

# Ultra-compact Low Leakage current EMC/EMI Filter



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

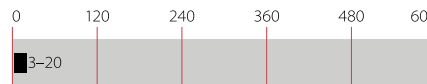


### Performance indicators

Attenuation performance



Rated current [A]



### Approvals & Compliances



### 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 20 A, 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

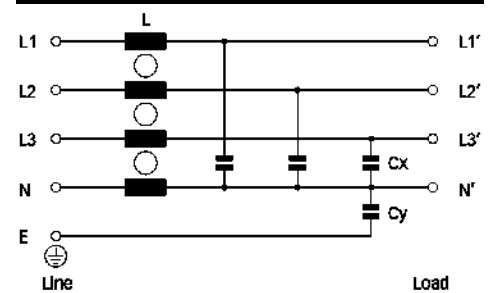
### Technical specifications

<b>Maximum continuous operating voltage</b>	3x 440/250 VAC
<b>Operating frequency</b>	DC to 400 Hz
<b>Rated currents</b>	3 to 20 A @ 40°C
<b>High potential test voltage</b>	P/N → E 2000 VAC for 2 sec P → P 1350 VDC for 2 sec P → N 800 VAC for 2 sec
<b>Overload capability</b>	4x rated current at switch on, 1.5x rated current for 1 minute, once per hour
<b>Temperature range (operation and storage)</b>	-25°C to +100°C (25/100/21)
<b>Flammability corresponding to</b>	UL 94 V-2 or better
<b>Design corresponding to</b>	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
<b>MTBF @ 40°C/230 V (Mil-HB-217F)</b>	850,000 hours




### Typical applications

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

### Typical electrical schematic



### Filter selection table

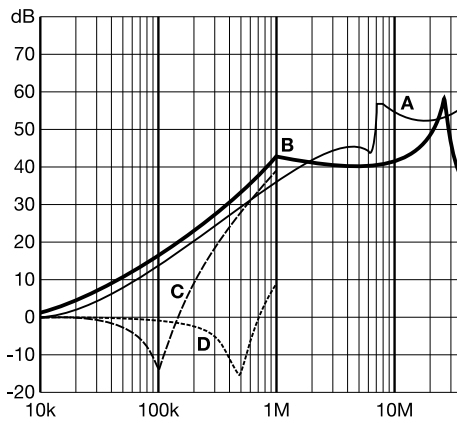
Filter	Rated current @ 40°C (25°C)	Leakage current* @ 440 VAC/50 Hz	Power loss @ 25 °C/ 50Hz	Input/Output connections			weight
	[A]	[mA]	[W]				[kg]
<b>FN 355-3-05</b>	3 (3.4)	0.0	1.4		-05		0.15
<b>FN 355-6-05</b>	6 (6.9)	0.0	1.5		-05		0.21
<b>FN 355-10-05</b>	10 (11.5)	0.0	1.8		-05		0.25
<b>FN 355-20-06</b>	20 (23)	0.1	3.4		-06		0.29
<b>FN 355-20-03</b>	20 (23)	0.1	3.4	-03			0.29
<b>FN 355-30-44</b>	30 (34)	0.2	4.1			-44	0.44

\* Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

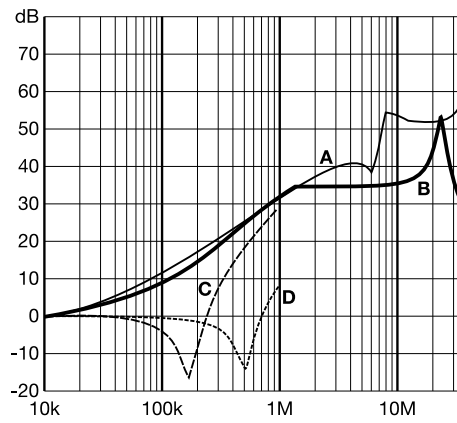
### Typical filter attenuation

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

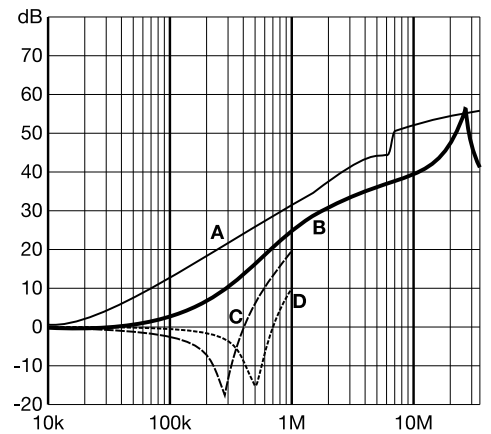
3 A types



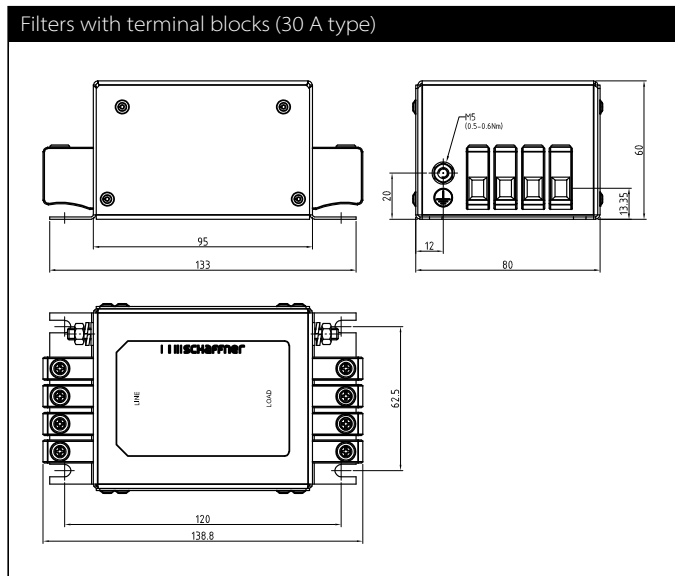
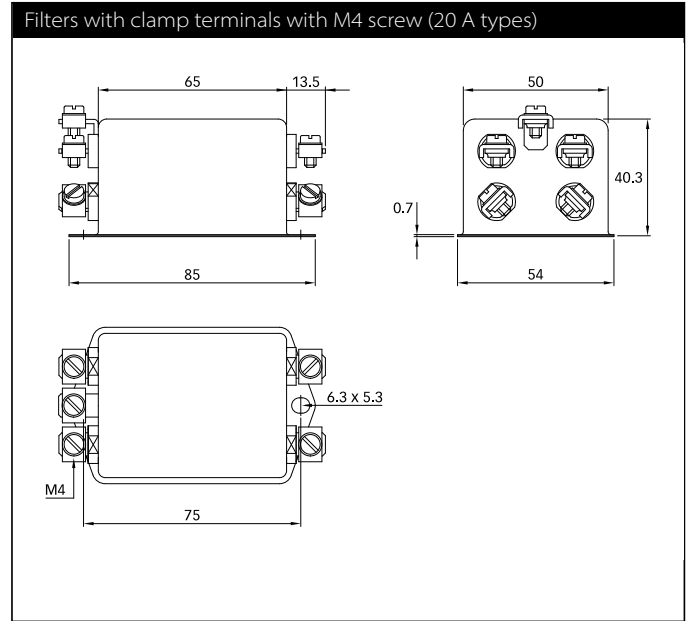
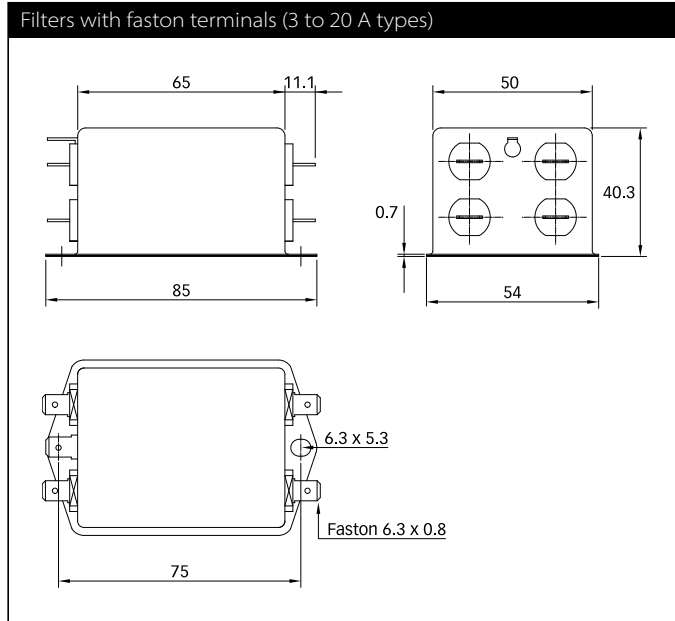
6 A types



10 and 30A types



### Mechanical data



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 connectors.

### Filter input/output connector cross sections

	<b>-44</b>
<b>Solid wire</b>	0.5-10 mm <sup>2</sup>
<b>Flex wire</b>	0.5-6 mm <sup>2</sup>
<b>Flex wire AWG</b>	AWG 20-8
<b>Recommended torque</b>	1.0-1.2 Nm

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



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