58	58	±0.3
C			40	40	40	±0.1
D	54	54	54	54	64.5	
F	5.5	5.5	5.5	5.5	5.5	
H			Ø3.3	Ø3.3	Ø3.3	
J	12.5	12.5	12.5	12.5	12.5	
M	R ≤ 2	R ≤ 2	R ≤ 2	R ≤ 2	R ≤ 2	±0.1
N	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	+0.2/-0
P	28.5	28.5	28.5	28.5	28.5	+0.2/-0
R			M3	M3	M3	
S			90°	90°	90°	
U	9	9	9	9	9	

* For a back panel thickness between 0.8 and 2.0mm

** For a back panel thickness between 2.1 and 3.2mm

All dimensions in mm; 1 inch = 25.4mm

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

**Headquarters, global innovation
and development center**

Schaffner Group
Nordstrasse 11
4542 Luterbach
Schweiz
T +41 32 681 66 26
F +41 32 681 66 30
info@schaffner.com
www.schaffner.com

Sales and application centers

China
Schaffner EMC Ltd. Shanghai
T20-3, No 565 Chuangye Road
Pudong New Area
Shanghai 201201
T +86 21 3813 9500
F +86 21 3813 9501 / 02
cschina@schaffner.com
www.schaffner.com

Finland
Schaffner Oy
Sauvonrinne 19 H
08500 Lohja
T +358 19 35 72 71
F +358 19 32 66 10
finlandsales@schaffner.com

France
Schaffner EMC S.A.S.
112, Quai de Bezons
95103 Argenteuil
T +33 1 34 34 30 60
F +33 1 39 47 02 28
francesales@schaffner.com

Germany
Schaffner Deutschland GmbH
Schoemperlenstrasse 12B
76185 Karlsruhe
T +49 721 56910
F +49 721 569110
germanysales@schaffner.com

Italy
Schaffner EMC S.r.l.
Via Galileo Galilei, 47
20092 Cinisello Balsamo (MI)
T +39 02 66 04 30 45/47
F +39 02 61 23 943
italysales@schaffner.com

Japan
Schaffner EMC K.K.
Mitsui-Seimei Sangenjaya Bldg. 7F
1-32-12, Kamiuma, Setagaya-ku
Tokyo 154-0011
T +81 3 5712 3650
F +81 3 5712 3651
japansales@schaffner.com
www.schaffner.jp

Singapore
Schaffner EMC Pte Ltd.
Blk 3015A Ubi Road 1
05-09 Kampong Ubi Industrial Estate
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain
Schaffner EMC España
Calle Caléndula 93
Miniparc III, Edificio E
El Soto de la Moraleja
Alcobendas
28109 Madrid
T +34 618 176 133
spainsales@schaffner.com

Sweden
Schaffner EMC AB
Turebergstorg 1, 6
19147 Sollentuna
T +46 8 5792 1121 / 22
F +46 8 92 96 90
swedensales@schaffner.com

Switzerland
Schaffner EMV AG
Nordstrasse 11
4542 Luterbach
T +41 32 681 66 26
F +41 32 681 66 41
sales@schaffner.ch

Taiwan
Schaffner EMV Ltd.
6th Floor, No 413
Rui Guang Road
Neihu District
Taipei City 114
T +886 2 87525050
F +886 2 87518086
taiwansales@schaffner.com

Thailand
Schaffner EMC Co. Ltd.
Northern Region Industrial Estate
67 Moo 4 Tambon Ban Klang
Amphur Muang P.O. Box 14
Lamphun 51000
T +66 53 58 11 04
F +66 53 58 10 19
thailandsales@schaffner.com

UK
Schaffner Ltd.
5 Ashville Way
Molly Millars Lane
Wokingham
Berkshire RG41 2PL
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com
www.schaffner.uk.com

USA
Schaffner EMC Inc.
52 Mayfield Avenue
Edison, New Jersey 08837
T +1 732 225 9533
F +1 732 225 4789
usasales@schaffner.com
www.schaffner.com/us

To find your local partner within
Schaffner's global network, please go to
www.schaffner.com

© 2012 Schaffner Group
Specifications are subject to change
within notice. The latest version of the
data sheets can be obtained from the
website. 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.