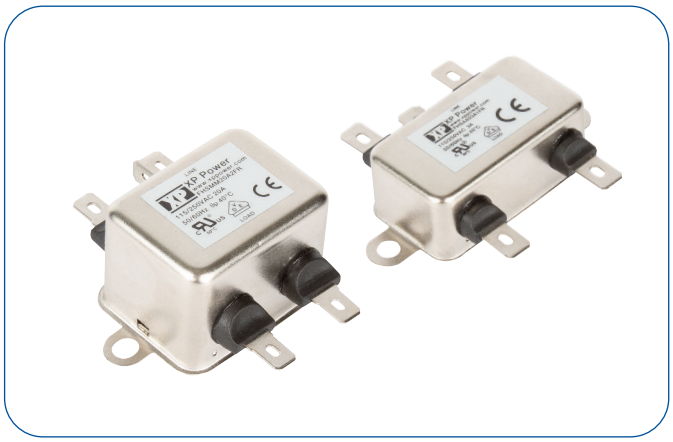
Chassis Mount Filter



- Chassis Mount Filter
- Single Stage Design
- Compact Design
- ITE & Medical Versions
- 1, 3, 6, 15 & 20A Rating
- 6.3 x 0.8mm Faston Terminals
- Bleed Resistor
- Shielded Metal Body
- Wide Operating Temperature Range
- 3 Year Warranty

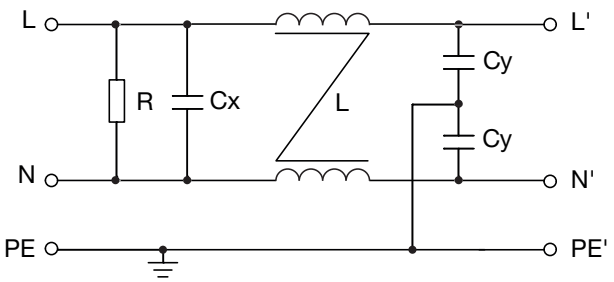
The FHSA/M single stage filters are housed in a compact, chassis mounting metal case, there are versions for ITE (FHSAAxxAxFR), or medical applications (FHSMMxxAxFR) with a low 5µA @250VAC earth leakage. Input and output connections are via 6.3 x 0.8mm Faston terminals. The filter should be fitted as close as possible to the mains cable entry point to minimize any radiated emissions from the mains cable within the equipment. Suitable for class I appliances, all models feature a shielded metal body, and are fitted with a bleed resistor to safely discharge the filter capacitors when power is disconnected. Safety approvals are EN60939-2 for passive filters & ANSI/UL1283 for EMI filters. They feature a wide operating temperature range of -40°C to +110°C with full power operation up to +50°C.

Specifications

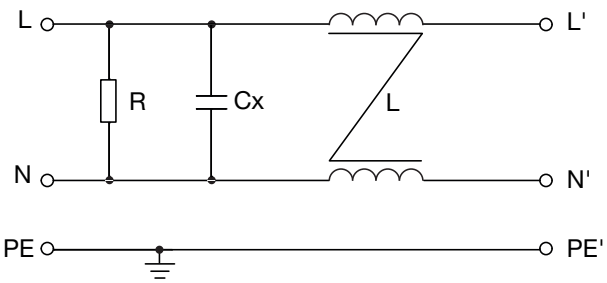
Characteristics	Minimum	Typical	Maximum	Units	Notes and Conditions
Input Voltage	0	115/230	264	VAC	
Input Frequency	DC		400	Hz	
Rated Current	1		20	A	See models and ratings table
Earth Leakage Current	0.3		0.6	mA	ITE versions, see models and ratings table
	2		5	µA	Medical versions, see models and ratings table
MTBF	2.2			MHrs	MIL-STD 217F
Flammability Rating	UL94V-2				
Temperature Operating	-40		110	°C	See derating curve
Safety Approvals	EN60939-2				Passive filter units for EMI suppression
	ANSI/UL1283				Electromagnetic Interference Filters
Terminals	Faston 6.3 x 0.8mm straight				
Protection Class	Suitable for appliances with protection Class I				
Dielectric Strength		1500		VAC	

Electrical Schematic

ITE Applications



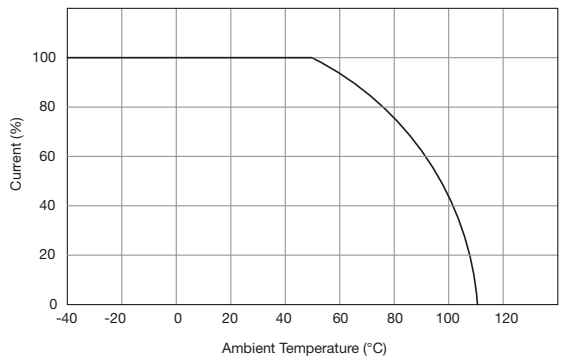
Medical Applications



Models & Ratings

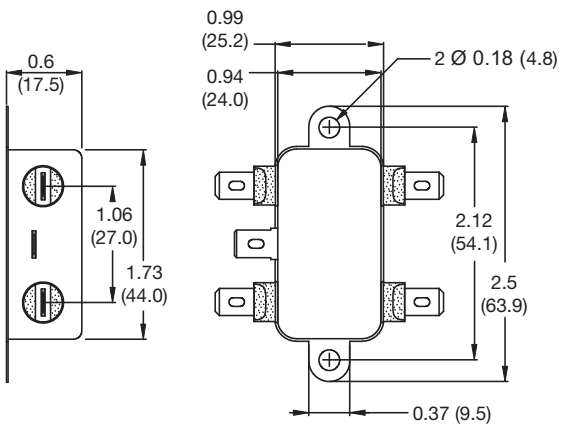
Rated current	Leakage current		Inductance at 10 kHz, 0.25 V	Capacitance		Resistance	Weight	Application	Mounting	Filter
	115VAC/60Hz	250VAC/50Hz		Cx	Cy					
1 A	0.3 mA	0.6 mA	2 x 10 mH	0.1 µF	6.6 nF	1 MΩ	37g	ITE	Chassis	FHSAA01A1FR
3 A	0.3 mA	0.6 mA	2 x 1.2 mH	0.1 µF	6.6 nF	1 MΩ	37g	ITE	Chassis	FHSAA03A1FR
6 A	0.3 mA	0.6 mA	2 x 0.8 mH	0.1 µF	6.6 nF	1 MΩ	43g	ITE	Chassis	FHSAA06A1FR
10 A	0.3 mA	0.6 mA	2 x 0.3 mH	0.1 µF	6.6 nF	1 MΩ	43g	ITE	Chassis	FHSAA10A1FR
15 A	0.3 mA	0.6 mA	2 x 0.8 mH	0.1 µF	6.6 nF	1 MΩ	99g	ITE	Chassis	FHSAA15A2FR
20 A	0.3 mA	0.6 mA	2 x 0.6 mH	0.1 µF	6.6 nF	1 MΩ	94g	ITE	Chassis	FHSAA20A2FR
1 A	2 µA	5 µA	2 x 10 mH	0.1 µF	None	1 MΩ	37g	Medical	Chassis	FHSMM01A1FR
3 A	2 µA	5 µA	2 x 1.2 mH	0.1 µF	None	1 MΩ	37g	Medical	Chassis	FHSMM03A1FR
6 A	2 µA	5 µA	2 x 0.8 mH	0.1 µF	None	1 MΩ	43g	Medical	Chassis	FHSMM06A1FR
10 A	2 µA	5 µA	2 x 0.3 mH	0.1 µF	None	1 MΩ	43g	Medical	Chassis	FHSMM10A1FR
15 A	2 µA	5 µA	2 x 0.8 mH	0.1 µF	None	1 MΩ	99g	Medical	Chassis	FHSMM15A2FR
20 A	2 µA	5 µA	2 x 0.6 mH	0.1 µF	None	1 MΩ	94g	Medical	Chassis	FHSMM20A2FR

Thermal Derating



Mechanical Details

FHSxxA1FR



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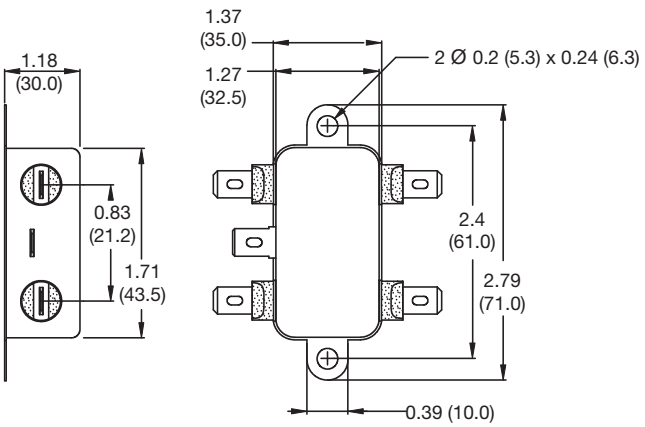
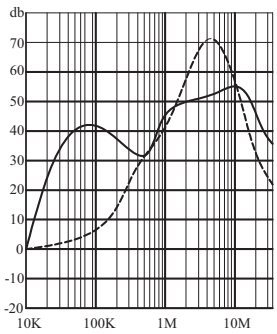


Typical Attenuation Curves

Per CISPR 17, 50 Ω system

——————— Asymmetrical (Common Mode) - - - - - - - - - - - - - - - - Symmetrical (Differential Mode)

FHSAA01A1FR



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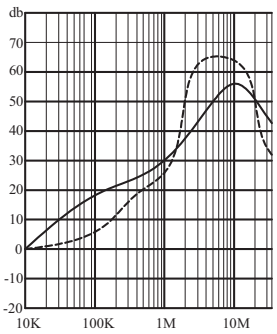

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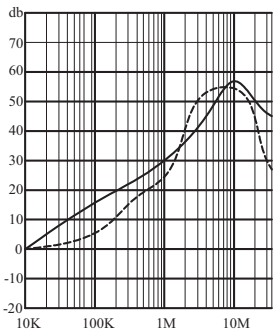

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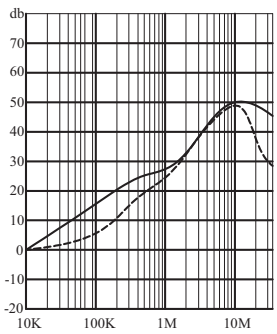

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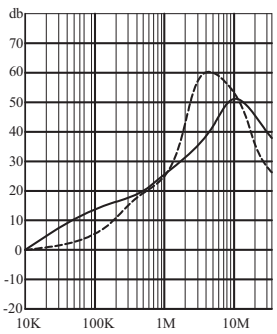

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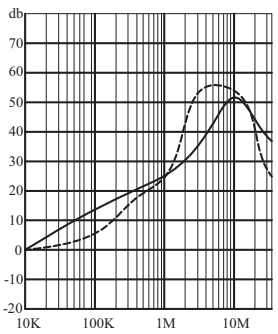

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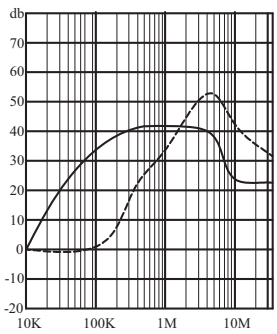

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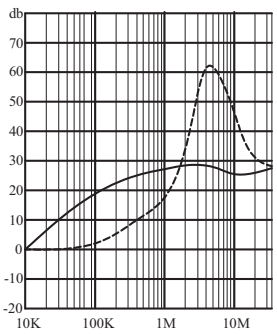

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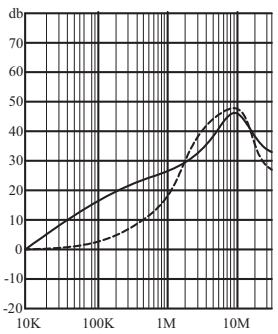

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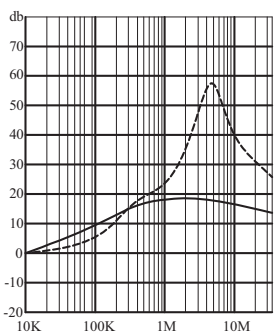

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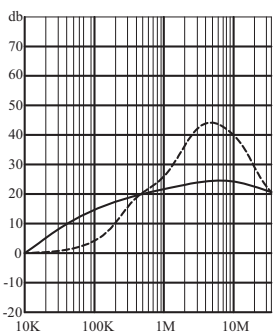

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