

Features

- Frequency Range: 5 kHz to 1 MHz
- Designed for Tempest Testing
- Dual-Conductor Network with Universal Power Receptacle to accept any EUT Plug
- 10 Amps Current Handling Capability
- Three-Year Warranty



Description

The LIP-120 Line Impedance Stabilization Network (LISN) is designed specifically for Tempest testing. It provides the necessary measurement platform for performing power line conducted emissions compliance testing.

The LIP-120 performs each of the following functions during the measurement:

- provides a defined, stable impedance across the measurement frequency range;
- isolates the EUT and measurement circuit from the power source, thereby minimizing its influence on the measurements;
- provides isolation between the power lines to minimize cross-coupling, and;
- couples the disturbance voltages to the coaxial measurement port for connection to the measuring instrument.

This LISN uses air-core inductors to prevent saturation and permeability variation. Its mounting plate is left unpainted in order to facilitate connection to earth ground in its installation, which is essential due to high leakage current.

The LIP-120 is a dual-conductor network capable of handling currents up to 10 amperes per line. The EUT power port is fitted with a universal, multi-configuration receptacle, which accommodates almost any EUT plug without the need for adapters. The power input port is fitted with a standard IEC C13 receptacle.

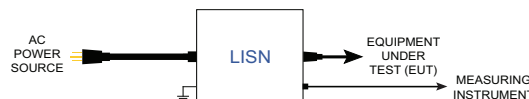
As shown in the diagrams on the right, the LIP-120 can be utilized with any type of power system, including DC, single-phase, split-phase and three-phase systems (using two LIP-120 LISNs).

Calibration

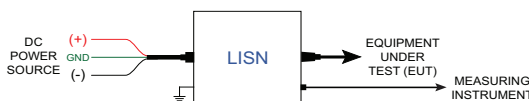
All Com-Power LISNs are individually calibrated in compliance with their relevant requirements. Impedance, Insertion Loss, Isolation (mains port to EUT port, as well as line to line) data is supplied with each LIP-120 unit, along with the certificate of calibration. Recognized ISO 17025 accredited calibration is also available upon request.

Typical Connection Diagrams

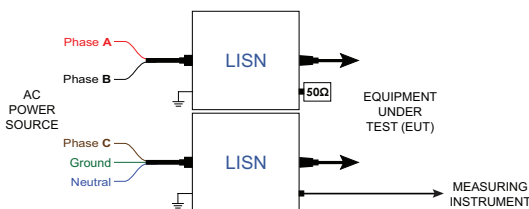
Single-phase or split-phase power system connections:



DC power system connections:



3-phase power system connections using (2) LIP-120 LISNs:

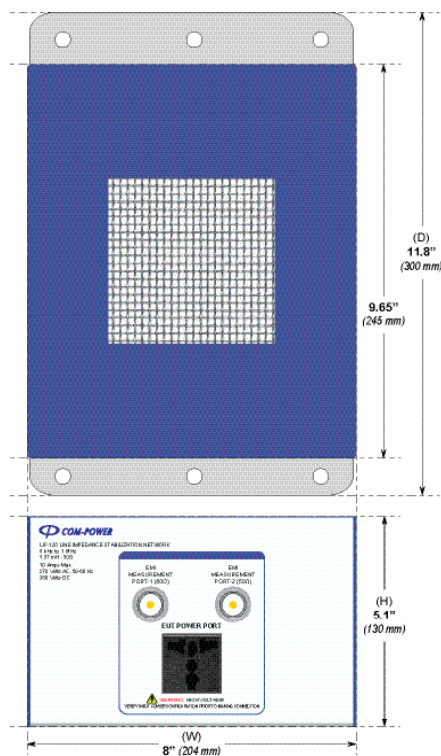


Specifications

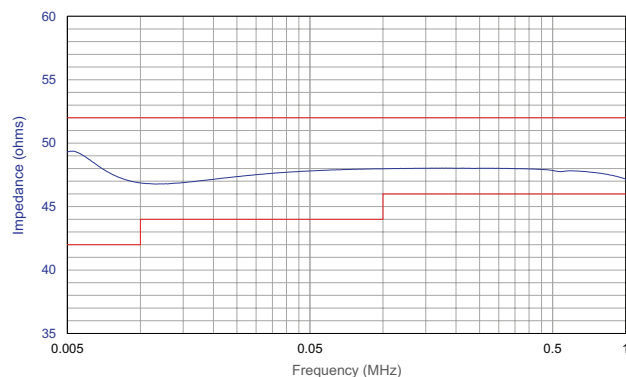
All values are typical, unless specified.
All specifications are subject to change without notice.

GENERAL	
Product Description	Line Impedance Stabilization Network (LISN)
Application	Power Line Conducted Emissions Tests
Standard(s)	Tempest
Type	50Ω / 1.37 mH
Frequency Range	5 kHz to 1 MHz
Impedance	[see graph below]
Insertion Loss	< 2 dB
Isolation (Mains Port to EUT Port)	>55 dB @ 5 kHz to >75 dB @ 1 MHz
Isolation (Between Lines)	>30 dB @ 5 kHz to >55 dB @ 1 MHz
ELECTRICAL	
Max. Voltage Rating (Line to Ground)	270 Volts _{AC(rms)} (50-60 Hz), 380 Volts _{DC}
Max. Current Rating	10 Amperes (continuous)
INPUT/OUTPUT CONNECTORS	
Mains Power Input Port	IEC C13 Receptacle
EUT Power Output Port	Universal Multi-Configuration AC Receptacle
RF Measurement Ports	N-Type (female)
MECHANICAL	
Dimensions (H)x(W)x(D)	5.1" x 8" x 11.8" (130 x 204 x 300 mm)
Weight	8.5 lbs (3.9 kg)
ENVIRONMENTAL	
Operating Temperature	40°F to 104°F (5°C to 40°C)

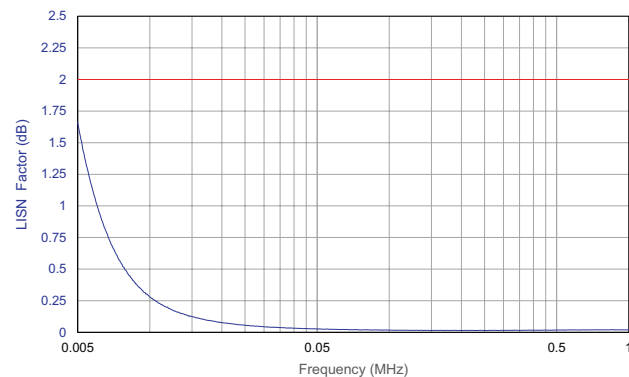
Product Dimensions



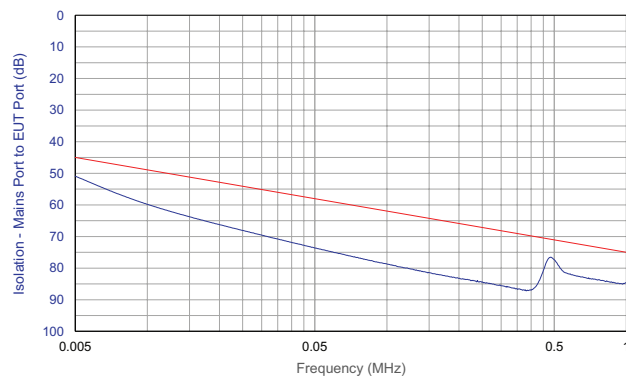
Typical Impedance Data



Typical Insertion Loss Data



Typical Isolation Data (Mains Port to EUT Port)



Typical Isolation Data (Between Lines)

