



MPE
Quality, Reliability, Performance

TEMPEST PLUGGABLE POWER FILTERS RANGE FOR NORTH AMERICA



FM00699



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Description

MPE Limited's range of TEMPEST pluggable filters has been designed for use with TEMPEST applications where compliance to NATO SDIP-27 B/C is required. Utilising ultra-high speed feedthrough capacitors, all units deliver optimum performance across the full frequency range and under all loading conditions. The filter range has been designed to ensure fitting and electrical installation is as quick and simple as possible.

Typical Applications

- TEMPEST applications requiring EMI protection of single phase mains power lines to NATO SDIP-27 B/C
- Designed for rapid deployment applications where hardwired connections are not practical
- Simple mechanical and electrical installation

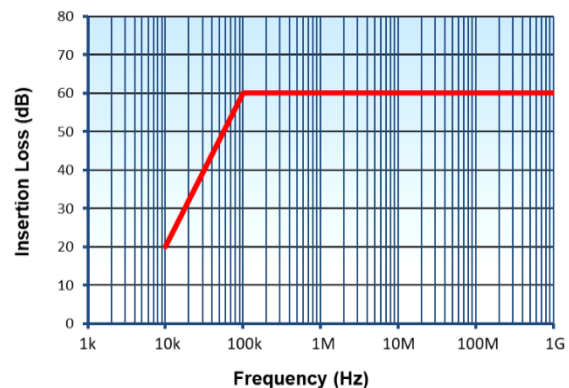


Features

- 15A NEMA 5-15P Type B 2P+E plug input & NEMA 5-15R Type B 2P+E socket outlets
- Designed to AV/ICT equipment safety standard EN 62368-1
- Fully 360° screened input cable to maintain red/black separation to filter
- Low Smoke Zero Halogen (LSZH) rated cabling for use in sensitive areas
- Self-healing metallised plastic film capacitor dielectric material for fail-safe transient handling and reliability
- Rugged ferromagnetic stainless steel enclosure
- Designed to be downline tolerable to a personnel protection RCCB
- CE & RoHS compliant

Insertion Loss Performance

Typical asymmetric attenuation of 60dB from 100kHz to 1GHz shown as measured in a 50Ω system, at all loading conditions, in accordance with CISPR-17.





Technical Specification

Rated Voltage	250VAC (SP&N) 50/60Hz
Test Voltage (Line – Earth)	1250VDC
(Line – Line)	1250VDC
Rated Current, I _R at 50°C	15A
Max. Earth Leakage Current	less than 3.5mA
Max. Temperature Rise on Full Load	25°C
Operating Temperature Range	-25°C to 50°C
Insertion Loss (50Ω, asymmetric)	60dB from 100 kHz to 1GHz (see graph)
Discharge Time	Less than 1s to below 34V (filter incorporates discharge resistors)

North America Product Range

Filters are available with Type B NEMA 5-15P approved 3 pin plugs on a 2-metre length of screened cable. Different output options include either 1, 2 or 4 socket outlets or a 2 metre length of screened cable with unterminated ends that can be incorporated into an electrical system.

NA Product Range					
Rated Current	Input 2m length of screened cable with suitably rated plug	Outlet			
		Single Outlet 1 x NEMA WEATHERPROOF SOCKET (5-15R), 2 POLE-3 WIRE GROUNDING (2P+E)	Dual Outlet 2 x NEMA WEATHERPROOF SOCKET (5-15R), 2 POLE-3 WIRE GROUNDING (2P+E)	Quad Outlet 4 x NEMA WEATHERPROOF SOCKET (5-15R), 2 POLE-3 WIRE GROUNDING (2P+E)	In-Line 2m length of unterminated screened 2P+E cable
15A	NEMA 5-15P Type B 2 Pole, 3 Wire with Grounding*	DS30833NA	DS30834NA	DS30835NA	DS30836NA

*The user must ensure adequate fuse protection at distribution board level/Circuit breakers must be used following North American Standards for installation and wiring. All plugs do not carry internal fuses as per NEMA, UL, NEC and CEC guidelines.





Mechanical Details

Enclosure Material	Ferromagnetic stainless steel
Finish	Natural, dressed
Capacitor Potting Compound	Epoxy resin meeting UL94 V-0 flammability rating
Earth Connection	Via input termination earth pin
Socket outlet	Covered outlet (IP54 rating when covered)
Marking	Self-adhesive labels

Installation

Although the filter does not need to be mounted to a solid surface, it is provided with a mounting option and where possible it should be fixed securely with maximum distance between the filter and the User's device. The input screened cable and any equipment cables on the filter output should be maximally separated from each other to maintain red/black cable separation. Please consult the MPE TEMPEST Pluggable Filters Installation and Maintenance Guide Application Note for further information.

Safety

Relevant safety standards have been adhered to in the design and manufacture of this product. The filter must be solidly and permanently earthed to allow safe discharge of all internal capacitors - The earth connection of the input plug must be present and must not be interfered with. The User should ensure they do not overload the filter over the load limit stat