JRE PEM-1

Filtered Power Entry Module

Clean RF-filtered AC mains power inside the chamber — run your device under test on wall power without opening a hole in the shielding.

Standard IEC 60320 connectors in a machined aluminum housing

AT A GLANCE

- **Standard IEC 60320 C13/C14 connectors** — swap cordsets to operate worldwide on any local mains
- **120/240 VAC, up to 10 A** (about 1,200 W at 120 VAC) — ample for any benchtop test load
- **Multi-element L-network filtering** on each AC line: series broadband ferrite chokes feeding a feedthrough capacitor that shunts line-to-chassis
- **Feedthrough construction holds performance into the GHz range**, where an ordinary leaded capacitor goes inductive and quits working
- **~80 dB** conducted attenuation, 30 MHz to over 6 GHz
- **Low earth leakage** — about 136 µA at 120 VAC/60 Hz and 226 µA at 240 VAC/50 Hz, well within standard touch-current limits
- Integral **MOV surge clamp** above ~480 VAC; every capacitor hipot tested at 750 VAC and the finished module again at 700 VAC

DESCRIPTION

The JRE PEM-1 is the simplest way to get AC power inside a sealed test chamber. It delivers clean, RF-filtered mains power to equipment under test without compromising the enclosure's shielding, using standard IEC 60320 connectors so a simple cordset swap takes you to any mains standard in the world.

Order it with a matching JRE outlet strip and installation is fully turnkey — we wire a mating C14 plug onto the strip, plug it into the PEM-1 and mount the strip to the inside wall of your enclosure. No adapter cords, no field wiring; run your local power cord to the wall outlet and you are live. Ordered on its own, the PEM-1 ships with a mating C13 cord connector for the inside of the chamber.

Reliable shielding starts at the mounting. The PEM-1 secures to the enclosure wall with a ring of 4-40 screws, drawing the flange flat and tight around its entire perimeter — unlike single-nut designs, which never seat reliably flat and work loose over time. Every specification here is measured with the module installed in an enclosure, and it holds that performance however many times the connector is mated or the module gets bumped on the bench.

RF PERFORMANCE

Conducted attenuation	**~80 dB**
Frequency range	**30 MHz – 6 GHz+**
Isolation, in test system	**80 dB**

AC POWER

Voltage	**120 / 240 VAC**
Frequency	**50 / 60 Hz**
Current	**10 A max**
Surge protection	**MOV, ~480 VAC**

SAFETY & LEAKAGE

Earth leakage, 120 VAC 60 Hz	**~136 µA**
Earth leakage, 240 VAC 50 Hz	**~226 µA**
Capacitor hipot	**750 VAC**
Module hipot	**700 VAC**

CONNECTORS & DIMENSIONS

Outside	**IEC 60320 C14 male**
Inside	**IEC 60320 C13 female**
Size	**3" H × 2.25" W × 1.6" D**
	76 × 57 × 41 mm
Mounting screws	**4-40, included**
Clearance hole	**0.1285" (#30 / 3.3 mm)**

Drilling template included for standalone installation.

COMPATIBILITY

Works with any JRE RF shielded test enclosure or screen room. Pair it with a JRE internal outlet strip for a turnkey installation. JRE's enclosure line provides superior RF isolation from 10 MHz to over 6 GHz, covering the full range of commercial, private and government communications systems.

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