

# Three-stage EMC/RFI Filter



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

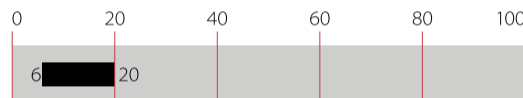


### Performance indicators

Attenuation performance



Rated current [A]



### 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

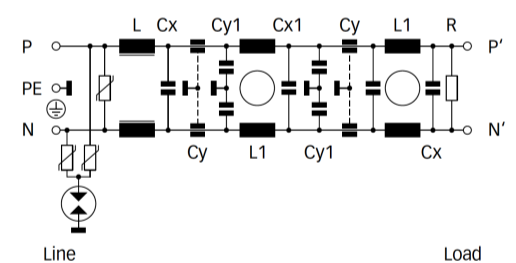
## Technical Specifications

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

## 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]				
<b>FN 700 Z-6-06</b>	6 (6.9)	440	50	17.1	1		2.5		0.33	IEC C14	-06	2
<b>FN 700 Z-10-06</b>	10 (11.6)	440	50	9.4	1		2.5		0.33	IEC C14	-06	2.3
<b>FN 700 Z-20-03</b>	20 (23)	2600	60	5.5	1	2.2	5	10	0.33	-03	-03	3.5

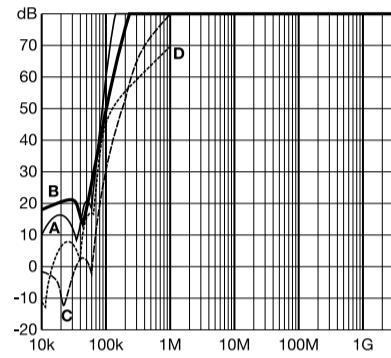
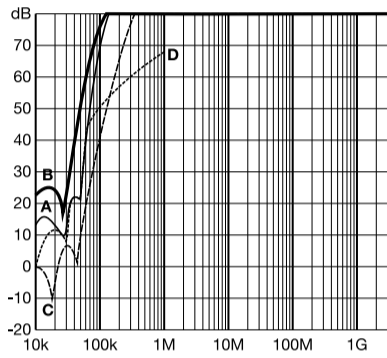
\* Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

### Typical Filter Attenuation

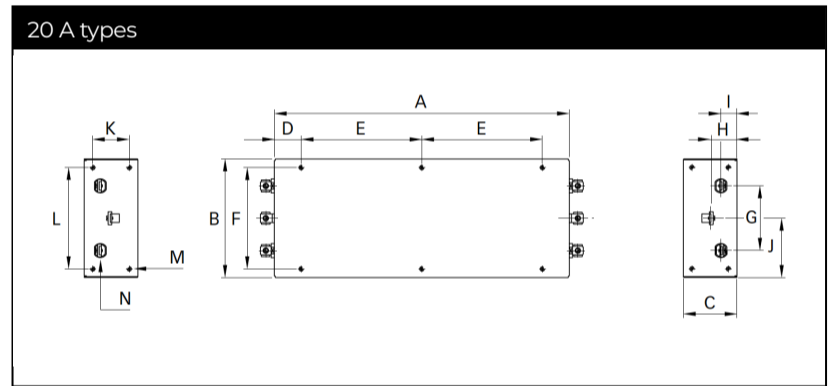
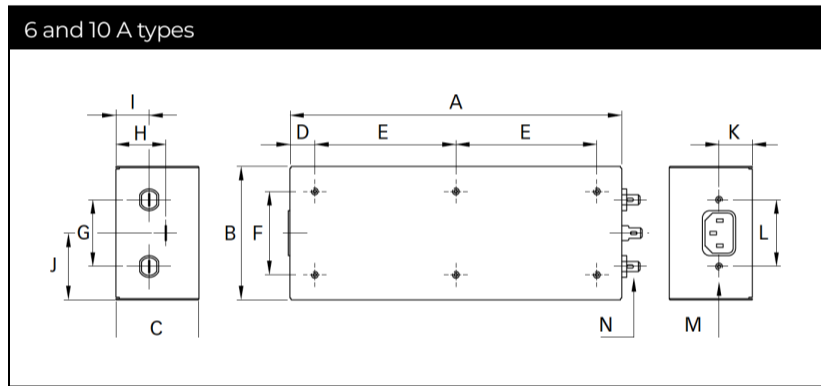
Per CISPR 17; A=50 Ω/50 Ω sym; B=50 Ω/50 Ω asym; C=0.1 Ω/100 Ω sym; D=100 Ω/0.1 Ω sym

6 A types

10 to 20 A types



### Mechanical Data



### Dimensions

	6 A	10 A	20 A	Tolerances
<b>A</b>	200	250	275	±0.3
<b>B</b>	80	80	110	±0.3
<b>C</b>	50	50	50	±0.2
<b>D</b>	15	25	25	±0.3
<b>E</b>	85	100	112.5	±0.2
<b>F</b>	50	50	94	±0.2
<b>G</b>	40	40	60	±0.3
<b>H</b>	30	30	25	±0.5
<b>I</b>	20	20	15	±0.3
<b>J</b>	40	40	55	±0.3
<b>K</b>	20	20	34	±0.3
<b>L</b>	40	40	94	±0.1
<b>M</b>	M4 x 6	M4 x 6	M4 x 6	
<b>N</b>	6.3 x 0.8	6.3 x 0.8	M4	

All dimensions in mm; 1 inch = 25.4 mm

Tolerances according: ISO 2768-m/EN 22768-m

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on filter connectors.

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