

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

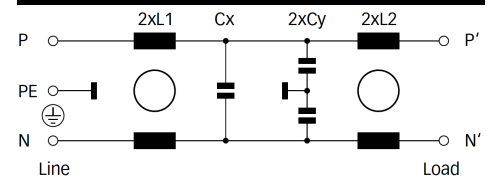
Technical specifications

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/230 V (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

Typical electrical schematic



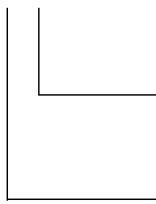
Filter selection table

Filter*	Rated current @ 40°C (25°C) [A]	Leakage current* @ 230 VAC/50 Hz [μA]	Inductance**		Capacitance**		Resistance** R [kΩ]	Input/Output connections	Weight [g]
			L1 [mH]	L2 [mH]	Cx [nF]	Cy [nF]			
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.
 ** Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%

Product selector

FN 410-yy-..



02: PCB through hole mounting

0.5 to 6: Rated current

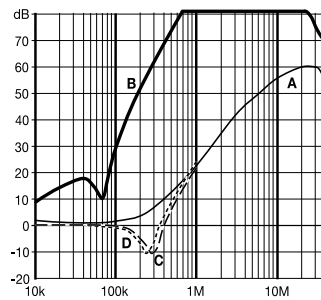
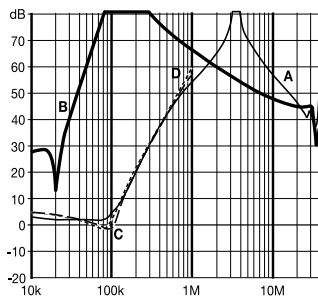
For example: FN 410-0.5-02, FN 410-6-02

Typical filter attenuation

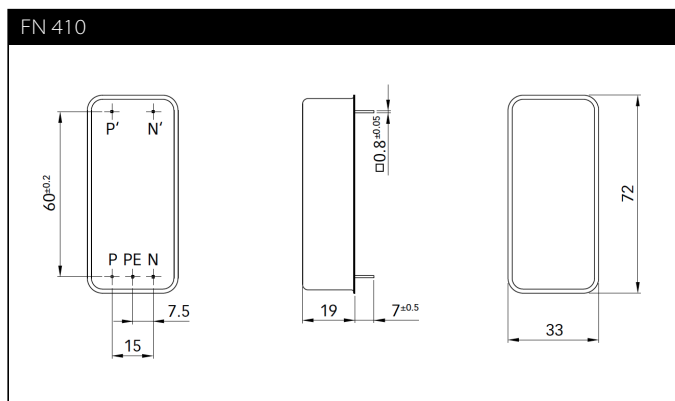
Per CISPR 17; A=50 Ω/50 Ω sym; B=50 Ω/50 Ω asym; C=0.1 Ω/100 Ω sym; D=100 Ω/0.1 Ω sym

0.5 and 1 A types

3 and 6 A types



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.



Headquarters, global innovation and development

Switzerland

Schaffner Group

Industrie Nord
Nordstrasse 11e
4542 Luterbach
T +41 32 681 66 26
info@schaffner.com



Sales and application centers

China

Schaffner EMC Ltd. Shanghai
T20-3 C, No 565 Chuangye Road,
Pudong district
201201 Shanghai
T +86 21 3813 9500
cschina@schaffner.com
www.schaffner.com.cn

Finland

Schaffner Oy
Sauvonrinne 19 H
08500 Lohja
T +358 10 567 2855
finlandsales@schaffner.com

France

Schaffner EMC S.A.S.
16-20 Rue Louis Rameau
95875 Bezons
T +33 1 34 34 30 60
F +33 1 39 47 02 28
francesales@schaffner.com

Germany

Schaffner Deutschland GmbH
Schoemperlenstrasse 12B
76185 Karlsruhe
T +49 721 56910
F +49 721 569110
germanysales@schaffner.com

India

Schaffner India Pvt. Ltd
REGUS WORLD TRADE CENTRE
WTC, 22nd Floor Unit No 2238, Brigade
Gateway Campus, 26/1, Dr. Rajkumar Road
Malleshwaram (W)
560055 Bangalore
T +91 80 67935355
indiasales@schaffner.com

Italy

Schaffner EMC S.r.l.
Via Ticino, 30
20900 Monza (MB)
T +39 039 21 41 070
italysales@schaffner.com

Japan

Schaffner EMC K.K.
Taiju-Seimei Sangenjaya Bldg.
1-32-12, Kamiuma, Setagaya-ku
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@schaffner.com
www.schaffner.jp

Singapore

Schaffner EMC Pte Ltd.
#05-09, Kg Ubi Ind. Estate
408705 Singapore
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain

Schaffner EMC España
Calle Caléndula 93, Miniparc III, Edificio E
El Soto de Moraleja, Alcobendas
28109 Madrid
T +34 917 912 900
F +34 917 912 901
spainsales@schaffner.com

Sweden

Schaffner EMC AB
Östermalmstorg 1
114 42 Stockholm
T +46 8 5050 2425
swedensales@schaffner.com
www.schaffner.com

Switzerland

Schaffner EMV AG
Industrie Nord
Nordstrasse 11e
4542 Luterbach
T +41 32 681 66 26
switzerlandsales@schaffner.com

Taiwan R.O.C.

Schaffner EMV Ltd.
20 Floor-2, No 97, Section 1, XinTai 5th Road
22175 XiZhi District New Taipei City 22175
T +886 2 2697 5500
F +886 2 2697 5533
taiwansales@schaffner.com
www.schaffner.com.tw

Thailand

Schaffner EMC Co. Ltd.
Northern Region Industrial Estate
67 Moo 4 Tambon Ban Klang
Amphur Muangng P.O. Box 14
51000 Lamphun
T +66 53 58 11 04
F +66 53 58 10 19
thailandsales@schaffner.com

United Kingdom

Schaffner Ltd.
5 Ashville Way, Molly Millars Lane
Wokingham
RG41 2PL Berkshire
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com

USA

Schaffner EMC Inc.
52 Mayfield Avenue
Edison, New Jersey
T +1 732 225 9533
F +1 732 225 4789
usasales@schaffner.com
www.schaffnerusa.com

Schaffner North America

6722 Thirlane Road
24019 Roanoke, Virginia
T +1 276 228 7943
F +1 276 228 7953

Schaffner North America

823 Fairview Road
24382 Wytheville, Virginia
T +1 276 228 7943
F +1 276 228 7258

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