

Versatile Filtered Power Entry Module



Rated currents up to 6 A
Single or dual-fuse holder
Fuses Ø6.3 x 32 mm Ø5 x 20 mm
2-pole rocker switch
General purpose application
Optional medical versions (B type)



Performance indicators

Attenuation performance



Approvals & Compliances



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 Ø6.3 x 32 mm or EU Ø5 x 20 mm fuses

2-pole rocker switch

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

Technical specifications

Maximum continuous operating voltage

250 VAC, 50/60 Hz

Operating frequency

DC to 400 Hz
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 → PE 2500 VAC for 2 sec (B types)
P → N 760 VAC for 2 sec

Protection category

IP 40 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/230 V (Mil-HB-217F)

550,000 hours

Function

2-pole, dark not illuminated
Marking I - 0

Electrical specifications

Inrush current 51 A
10,000 on-off operations according to ENEC
6,000 on-off operations according to UL 1054, TV 5
50,000 cycles

Mechanical life

Switch ratings

Europe (ENEC)

6 A (4 A), 250 VAC*

USA (UL)

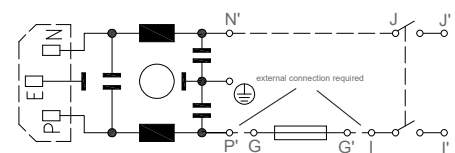
6 A, 125 VAC; 4 A, 250 VAC; 1/10 HP

Canada (CSA)

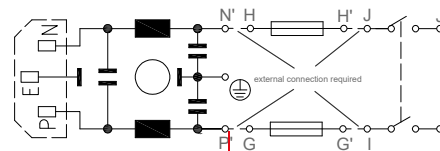
6 A, 125 VAC; 4 A, 250 VAC; 1/10 HP

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

Typical electrical schematic (single fuse)



Typical electrical schematic (dual fuse)



Filter selection table

Filter*	Rated current @ 40°C (25°C) [A]	Leakage current** @ 230 VAC/50 Hz [μA]	Inductance*** L [mH]		Capacitance*** Cx [nF] Cy [nF]		Resistance*** R [kΩ]	Fuses**** [Qty]	Weight [g]
FN 380-2-2 z	2 (2.4)	373	0.70	47	2.2		1	55	
FN 380-4-2 z	4 (4.8)	373	0.30	47	2.2		1	55	
FN 380-6-2 z	6 (7.2)	373	0.18	47	2.2		1	55	
FN 382-2-2 z	2 (2.4)	373	0.70	47	2.2		2	55	
FN 382-4-2 z	4 (4.8)	373	0.30	47	2.2		2	55	
FN 382-6-2 z	6 (7.2)	373	0.18	47	2.2		2	55	
FN 388-2-2 z	2 (2.4)	373	0.70	47	2.2		2	60	
FN 388-4-2 z	4 (4.8)	373	0.30	47	2.2		2	60	
FN 388-6-2 z	6 (7.2)	373	0.18	47	2.2		2	60	
FN 389-2-2 z	2 (2.4)	373	2.00	47	2.2		2	70	
FN 389-4-2 z	4 (4.8)	373	0.80	47	2.2		2	70	
FN 389-6-2 z	6 (7.2)	373	0.50	47	2.2		2	70	
FN 382 B-2-2 z	2 (2.4)	2	0.70	47		1000	2	55	
FN 382 B-4-2 z	4 (4.8)	2	0.30	47		1000	2	55	
FN 382 B-6-2 z	6 (7.2)	2	0.18	47		1000	2	55	
FN 385 B-2-2 z	2 (2.4)	2	2.00	47		1000	2	65	
FN 385 B-4-2 z	4 (4.8)	2	0.80	47		1000	2	65	
FN 385 B-6-2 z	6 (7.2)	2	0.50	47		1000	2	65	
FN 389 B-2-2 z	2 (2.4)	2	2.00	47		1000	2	70	
FN 389 B-4-2 z	4 (4.8)	2	0.80	47		1000	2	70	
FN 389 B-6-2 z	6 (7.2)	2	0.50	47		1000	2	70	

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

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

*** Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%

**** 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

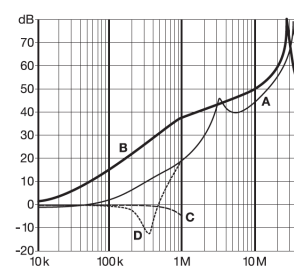
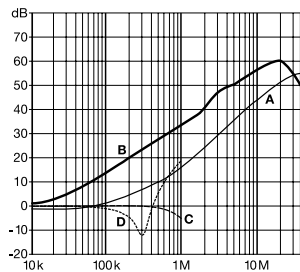
FN 380 / FN 382 / FN 385

Typical filter attenuation

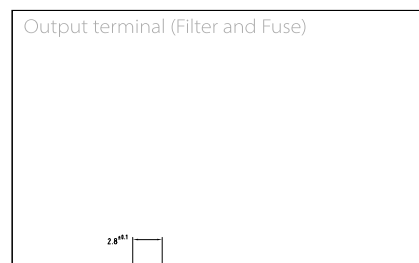
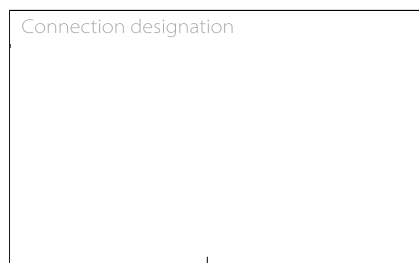
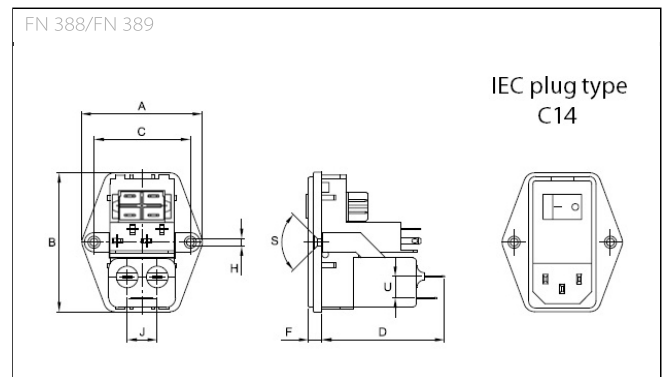
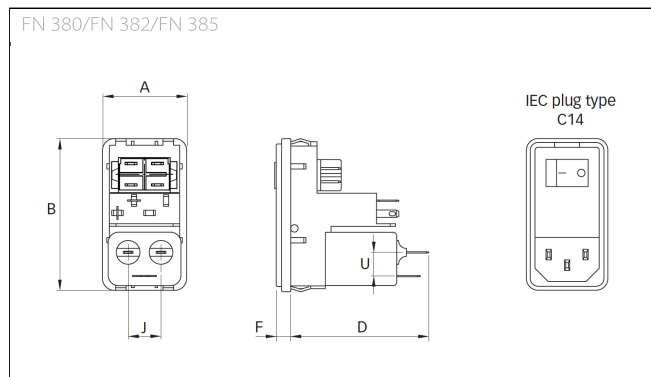
Per CISPR 17; A=50 Ω/50 Ω sym; B=50 Ω/50 Ω asym; C=0.1 Ω/100 Ω sym; D=100 Ω/0.1 Ω sym

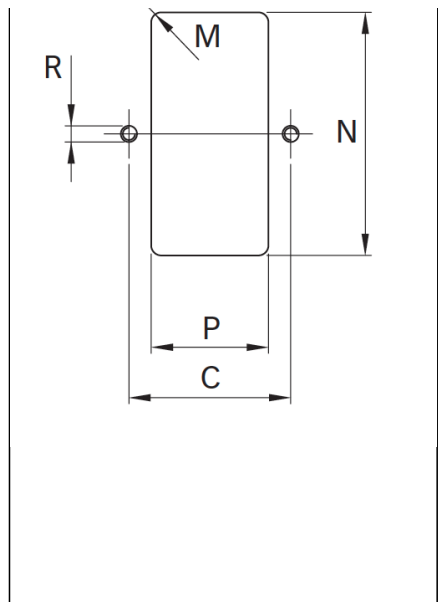
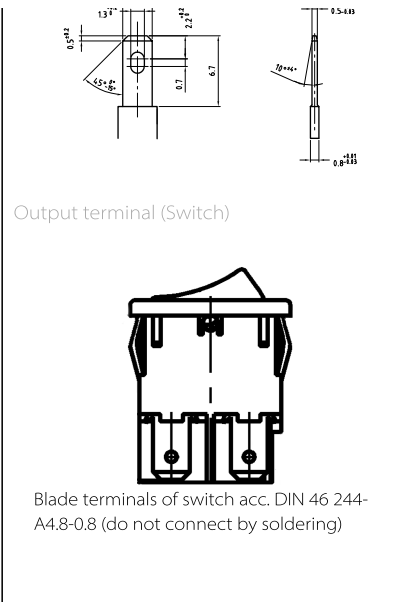
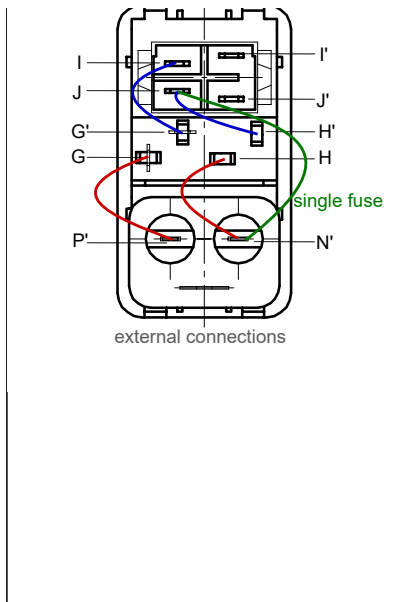
FN 380/FN 382/FN 388

FN 385/FN 389



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				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	
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.



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