

Ultra Compact EMC Filter

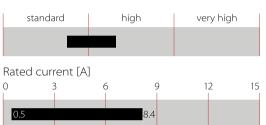


- Rated currents from 0.5 to 8.4 A
- Aluminium case
- Very compact PCB-mountable design
- Low profile
- Optional medical versions (B type)



Performance indicators

Attenuation performance



Technical Specifications

Maximum continuous operating voltage	
Nominal operating voltage	
Rated currents	
Operating frequency	
High potential test voltage	
Temperature range (operation and storage)	
Flammability corresponding to	

Design corresponding to MTBF (Mil-HB-217F)

250 VAC, 50/60 Hz 230 VAC 0.5 to 8.4 A @ 40°C DC to 400 Hz P -> PE 2000 VAC for 2 sec (standard types) P -> PE 2500 VAC for 2 sec (B types) $P \rightarrow N$ 760 VAC for 2 sec -25°C to +100°C (25/100/21) UL 94 V-0 UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 >1,900,000 h @ 40°C/230 V

Approvals & Compliances



The FN 406 PCB filter is a single-phase filter designed for easy, fast and compact PCBmounting. Choosing the FN 406 product line brings you the rapid availability of a standard filter associated with the necessary safety acceptance. Standard PCB single-phase filters are a practical solution helping you to pass EMI system approval in a short time. A selection on amperage ratings and medical types are designed to offer you the desired standard product.

Features and Benefits

- Good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- PCB through hole mounting.
- Low profile.

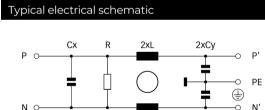
N O

Line

Custom specific versions on request.

Typical Applications

- Electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch-mode power
- supplies Test and measurement equipment
- Medical equipment



-0

Load

Filter Selection Table

Filter	Rated current	Leakage current*	Inductance**	Capacitance**		Resistance**	Input/Output	Weight
	@ 40 °C (25 °C)	@ 230 VAC/50 Hz	L	Сх	Су	R	connections	
							I	
	[A]	[μA]	[mH]	[nF]	[nF]	[kΩ]	T	[g]
FN 406-0.5-02	0.5 (0.6)	373	24	100	2.2	1000	-02	36
FN 406-1-02	1 (1.2)	373	12	100	2.2	1000	-02	36
FN 406-3-02	3 (3.6)	373	2.5	100	2.2	1000	-02	36
FN 406-6-02	6 (6.9)	373	0.78	100	2.2	1000	-02	36
FN 406-8.4-02	8.4 (9.6)	373	0.3	100	2.2	1000	-02	36
FN 406 B-0.5-02	0.5 (0.6)	2	24	100		1000	-02	36
FN 406 B-1-02	1 (1.2)	2	12	100		1000	-02	36
FN 406 B-3-02	3 (3.6)	2	2.5	100		1000	-02	36
FN 406 B-6-02	6 (6.9)	2	0.78	100		1000	-02	36
FN 406 B-8.4-02	8.4 (9.6)	2	0.3	100		1000	-02	36

* 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%

Product s FN 406X		
	02:	PCB through hole mounting
	0.5 to 8.4:	Rated current
	 Blank: B:	Standard version Medical version (without Y2-capacitor)

For example: FN 406-0.5-02, FN 406 B-8.4-02

Typical Filter Attenuation

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

0.5 to 3 A types

dB

70

60

50

40

30

20

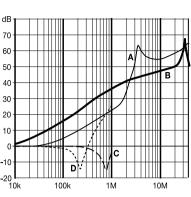
10

0

-10

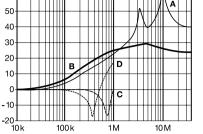
-20 – 10k

6 A types

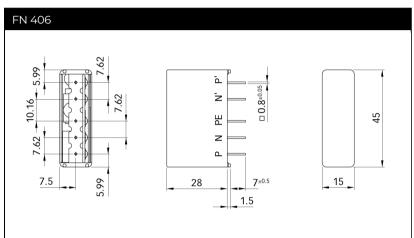


dB 70 60 50

8.4 A types



Mechanical Data



All dimensions in mm; 1 inch = 25.4 mm Tolerances according: ISO 2768-m/EN 22768-m

Please visit <u>www.schaffner.com</u> to find more details on filter connectors.

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