

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



Rate	d	curr	ents	from	6 t	o 20 A	
150			6	1.7.0			

IEC inlet for 6 and 10 A versionsUp to 3 GHz attenuation

## High surge voltage protection



## Performance indicators

### Attenuation performance



## **Technical Specifications**

Maximum continuous operating voltage	250 VAC, 50/60 Hz				
Nominal operating voltage	230 VAC				
Rated currents	6 to 20 A @ 40℃				
Operating frequency	DC to 400 Hz				
High potential test voltage	P -> PE 420 VAC for 2 sec P -> N 420 VAC for 2 sec				
Temperature range (operation and storage)	-25℃ to +85℃ (25/85/21)				
Flammability corresponding to	UL 94 V-0				
Design corresponding to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939				
MTBF (Mil-HB-217F)	>450,000 h @ 40°C/230 V				

# Approvals & Compliances

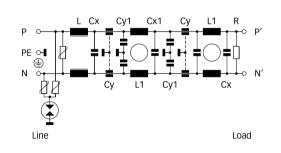
## **Features and Benefits**

- 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	uctance	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

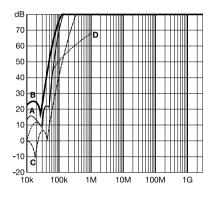
\* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

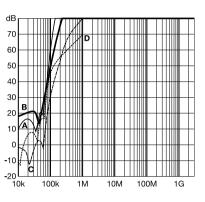
## **Typical Filter Attenuation**

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

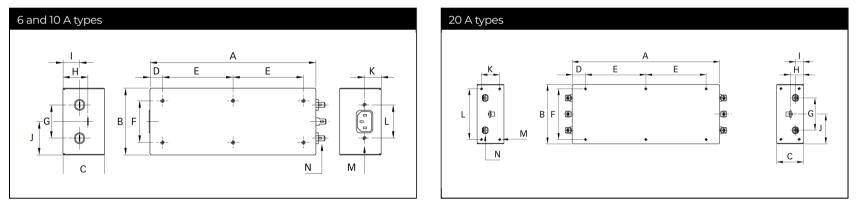
6 A types

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 x 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.

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