

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]



Technical specifications

Maximum continuous operating voltage	3x 440/250 VAC
Operating frequency	dc to 400 Hz (up to 60Hz for UL, CSA)
Rated currents	3 to 20 A @ 40 °C
High potential test voltage	P → E 2000 VAC for 2 sec P → P 1900 VDC for 2 sec
Overload capability	4x rated current at switch on, 1.5x rated current for 1 minute, once per hour
Temperature range (operation and storage)	-25 °C to +100 °C (25/100/21)
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)	850,000 hours

Approvals



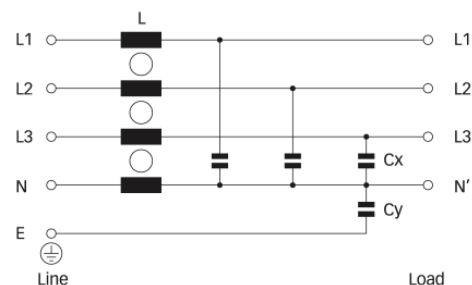
Features and benefits

- 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 20A, 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



Typical applications

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

Typical electrical schematic



Filter selection table

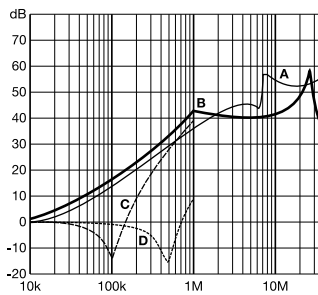
Filter	Rated current @ 40 °C (25 °C)	Leakage current* @ 400 VAC/50 Hz	Power loss @ 25 °C/50 Hz	Input/Output connections		Weight
	[A]	[mA]	[W]			[kg]
FN 355-3-05	3 (3.4)	0.07	1.4		-05	0.25
FN 355-6-05	6 (6.9)	0.07	1.5		-05	0.25
FN 355-10-05	10 (11.5)	0.07	1.8		-05	0.25
FN 355-20-03	20 (23)	0.29	3.4	-03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

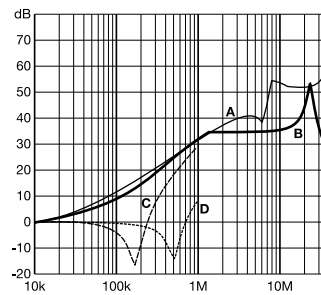
Typical filter attenuation

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

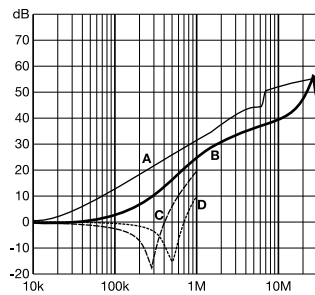
3 A types



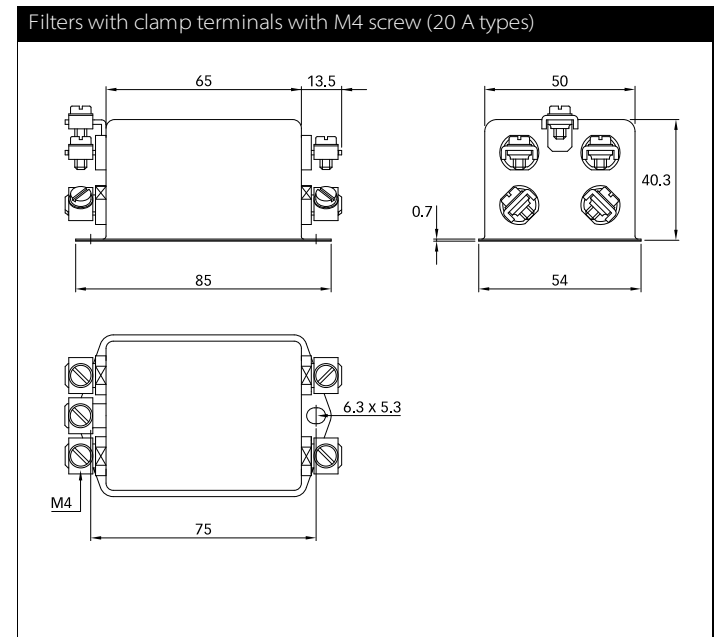
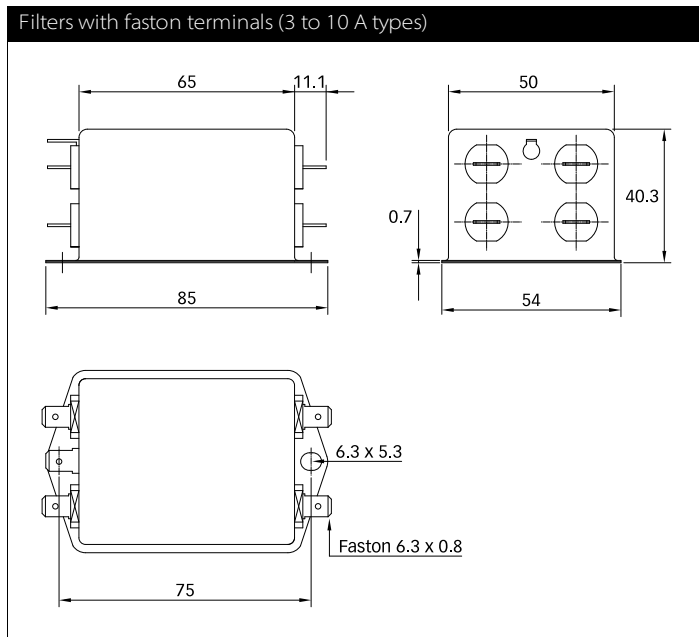
6 A types



10 and 20A types



Mechanical data



All dimensions in mm; 1 inch = 25.4 mm
Tolerances according to: ISO 2768-m / EN 22768-m

Please visit www.schaffner.com to find more details on connectors.



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