

Ultra-compact low leakage current 3-phase and neutral line EMC/EMI filter 3-Phase + Neutral Line Filters FN 355



- | Ultra-compact four-wire filter for applications lacking space
- | Exceptional low operating leakage current
- | Equally suitable for star and delta power networks



Performance indicators



Approvals



Features and benefits

- | The FN 355 family of three-phase and neutral line filters provides a cost-effective interference suppression solution for a wide variety of applications.
- | Available in four versions, with current ratings from 3 to 20A, the filters employ a single-stage four-wire LC circuit with saturating resistant chokes, and have a very low operational leakage current.
- | FN 355 filters are contained within an extremely compact metal housing, making them ideal for use in situations where space is at a premium.



Typical applications

- | Office equipment
- | Medical equipment
- | General purpose four-wire filtering
- | Applications with tight space conditions

Technical specifications

Maximum continuous operating voltage	3x 440/250VAC
Operating frequency	dc to 400Hz
Rated currents	3 to 20A @ 40°C
High potential test voltage	P -> E 2000VAC for 2 sec P -> P 1900VDC for 2 sec
Overload capability	4x rated current at switch on, 1.5x rated current for 1 minute, once per hour
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)
Flammability corresponding to	UL 94V-2 or better
Design corresponding to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
MTBF @ 40°C/230V (Mil-HB-217F)	850,000 hours

Filter selection table

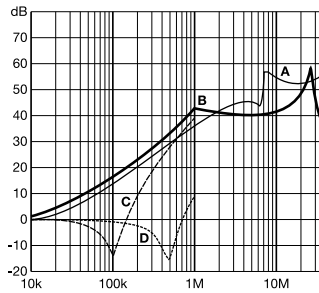
Filter	Rated current @ 40°C (25°C)	Leakage current* @ 400VAC/50Hz	Power loss @ 25°C/50Hz	Input/Output connections		Weight
	[A]	[mA]	[W]			[kg]
FN 355-3-0	3 (3.4)	0.07	1.4		-05	0.25
FN 355-6-0	6 (6.9)	0.07	1.5		-05	0.25
FN 355-10-0	10 (11.5)	0.07	1.8		-05	0.25
FN 355-20-0	20 (23)	0.29	3.4	-03		0.29

* Maximum leakage under normal operating conditions, based on the assumption that all three phases and the neutral conductor are connected to the supply and the consumer. In this case, the current will mainly return through the neutral line, not as earth leakage.

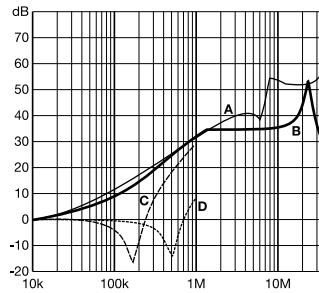
Typical filter attenuation

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

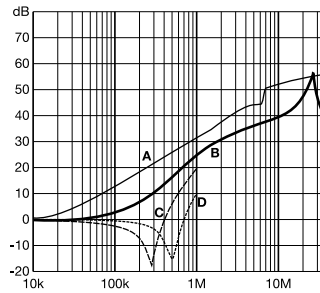
3A types



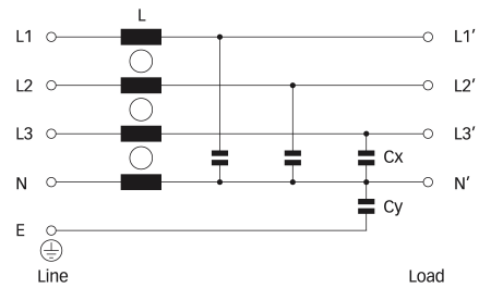
6A types



10 and 20A types

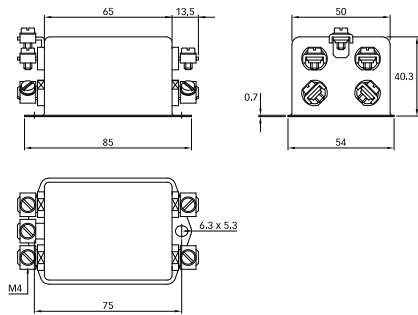


Typical electrical schematic

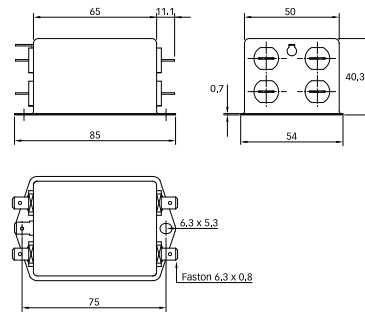


Mechanical data

Filters with faston terminals (3 to 10A types)



Filters with clamp terminals with M4 screw (20A types)



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



Headquarters, global innovation and development center

Switzerland

Schaffner Group

Nordstrasse 11
4542 Luterbach
T +41 32 6816 626
F +41 32 6816 630
info@schaffner.com
<http://www.schaffner.com>



Sales and application centers

China

Schaffner EMC Ltd. Shanghai
T20-3, No 565 Chuangye Road
Pudong New Area
201201 Shanghai
T +86 21 3813 9500
F F +86 21 3813 9501 / 02
cschina@schaffner.com
<http://www.schaffner.com.cn/>

Finland

Schaffner Oy
Sauvonrinne 19 H
08500 Lohja
T +358 19 35 72 71
finlandsales@schaffner.com

France

Schaffner EMC S.A.S.
112, Quai de Bezons
Boîte postale 133
95103 Argenteuil
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

Italy

Schaffner EMC S.r.l.
Via Galileo Galilei 47
20092 Cinisello Balsamo (MI)
T +39 02 66 04 30 45/47
F +39 02 61 23 943
italysales@schaffner.com

Japan

Schaffner EMC K.K.
1-32-12, Kamiyama, Setagaya-ku
7F Mitsui-seimei Sangenjaya Bldg.
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@schaffner.com
<http://www.schaffner.jp>

Singapore

Schaffner EMC Pte Ltd.
Blk 3015A Ubi Road 1
05-09 Kampong Ubi Industrial Estate
408705 Singapore
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain

Schaffner EMC España
Edificio E, Alcobendas
El Soto de la Moraleja Alcobendas
28109 Madrid
T +34 618 176 133
spainsales@schaffner.com

Sweden

Schaffner EMC AB
Turebergstorg 1, 6
19147 Sollentuna
T +46 8 5792 1121 / 22
F +46 8 92 96 90
swedensales@schaffner.com

Switzerland

Schaffner EMV AG
Nordstrasse 11
4542 Luterbach
T +41 32 6816 626
F +41 32 6816 641
sales@schaffner.ch

Taiwan R.O.C.

Schaffner EMV Ltd.
6 Floor, No. 413
Rui Guang Road
114 Neihu District Taipei City
T +886 2 87525050
F +886 2 87518086
taiwansales@schaffner.com

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

UK

Schaffner Ltd.
5 Ashville Way
Molly Millars Lane Wokingham
RG41 2PL Berkshire
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com
<http://www.schaffner.uk.com>

USA

Schaffner EMC Inc.
52 Mayfield Avenue
08837 Edison
T 1-800-367-5566
T 732-225-9533
F 732-225-4789
usasales@schaffner.com
<http://www.schaffner.com/us>

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