

## Chassis Mount Filter

- Chassis Mount Filter
- Single Stage Design
- Compact Design
- Medical Applications
- 1, 3, 6, 10, 15 & 20A Rating
- 6.3 x 0.8mm Faston Terminals
- Bleed Resistor
- Shielded Metal Body
- Wide Operating Temperature Range
- 3 Year Warranty

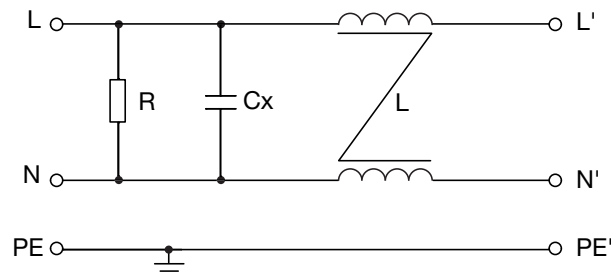


The FHSM single stage filters are housed in a compact, chassis mounting metal case, for medical applications with a low 5 $\mu$ A @250VAC earth leakage. Input and output connections are via 6.3 x 0.8mm Faston terminals. The filter should be fitted as close as possible to the mains cable entry point to 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
Rated Voltage			250	VAC	
Input Frequency	DC		400	Hz	
Rated Current	1		20	A	See models and ratings table
Earth Leakage Current	2		5	$\mu$ A	See models and ratings table
MTBF	2.2			MHrs	MIL-HDBK 217F, 250 VAC at 40°C
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	

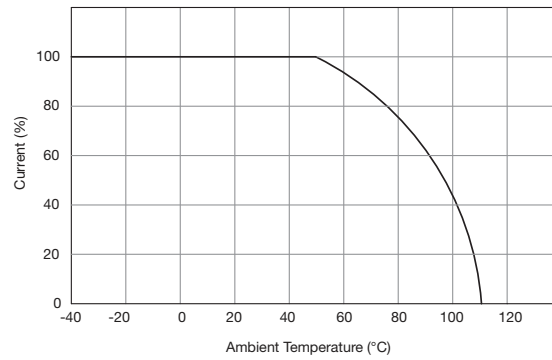
### Electrical Schematic



## 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	2 $\mu$ A	5 $\mu$ A	2 x 10 mH	0.1 $\mu$ F	None	1 M $\Omega$	37g	Medical	Chassis	FHSMM01A1FR
3 A	2 $\mu$ A	5 $\mu$ A	2 x 1.2 mH	0.1 $\mu$ F	None	1 M $\Omega$	37g	Medical	Chassis	FHSMM03A1FR
6 A	2 $\mu$ A	5 $\mu$ A	2 x 0.8 mH	0.1 $\mu$ F	None	1 M $\Omega$	43g	Medical	Chassis	FHSMM06A1FR
10 A	2 $\mu$ A	5 $\mu$ A	2 x 0.3 mH	0.1 $\mu$ F	None	1 M $\Omega$	43g	Medical	Chassis	FHSMM10A1FR
15 A	2 $\mu$ A	5 $\mu$ A	2 x 0.8 mH	0.1 $\mu$ F	None	1 M $\Omega$	99g	Medical	Chassis	FHSMM15A2FR
20 A	2 $\mu$ A	5 $\mu$ A	2 x 0.6 mH	0.1 $\mu$ F	None	1 M $\Omega$	94g	Medical	Chassis	FHSMM20A2FR

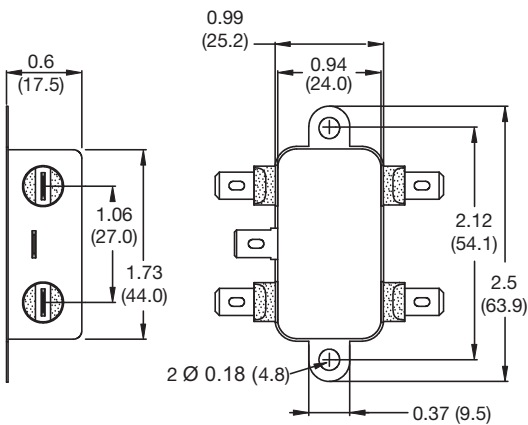
## Thermal Derating



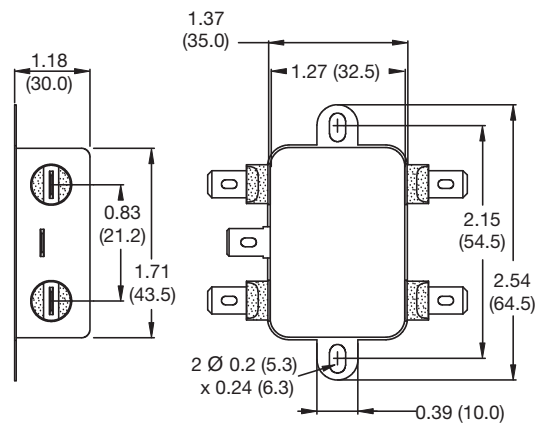
## Mechanical Details

All dimensions in inches (mm)

### FHSMMxxA1FR



### FHSMMxxA2FR

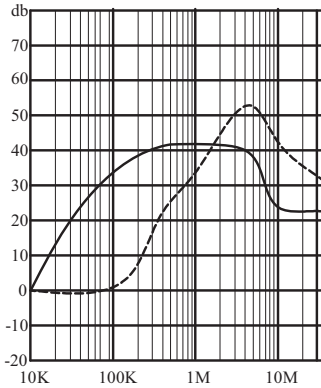


## Typical Attenuation Curves

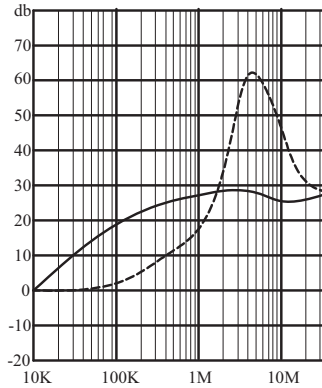
Per CISPR 17, 50 Ω system

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

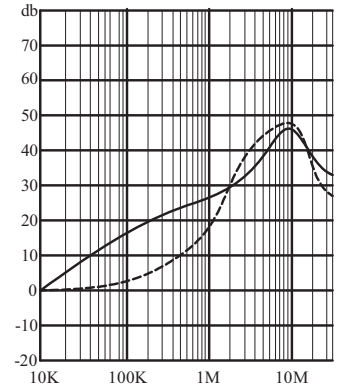
FHSMM01A1FR



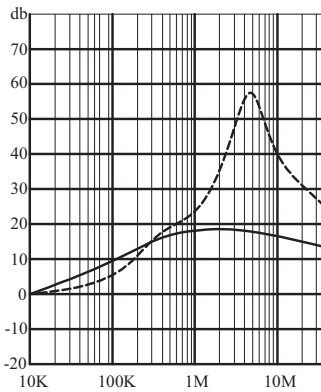
FHSMM03A1FR



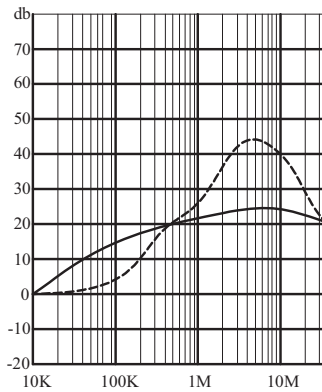
FHSMM06A1FR



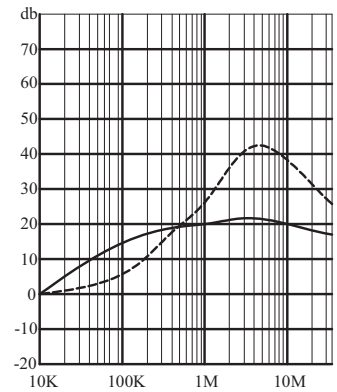
FHSMM10A1FR



FHSMM15A2FR



FHSMM20A2FR



## Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	