

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

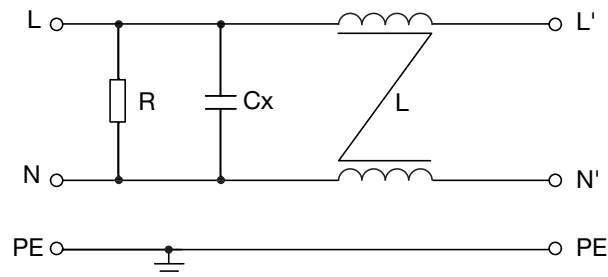


The FHSM single stage filters are housed in a compact, chassis mounting metal case, for medical applications with a low 5µA @250VAC earth leakage. Input and output connections are via 6.3 x 0.8mm Faston terminals. The filter should be fitted as close as possible to the mains cable entry point to minimize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

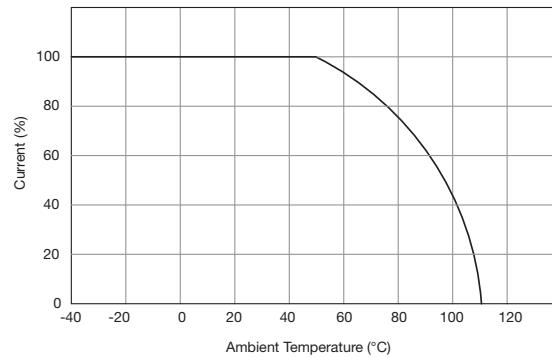
Electrical Schematic



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

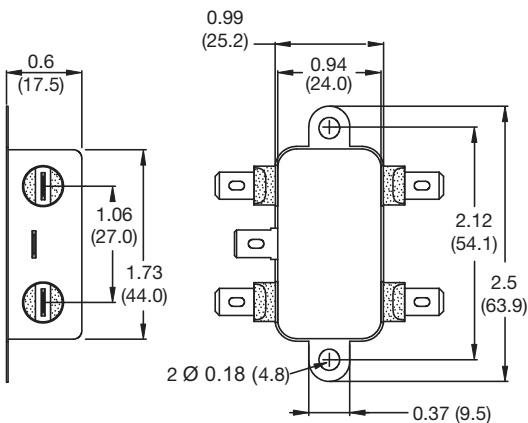
Thermal Derating



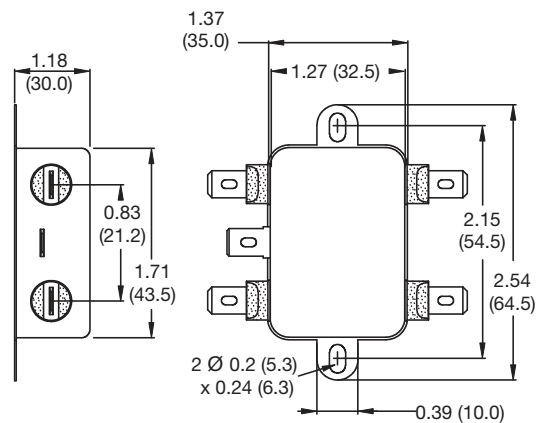
Mechanical Details

All dimensions in inches (mm)

FHSMMxxA1FR



FHSMMxxA2FR

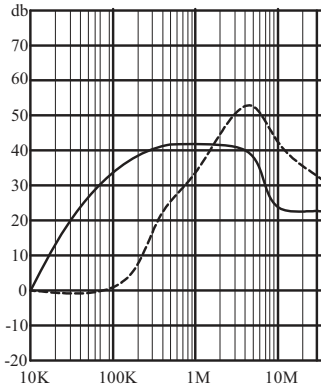


Typical Attenuation Curves

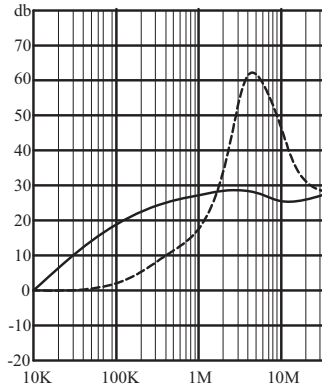
Per CISPR 17, 50 Ω system

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

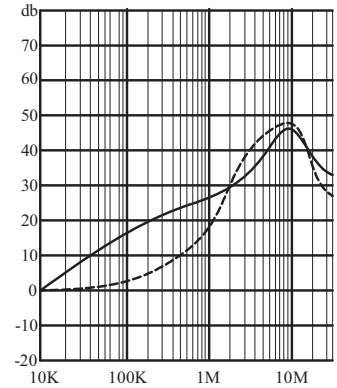
FHSMM01A1FR



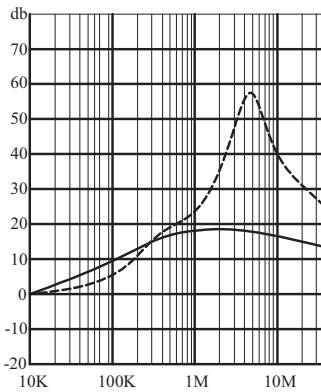
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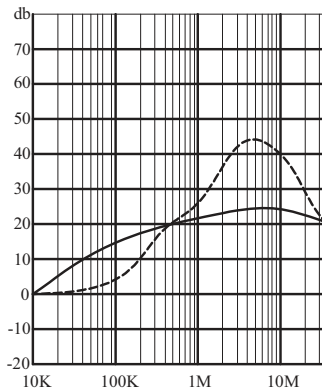
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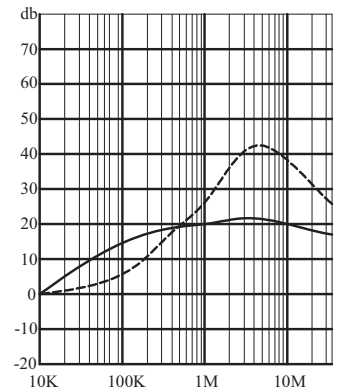
FHSMM10A1FR



FHSMM15A2FR



FHSMM20A2FR



Safety Approvals

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