

Three-stage EMC/EMI Filter

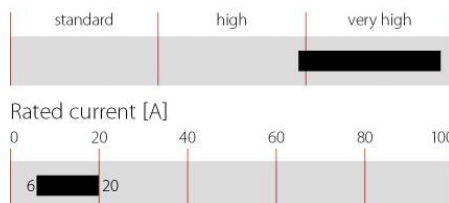


- Rated currents from 6 to 20 A
- IEC inlet for 6 and 10 A versions
- Up to 3GHz attenuation
- High surge voltage protection



Performance indicators

Attenuation performance



Technical specifications

Maximum continuous operating voltage	250 VAC, 50/60 Hz
Operating frequency	dc to 400 Hz
Rated currents	6 to 20 A @ 40 °C max.
High potential test voltage	P → PE 420 VAC for 2 sec P → N 420 VAC for 2 sec
Temperature range (operation and storage)	-25 °C to +85 °C (25/85/21)
Flammability corresponding to	UL 94 V-2 or better
Design corresponding to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
MTBF @ 40°C/230V (Mil-HB-217F)	450,000 hours

Approvals

RoHS

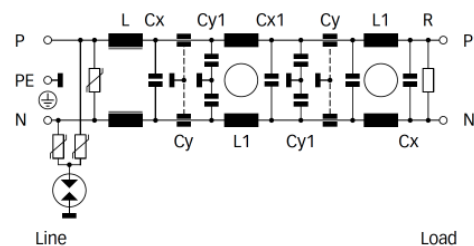
Features and benefits

- FN 700Z series is designed to meet highest filter attenuation requirements over a wide range starting from a few kilohertz up to 3GHz
- High surge voltage protection
- Choosing the FN 700Z 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 10A 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

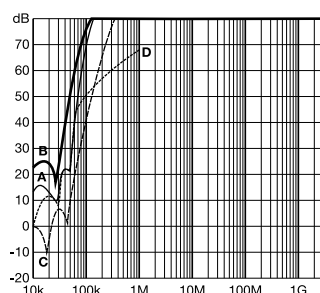
Filter*	Rated current @ 40 °C (25 °C) [A]	Leakage current* @ 230 VAC/50 Hz [μA]	Inductance		Capacitance				Resistance R [MΩ]	Input connections		Output connections		Weight [kg]
			L [μH]	L1 [mH]	Cx [μF]	Cx1 [μF]	Cy [nF]	Cy1 [nF]						
FN 700Z-6-06	6 (6.9)	440	50	17.1	1		2.5		0.33	IEC C14		-06		2
FN 700Z-10-06	10 (11.6)	440	50	9.4	1		2.5		0.33	IEC C14		-06		2.3
FN 700Z-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.

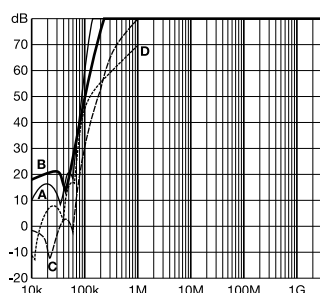
Typical filter attenuation

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

6 A types

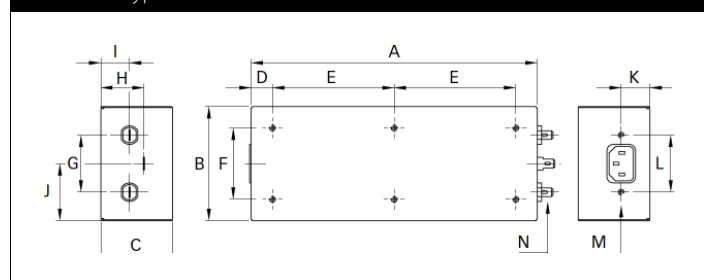


10 to 20 A types

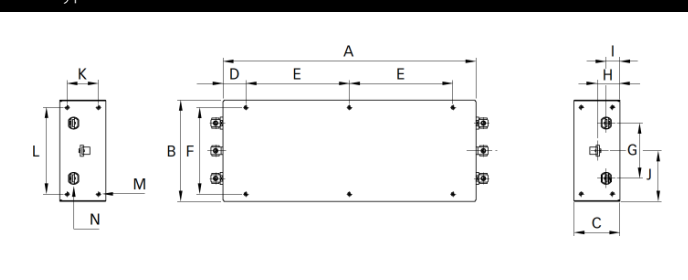


Mechanical data

6 and 10 A types



20 A types



Dimensions

	6 A	10 A	20 A	Tolerances
A	200	250	275	±0.3
B	80	80	110	±0.3
C	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
H	30	30	15	±0.5
I	20	20	25	±0.3
J	40	40	55	±0.3
K	20	20	34	±0.3
L	40	40	94	±0.1
M	M4 x 6	M4 x 6	M4 x 6	
N	6.3 x 0.8	6.3 x 0.8	M4	

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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