# **Three-stage EMC/EMI Filter**



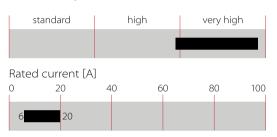
•	Rated	currents	from 6	5 to 20 A	

- IEC inlet for 6 and 10 A versions
- Up to 3 GHz attenuation
- High surge voltage protection



# Performance indicators

#### Attenuation performance



# **Technical Specifications**

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

Design corresponding to MTBF @ 40°C/230 V (Mil-HB-217F) 250 VAC, 50/60 Hz DC to 400 Hz 6 to 20 A @ 40°C max. P -> PE 420 VAC for 2 sec P -> N 420 VAC for 2 sec 2-25°C to +85°C (25/85/21) UL 94 V-2 or better UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 450,000 hours

### Approvals & Compliances



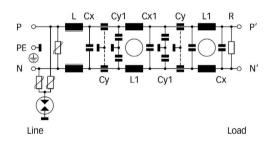
# **Features and Benefits**

- FN 700 Z series is designed to meet highest filter attenuation requirements over a wide range starting from a few kilohertz up to 3 GHz
- High surge voltage protection
- Choosing the FN 700 Z product line brings you the rapid availability of a standard filter associated with the necessary safety acceptances
- Standard filters are a practical solution helping you to pass EMI system approval in a short time
- Exceptional conducted attenuation performance, based on three-stage design and chokes with high saturation resistance and excellent thermal behavior
- Integrated gas discharge tubes and suppressors
- IEC inlet version for 6 and 10 A types
- Custom-specific versions on request

# **Typical Applications**

- Facility management
- Information protection
- Telecommunication
- Data processing
- Medical equipment
- Electrical and electronic equipment

### Typical electrical schematic



# **Filter Selection Table**

Filter*	Rated current	Leakage current*	Indu	ictance	Capacitance		Resistance	Input			Output	Weight		
	@ 40°C (25°C)	@ 230 VAC/50 Hz	L	L1	Сх	Cx1	Су	Cy1	R	connections		connections		
	[A]	[µA]	[µH]	[mH]	[µF]	[µF]	[nF]	[nF]	[MΩ]					[kg]
FN 700 Z-6-06	6 (6.9)	440	50	17.1	1		2.5		0.33		IEC C14		-06	2
FN 700 Z-10-06	10 (11.6)	440	50	9.4	1		2.5		0.33		IEC C14		-06	2.3
FN 700 Z-20-03	20 (23)	2600	60	5.5	1	2.2	5	10	0.33	-03		-03		3.5

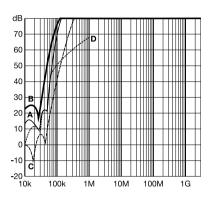
\* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

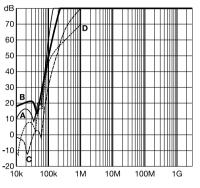
# **Typical Filter Attenuation**

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

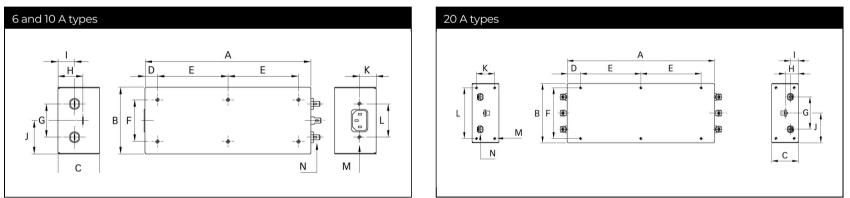
6 A types

10 to 20 A types





# **Mechanical Data**



# Dimensions

	6 A	10 A	20 A	Tolerances
Α	200	250	275	±0.3
в	80	80	110	±0.3
с	50	50	50	±0.2
D	15	25	25	±0.3
E	85	100	112.5	±0.2
F	50	50	94	±0.2
G	40	40	60	±0.3
н	30	30	25	±0.5
1	20	20	15	±0.3
J	40	40	55	±0.3
к	20	20	34	±0.3
L	40	40	94	±0.1
м	M4 x 6	M4 × 6	M4 x 6	
N	6.3 × 0.8	6.3 × 0.8	M4	

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.

# Headquarters, Global Innovation and Development

#### Switzerland

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

To find your local partner within Schaffner's global network <u>schaffner.com</u>

#### © 2022 Schaffner Group

The content of this document has been carefully checked and understood. However, neither Schaffner nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifica-tions are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Schaffner does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Swiss law and resulting disputes shall be settled by the courts at the place of business of Schaffner Holding AG. Latest publications and a complete disclaimer can be downloa-ded from the Schaffner website. All trademarks recognized.

# Sales and Application Centers

#### China

Schaffner EMC Ltd. Shanghai T20-3 C, No 565 Chuangye Road,Pudong district 201201 Shanghai +86 2138139500 cschina@schaffner.com

#### Finland

Schaffner Oy Sauvonrinne 19 H 8500 Lohja +358 50 468 7284 finlandsales@schaffner.com

#### France

Schaffner EMC S.A.S. 16-20 Rue Louis Rameau 95875 Bezons +33 1 34 34 30 60 francesales@schaffner.com

### Germany

Schaffner Deutschland GmbH Schoemperlenstrasse 12B

76185 Karlsruhe +49 721 56910 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 +91 8067935355 indiasales@schaffner.com

### Italy

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

# Japan

Schaffner EMC K.K. ISM Sangenjaya 7F 1-32-12 Kamiuma, Setagaya-ku 154-0011 Tokyo +81 3 5712 3650 japansales@schaffner.com

#### Singapore

Schaffner EMC Pte Ltd. Blk 3015A Ubi Road 1, #05-09, Kampong Ubi Industrial Estate 408705 Singapore +65 63773283 singaporesales@schaffner.com

#### Spain

#### Schaffner EMC España

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

Schaffner Group DATA SHEET 15. Jun 2022

#### Sweden

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

### Switzerland

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

#### Taiwan

Schaffner EMV Ltd.

U-Town 20 Floor-2, No 97, Section 1, XinTai 5th Road, XiZhi District 22175 New Taipei City +886 226975500 taiwansales@schaffner.com

# Thailand

Schaffner EMC Co. Ltd. Sathorn Square Tower Room 3780, 37FL, 98 North-Sathorn Rd, Silom, Bangrak 10500 Bangkok +66 621056397 thailandsales@schaffner.com

## United Kingdom

Schaffner Ltd. 1, Oakmede Place Terrace Road RG42 4JF Binfield +44 118 9770070 uksales@schaffner.com

## **United States**

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