

High Performance Two-stage PCB-mounting EMC Filter



- Rated currents from 0.5 to 6 A
- High attenuation two-stage design
- PCB-mountable design

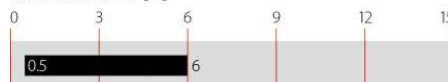


Performance indicators

Attenuation performance



Rated current [A]



Approvals



The FN 410 PCB filter is a single-phase, two-stage filter designed for easy and fast PCB-mounting. Choosing the FN 410 product line brings you the rapid availability of a standard high performance 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 are designed to offer you the desired standard product.

Features and benefits

- Very good conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- Two-stage single-phase design
- PCB through hole mounting
- Custom specific versions on request

Technical specifications

Maximum continuous operating voltage	250 VAC, 50/60 Hz
Operating frequency	dc to 400 Hz
Rated currents	0.5 to 6 A @ 40 °C max.
High potential test voltage	P → PE 2000 VAC for 2 sec P → N 760 VAC for 2 sec
Temperature range (operation and storage)	-25 °C to +100 °C (25/100/21)
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)	675,000 hours

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

Filter selection table

Filter*	Rated current @ 40 °C (25 °C)	Leakage current* @ 230 VAC/50 Hz	Inductance		Capacitance		Resistance R	Input/Output connections	Weight
			L1	L2	Cx	Cy			
	[A]	[mA]	[mH]	[mH]	[nF]	[nF]	[kΩ]		[g]
FN 410-0.5-02	0.5 (0.6)	373	24	24	33	2.2		-02	85
FN 410-1-02	1 (1.2)	373	10	10	33	2.2		-02	85
FN 410-3-02	3 (3.6)	373	2	2	33	2.2		-02	85
FN 410-6-02	6 (6.9)	373	0.8	0.8	33	2.2		-02	85

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

Product selector

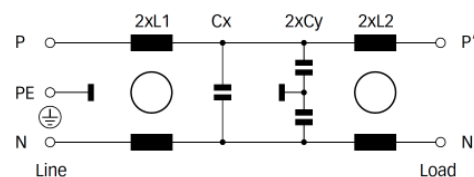
FN 410-yy-..

02: PCB through hole mounting

0.5 to 6: Rated current

For example: FN 410-0.5-02, FN 410-6-02

Typical electrical schematic

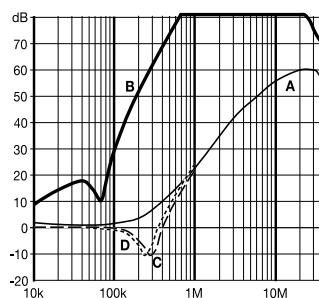
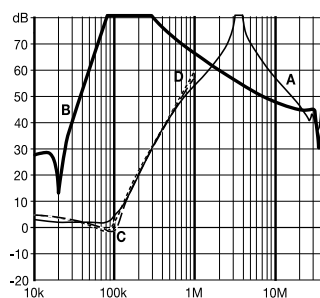


Typical filter attenuation

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

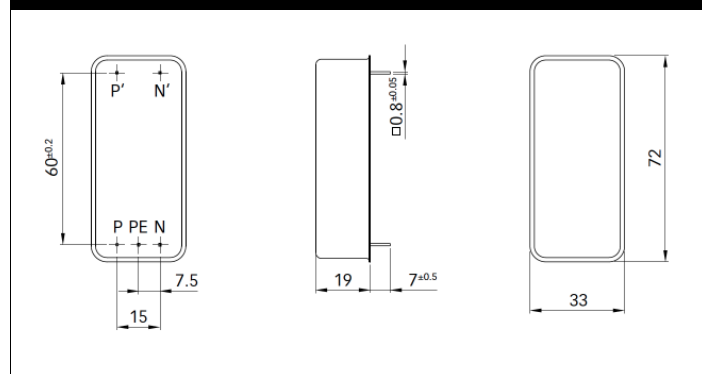
0.5 and 1 A types

3 and 6 A types



Mechanical data

Mechanical data



All dimensions in mm; 1 inch = 25.4 mm

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

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



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