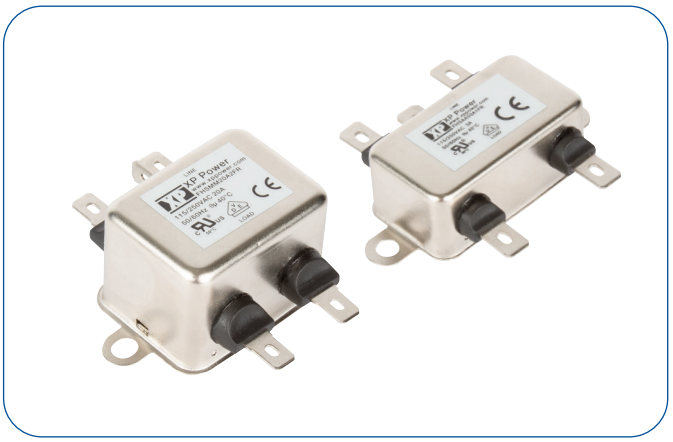
# Chassis Mount Filter



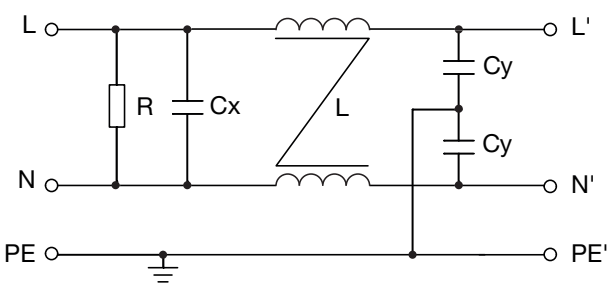
- Chassis Mount Filter
- Single Stage Design
- Compact Design
- ITE Applications
- 1, 3, 6, 10, 15 & 20A Rating
- 6.3 x 0.8mm Faston Terminals
- Bleed Resistor
- Shielded Metal Body
- Wide Operating Temperature Range
- 3 Year Warranty

The FHSA single stage filters are housed in a compact, chassis mounting metal case, for ITE applications. 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 | 0.3 | | 0.6 | mA | See models and ratings table |
| MTBF | 2.2 | | | MHrs | MIL-HDBK 217F, 230 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 | |

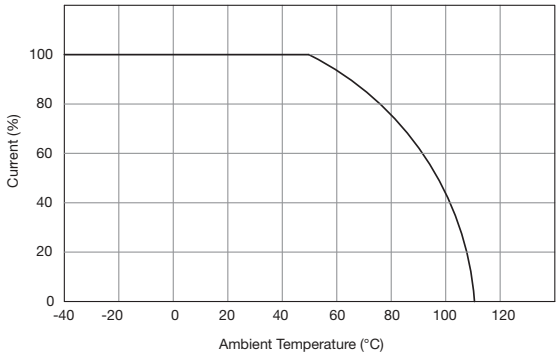
## Electrical Schematic



## 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 | 0.3 mA | 0.6 mA | 2 x 10 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 37g | ITE | Chassis | FHSAA01A1FR |
| 3 A | 0.3 mA | 0.6 mA | 2 x 1.2 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 37g | ITE | Chassis | FHSAA03A1FR |
| 6 A | 0.3 mA | 0.6 mA | 2 x 0.8 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 43g | ITE | Chassis | FHSAA06A1FR |
| 10 A | 0.3 mA | 0.6 mA | 2 x 0.3 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 43g | ITE | Chassis | FHSAA10A1FR |
| 15 A | 0.3 mA | 0.6 mA | 2 x 0.8 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 99g | ITE | Chassis | FHSAA15A2FR |
| 20 A | 0.3 mA | 0.6 mA | 2 x 0.6 mH | 0.1 µF | 2 x 3.3 nF | 1 MΩ | 94g | ITE | Chassis | FHSAA20A2FR |

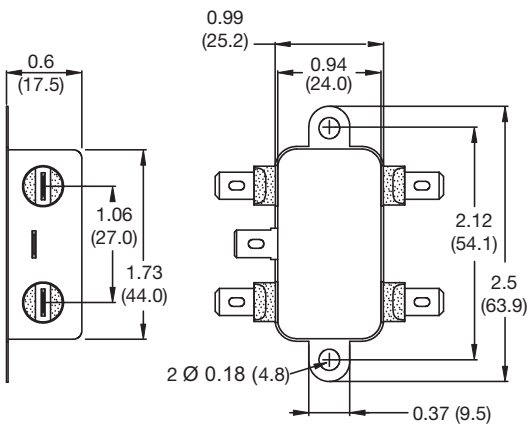
## Thermal Derating



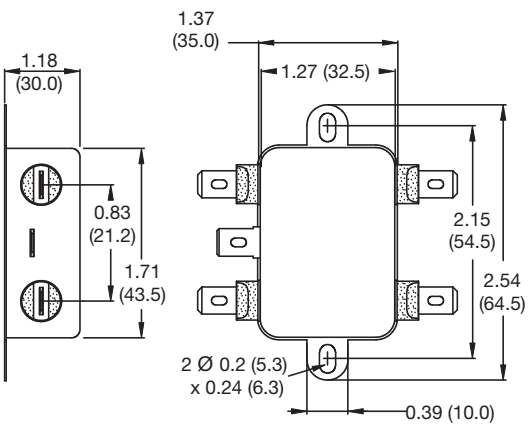

## Mechanical Details

All dimensions in inches (mm)

### FHSAAxxA1FR




### FHSAAxxA2FR

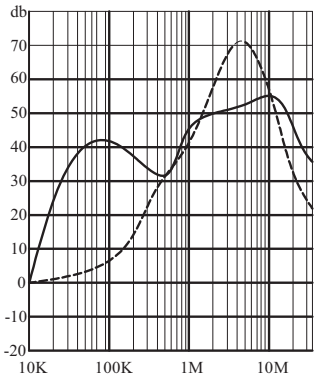


## Typical Attenuation Curves

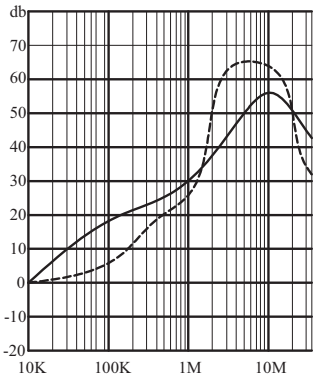
Per CISPR 17, 50 Ω system

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

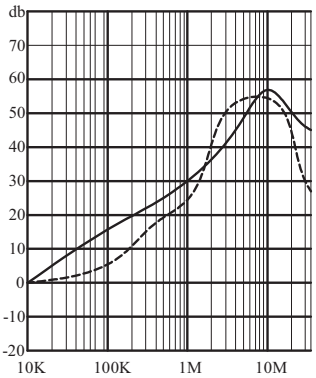
FHSAA01A1FR



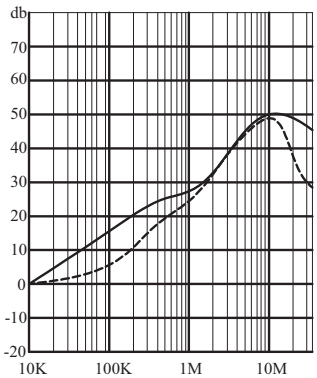

FHSAA03A1FR



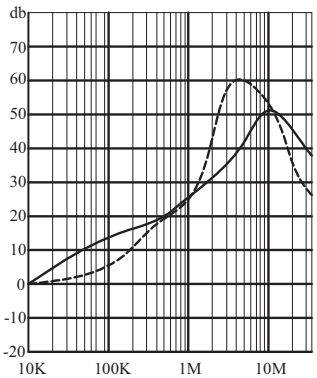

FHSAA06A1FR




FHSAA10A1FR




FHSAA15A2FR




FHSAA20A2FR