

Versatile Filtered Power Entry Module



- | Rated currents up to 6 A
- | Single or dual-fuse holder
- | Fuses Ø 6.3 x 32 mm Ø 5 x 20 mm
- | 2-pole rocker switch
- | General purpose application
- | Optional medical versions (B type)



Performance indicators

Attenuation performance



Rated current [A]



Approvals



The FN 380 power entry module combines an IEC inlet, a mains filter with a single or dual fuse holder and a 2-pole rocker switch. Choosing FN 380 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.

Features and benefits

- | Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- | Front or snap-in mounting
- | Single or dual-fuse holder
- | USA Ø 6.3 x 32 mm or EU Ø 5 x 20 mm fuses
- | 2-pole rocker switch
- | Custom-specific versions are available on request

Technical specifications

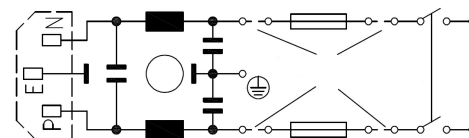
Maximum continuous operating voltage	250 VAC, 50/60 Hz
Operating frequency	50 to 400 Hz
Rated currents	2 to 6 A @ 40 °C max.
High potential test voltage	P → PE 2000 VAC for 2 sec (standard types) P → N 760 VAC for 2 sec P → PE 2500 VAC for 2 sec (B types)
Protection category	IP40 according to IEC 60529
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 94 V-2 or better
MTBF @ 40°C/230V (Mil-HB-217F)	550,000 hours
Function	2-pole, dark not illuminated Marking I - 0
Electrical specifications	Inrush current 51 A 6,000 on-off operations according to UL 1054, TV 5 10,000 on-off operations according to ENEC
Mechanical life	50,000 cycles
Switch ratings	
Europe (ENEC)	6 A (4 A), 250 VAC*
USA (UL)	6A, 125 VAC; 4 A, 250 VAC; 1/10 HP
Canada (CSA)	6 A, 125 VAC; 4 A, 250 VAC; 1/10 HP
Output connections	Blade terminals acc. DIN 46 244-A4.8-0.8 (do not connect by soldering)

* Value in () relates to the inductive current charge: $\cos \varphi = 0.65$


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

Typical electrical schematic



















Filter selection table

Filter*	Rated current @ 40 °C (25 °C)	Leakage current** @ 230 VAC/50 Hz	Inductance L	Capacitance		Resistance R	Output connections	Fuses***	Weight
	[A]	[µA]	[mH]	Cx [nF]	Cy [nF]	[kΩ]		[Qty]	[g]
FN 380-2-2.	2 (2.4)	373	0.70	47	2.2		13	1	55
FN 380-4-2.	4 (4.8)	373	0.30	47	2.2		13	1	55
FN 380-6-2.	6 (7.2)	373	0.18	47	2.2		13	1	55
FN 382-2-2.	2 (2.4)	373	0.70	47	2.2		13	2	55
FN 382-4-2.	4 (4.8)	373	0.30	47	2.2		13	2	55
FN 382-6-2.	6 (7.2)	373	0.18	47	2.2		13	2	55
FN 385-2-2.	2 (2.4)	373	2.00	47	2.2		13	2	65
FN 385-4-2.	4 (4.8)	373	0.80	47	2.2		13	2	65
FN 385-6-2.	6 (7.2)	373	0.50	47	2.2		13	2	65
FN 388-2-2.	2 (2.4)	373	0.70	47	2.2		13	2	60
FN 388-4-2.	4 (4.8)	373	0.30	47	2.2		13	2	60
FN 388-6-2.	6 (7.2)	373	0.18	47	2.2		13	2	60
FN 389-2-2.	2 (2.4)	373	2.00	47	2.2		13	2	70
FN 389-4-2.	4 (4.8)	373	0.80	47	2.2		13	2	70
FN 389-6-2.	6 (7.2)	373	0.50	47	2.2		13	2	70
FN 382B-2-2.	2 (2.4)	2	0.70	47		1000	13	2	55
FN 382B-4-2.	4 (4.8)	2	0.30	47		1000	13	2	55
FN 382B-6-2.	6 (7.2)	2	0.18	47		1000	13	2	55
FN 389B-2-2.	2 (2.4)	2	2.00	47		1000	13	2	70
FN 389B-4-2.	4 (4.8)	2	0.80	47		1000	13	2	70
FN 389B-6-2.	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 38xx-y-zz	
	1: Fuse Ø5 x 20mm (FUSE-H EUR-1)
	2: Fuse Ø6.3 x 32mm (FUSE-H USA-1)
	2: Rocker switch, 2-pole, dark not illuminated
	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
	 5: Snap-in version, dual-fuse, high performance
	 8: Flange mounting version, dual-fuse, standard performance
	 9: Flange mounting version, dual-fuse, high performance

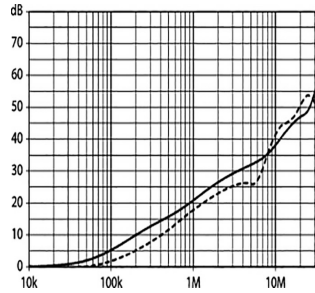
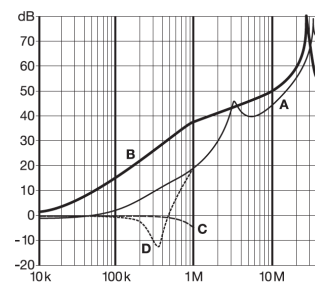
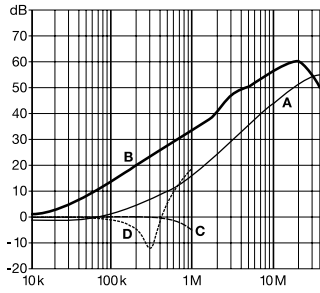
Typical filter attenuation

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

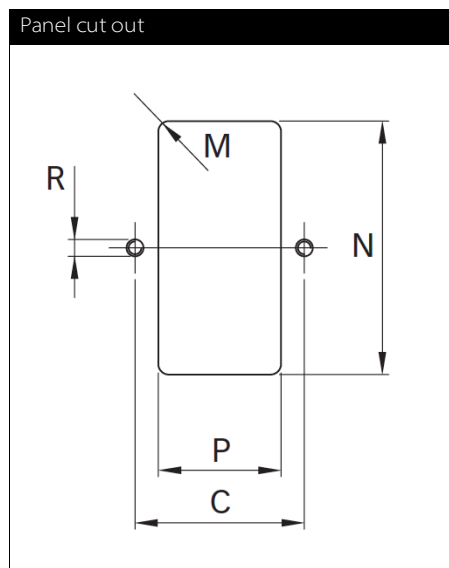
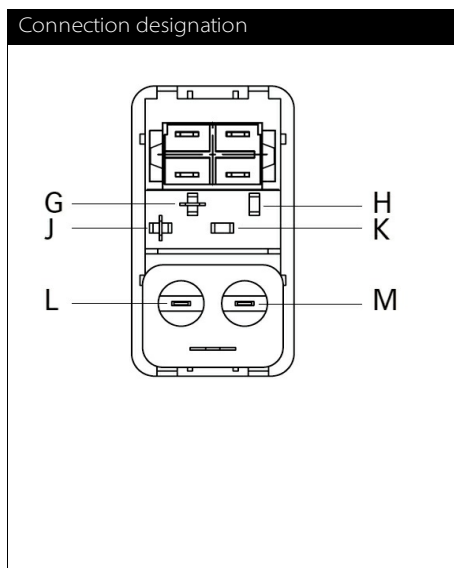
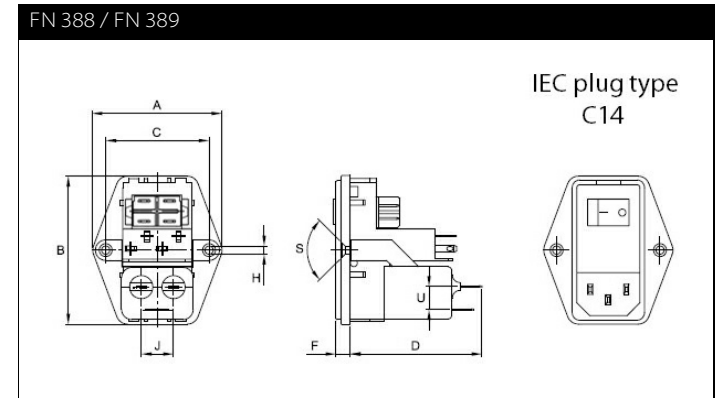
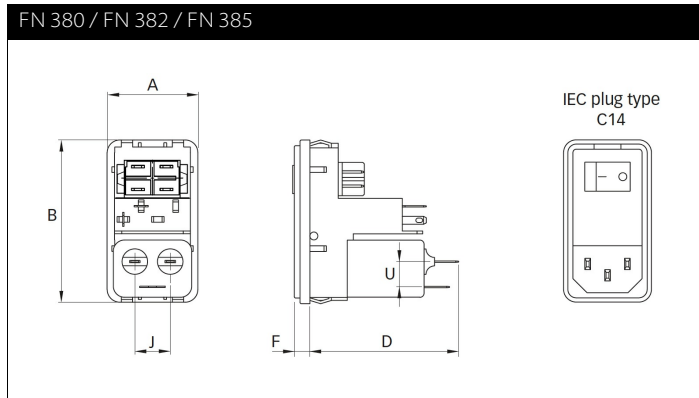
FN 380 / FN 382 / FN 388

FN 385 / FN 389

6A type only



Mechanical data



Dimensions

	FN 380	FN 382	FN 385	FN 388	FN 389	Tolerances
A	32	32	32	50	50	±0.3
B	58	58	58	58	58	±0.3
C				40	40	±0.1
D	51	51	61	51	61	
F	5.5	5.5	5.5	5.5	5.5	
H				Ø 3.3	Ø 3.3	
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	
S				90°	90°	
U	9	9	9	9	9	

* For a back panel thickness between 0.8 and 2.0 mm

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

All dimensions in mm; 1 inch = 25.4 mm

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

Please visit www.schaffner.com to find more details on filter connectors.



Headquarters, global innovation and development center

Switzerland

Schaffner Group

Nordstrasse 11
4542 Luterbach
T +41 32 6816 626
F +41 32 6816 630
info@schaffner.com
<http://www.schaffner.com>



Sales and application centers

China

Schaffner EMC Ltd. Shanghai

T20-3, No 565 Chuangye Road
Pudong New Area
201201 Shanghai
T +86 21 3813 9500
F +86 21 3813 9501 / 02
cschina@schaffner.com
<http://www.schaffner.com.cn/>

Finland

Schaffner Oy

Sauvonrinne 19 H
08500 Lohja
T +358 19 35 72 71
finlandsales@schaffner.com

France

Schaffner EMC S.A.S.

112 Quai de Bezons
Boîte postale 133
95100 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.

1-32-12, Kamiyama, Setagaya-ku
7F Mitsui-seimei Sangenjaya Bldg.
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@schaffner.com
<http://www.schaffner.jp>

Singapore

Schaffner EMC Pte Ltd.

Blk 3015A Ubi Road 1
05-09 Kampong Ubi Industrial Estate
408705 Singapore
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain

Schaffner EMC España

Calle Caléndula 93, Miniparc III, Edificio E,
Alcobendas
Miniparc III, Edificio E
El Soto de la Moraleja
Alcobendas
28109 Madrid
M +34 618 176 133
T +34 917 912 900
F +34 917 912 901
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
switzerlandsales@schaffner.com

Taiwan R.O.C.

Schaffner EMV Ltd.

6 Floor, No. 413
114 Neihu District Taipei City
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 Muangng P.O. Box 14
51000 Lamphun
T +66 53 58 11 04
F +66 53 58 10 19
thailandsales@schaffner.com

UK

Schaffner Ltd.

Wokingham
RG41 2PL Berkshire
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com
<http://www.schaffner.uk.com>

USA

Schaffner EMC Inc.

52 Mayfield Avenue
08837 Edison, New Jersey
T +1 800 367 5566
T +1 732 225 9533
F +1 732 225 4789
usasales@schaffner.com
<http://www.schaffner.com/us>

Schaffner MTC LLC

6722 Thirlane Road
24019 Roanoke, Virginia
T +1 276 228 7943
F +1 276 228 7953
<http://www.schaffner-mtc.com>

Schaffner Trencos LLC

2550 Brookpark Road
44134 Cleveland, Ohio
T +1 216 741 5282
F +1 216 741 4860
<http://schaffner-trencos.com>

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