

# 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



### Approvals



### 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

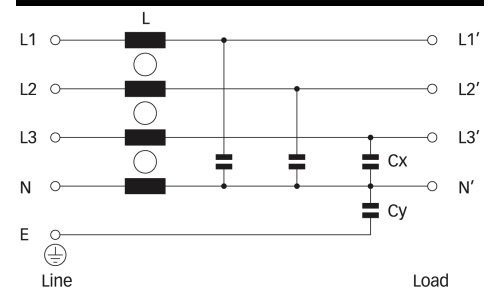
### Technical specifications

<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 → E 2000 VAC for 2 sec P → P 1900 VDC 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

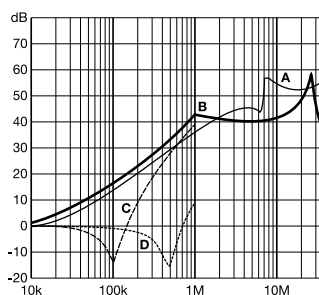
Filter	Rated current @ 40°C (25°C)	Leakage current* @ 400 VAC/50 Hz	Power loss @ 25°C/50 Hz	Input/Output connections		Weight
	[A]	[mA]	[W]			[kg]
FN 355-3-05	3 (3.4)	0.07	1.4		-05	0.25
FN 355-6-05	6 (6.9)	0.07	1.5		-05	0.25
FN 355-10-05	10 (11.5)	0.07	1.8		-05	0.25
FN 355-20-03	20 (23)	0.29	3.4	-03		0.29

\* Maximum leakage under normal operating conditions, based on the assumption that all three phases and the neutral conductor are connected to the supply and the consumer. In this case, the current will mainly return through the neutral line, not as earth leakage.

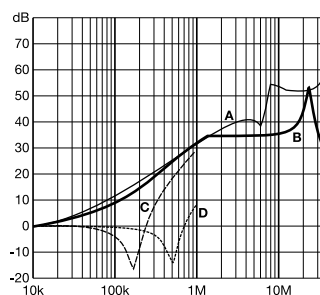
### Typical filter attenuation

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

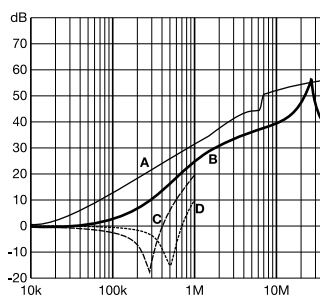
3 A types



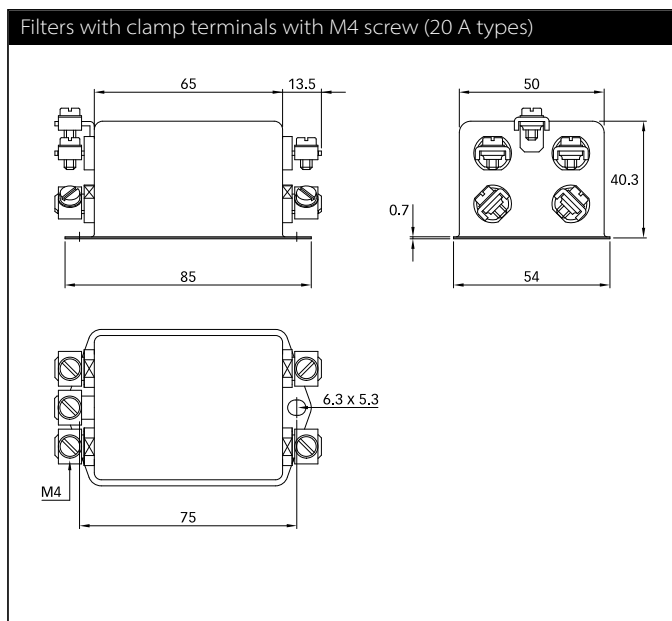
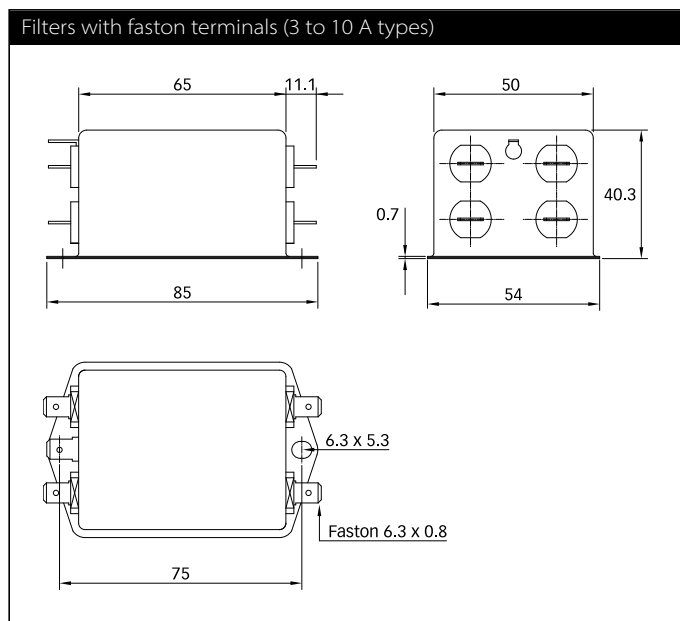
6 A types



10 and 20A 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.



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