

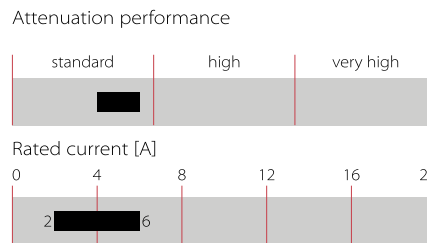
# Versatile Filtered Power Entry Module



- 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



## 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 Ø6.3 x 32 mm or EU Ø5 x 20 mm fuses
- 2-pole rocker switch
- Custom-specific versions are available on request

## Technical specifications

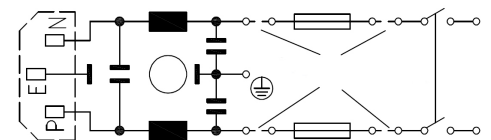
<b>Maximum continuous operating voltage</b>	250 VAC, 50/60 Hz
<b>Rated currents</b>	2 to 6 A @ 40°C max.
<b>High potential test voltage</b>	P → PE 2000 VAC for 2 sec (standard types) P → PE 2500 VAC for 2 sec (B types) P → N 760 VAC for 2 sec
<b>Protection category</b>	IP 40 according to IEC 60529
<b>Temperature range (operation and storage)</b>	-25°C to +85°C (25/85/21)
<b>Design corresponding to</b>	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
<b>Flammability corresponding to</b>	UL 94 V-2 or better
<b>MTBF @ 40°C/230 V (Mil-HB-217F)</b>	550,000 hours
<b>Function</b>	2-pole, dark not illuminated Marking I - 0
<b>Electrical specifications</b>	Inrush current 51 A 10,000 on-off operations according to ENEC 6,000 on-off operations according to UL 1054, TV 5
<b>Mechanical life</b>	50,000 cycles
<b>Switch ratings</b>	
<b>Europe (ENEC)</b>	6 A (4 A), 250 VAC*
<b>USA (UL)</b>	6 A, 125 VAC; 4 A, 250 VAC; 1/10 HP
<b>Canada (CSA)</b>	6 A, 125 VAC; 4 A, 250 VAC; 1/10 HP
<b>Output connections</b>	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 Cx	Cy	Resistance R	Output connections	Fuses***	Weight
	[A]	[µA]	[mH]	[nF]	[nF]	[kΩ]		[Qty]	[g]
<b>FN 380-2-2.</b>	2 (2.4)	373	0.70	47	2.2		13	1	55
<b>FN 380-4-2.</b>	4 (4.8)	373	0.30	47	2.2		13	1	55
<b>FN 380-6-2.</b>	6 (7.2)	373	0.18	47	2.2		13	1	55
<b>FN 382-2-2.</b>	2 (2.4)	373	0.70	47	2.2		13	2	55
<b>FN 382-4-2.</b>	4 (4.8)	373	0.30	47	2.2		13	2	55
<b>FN 382-6-2.</b>	6 (7.2)	373	0.18	47	2.2		13	2	55
<b>FN 385-2-2.</b>	2 (2.4)	373	2.00	47	2.2		13	2	65
<b>FN 385-4-2.</b>	4 (4.8)	373	0.80	47	2.2		13	2	65
<b>FN 385-6-2.</b>	6 (7.2)	373	0.50	47	2.2		13	2	65
<b>FN 388-2-2.</b>	2 (2.4)	373	0.70	47	2.2		13	2	60
<b>FN 388-4-2.</b>	4 (4.8)	373	0.30	47	2.2		13	2	60
<b>FN 388-6-2.</b>	6 (7.2)	373	0.18	47	2.2		13	2	60
<b>FN 389-2-2.</b>	2 (2.4)	373	2.00	47	2.2		13	2	70
<b>FN 389-4-2.</b>	4 (4.8)	373	0.80	47	2.2		13	2	70
<b>FN 389-6-2.</b>	6 (7.2)	373	0.50	47	2.2		13	2	70
<b>FN 382 B-2-2.</b>	2 (2.4)	2	0.70	47		1000	13	2	55
<b>FN 382 B-4-2.</b>	4 (4.8)	2	0.30	47		1000	13	2	55
<b>FN 382 B-6-2.</b>	6 (7.2)	2	0.18	47		1000	13	2	55
<b>FN 389 B-2-2.</b>	2 (2.4)	2	2.00	47		1000	13	2	70
<b>FN 389 B-4-2.</b>	4 (4.8)	2	0.80	47		1000	13	2	70
<b>FN 389 B-6-2.</b>	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.

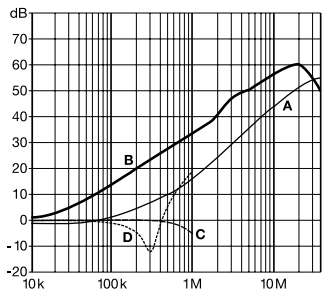
\*\*\* Filters are delivered without fuse.

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

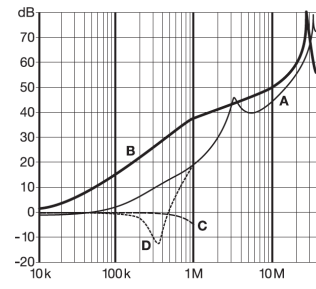
### Typical filter attenuation

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

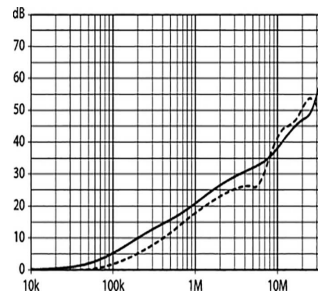
FN 380/FN 382/FN 388



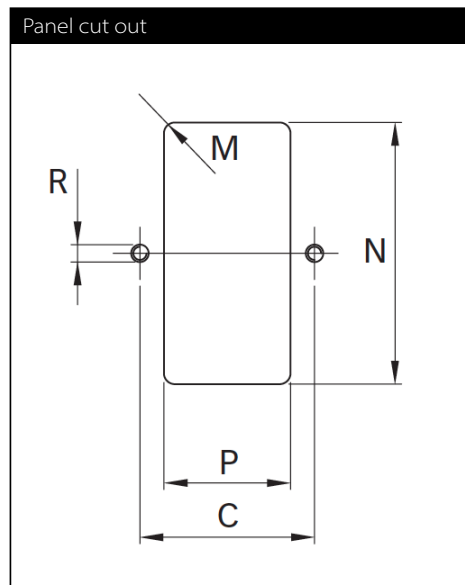
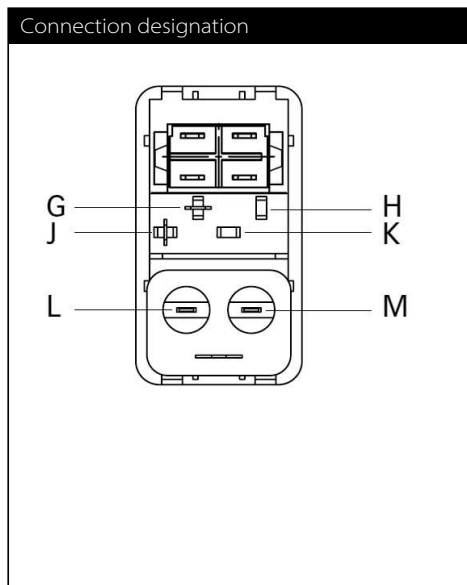
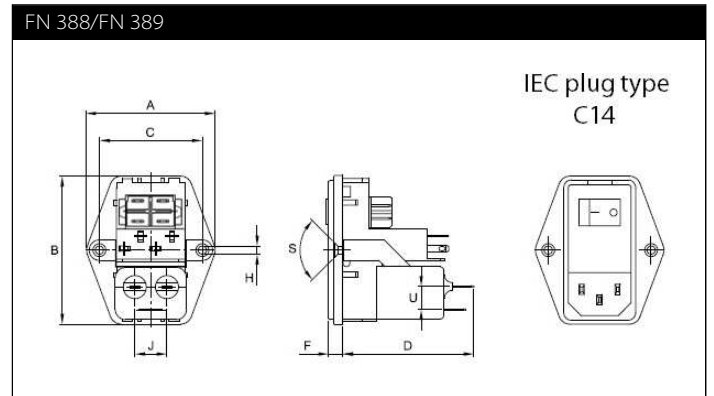
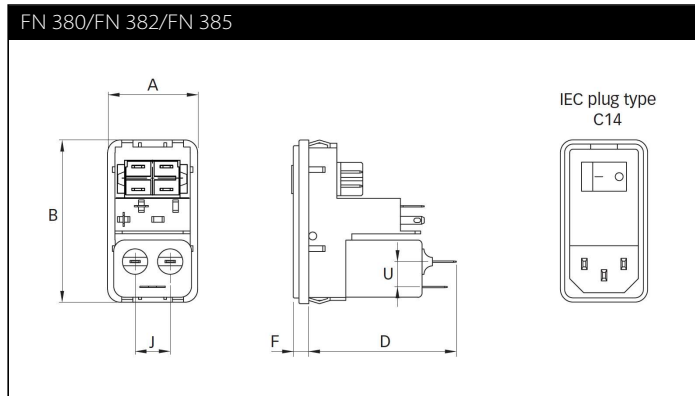
FN 385/FN 389



6A type only



### Mechanical data



## Dimensions

	<b>FN 380</b>	<b>FN 382</b>	<b>FN 385</b>	<b>FN 388</b>	<b>FN 389</b>	<b>Tolerances</b>
<b>A</b>	32	32	32	50	50	±0.3
<b>B</b>	58	58	58	58	58	±0.3
<b>C</b>				40	40	±0.1
<b>D</b>	51	51	61	51	61	
<b>F</b>	5.5	5.5	5.5	5.5	5.5	
<b>H</b>				Ø3.3	Ø3.3	
<b>J</b>	12.5	12.5	12.5	12.5	12.5	
<b>M</b>	R ≤2	R ≤2	R ≤2	R ≤2	R ≤2	±0.1
<b>N</b>	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	55.9*/56.2**	+0.2/-0
<b>P</b>	28.5	28.5	28.5	28.5	28.5	+0.2/-0
<b>R</b>				M3	M3	
<b>S</b>				90°	90°	
<b>U</b>	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](http://www.schaffner.com) to find more details on filter connectors.



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