

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



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
Rocker switch description	
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

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

Approvals



The FN 380 power entry module combines an IEC inlet, a mains filter with asingle or dualfuse 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
- Rear/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

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

Filter selection table

Filter*	Rated current @ 40 °C (25 °C)	Leakage current** @ 230 VAC/50 Hz	Inductance L	Capacitance Cx	Cy	Resistance R	Output connections	Fuses***	Weight
	[A]	[µA]	[mH]	[nF]	[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.

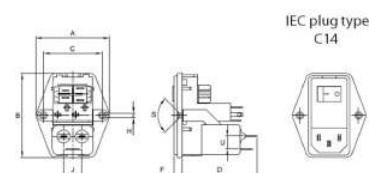
*** Filters are delivered without fuse.

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

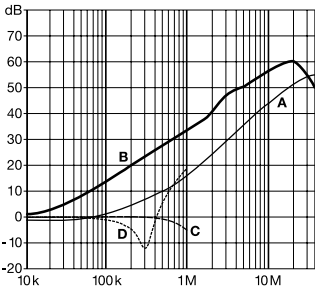
Typical electrical schematic



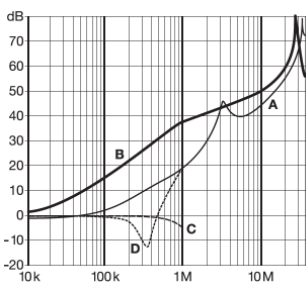
Typical filter attenuation

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

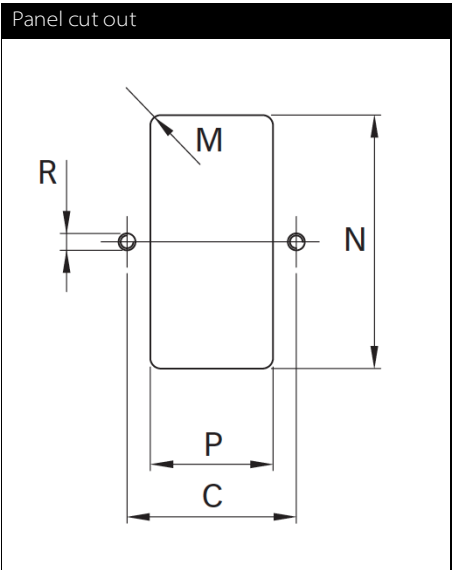
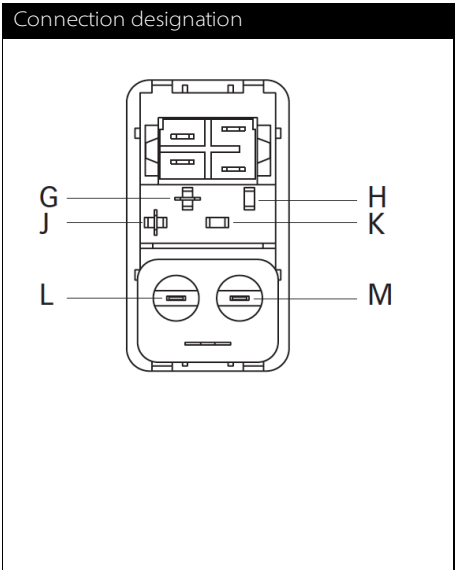
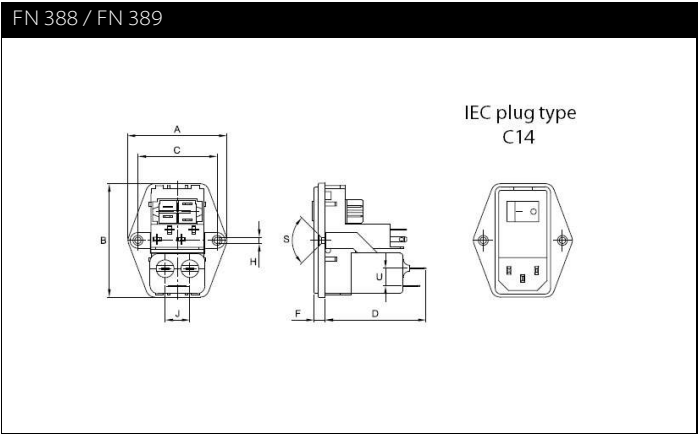
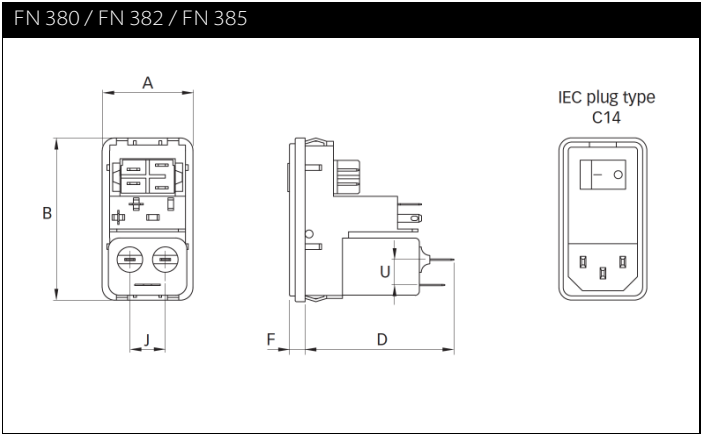
FN 380 / FN 382 / FN 388



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				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.



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