

## Features

Frequency range of 10 kHz to 400 MHz

Fully compliant with DO-160/ MIL-STD 461F/ CISPR 25/ CISPR 16-1-2

100 Amp<sub>(AC)</sub> (forced air cooling)

“Air-core” inductors to prevent saturation

Individual Calibration Included

Three-Year Warranty

## Description

The LI-3100 Line Impedance Stabilization Network (LISN) provides the necessary measurement platform for performing power line conducted emissions compliance testing as required by most worldwide standards for commercial products. The LI-3100 is a 5  $\mu$ H LISN compliant with RTCA DO-160, MIL-STD 461F, CISPR 25 and CISPR 16-1-2.

The LISN provides defined stable impedance and isolates the EUT from power source influences, thereby providing accurate and repeatable results.

The LI-3100 includes one pair of, separately housed, single-conductor networks, to be installed in series with each current-carrying conductor in a single-phase, dual-phase or DC power system. A second LI-3100 pair can be used to accommodate 3-phase power systems (Wye or Delta configurations).

The LI-3100 is equipped with Superior Electric SUPERCON® shrouded sockets at the mains (power input) and EUT (power output) ports. The matching color-coded plugs for connection to the mains and EUT wiring are included.

This LISN uses air-core inductors to prevent saturation and permeability variation. The mounting plate of the LI-3100 is left unpainted in order to facilitate connection to earth ground in its installation, which is essential due to high leakage current.



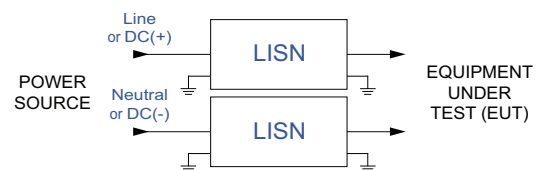
## Calibration

All LI-3100 LISNs are individually calibrated in compliance with the relevant requirements of RTCA DO-160, MIL-STD 461F, CISPR 25 and CISPR 16-1-2.

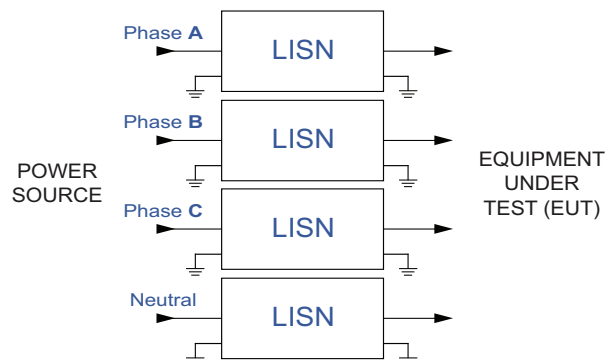
Impedance, Phase and Insertion Loss data is supplied with each unit, along with the calibration certificate.

## Typical Connection Diagrams

### Single Phase connection with one set of LISN



### Three Phase connection with two sets of LISNs

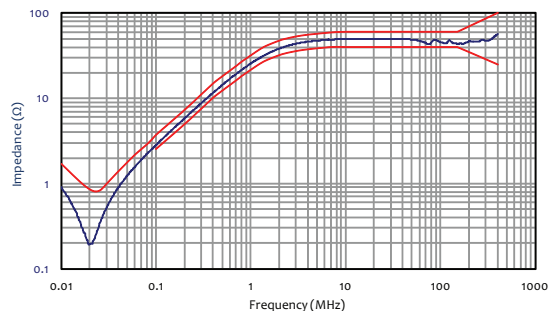


## Application

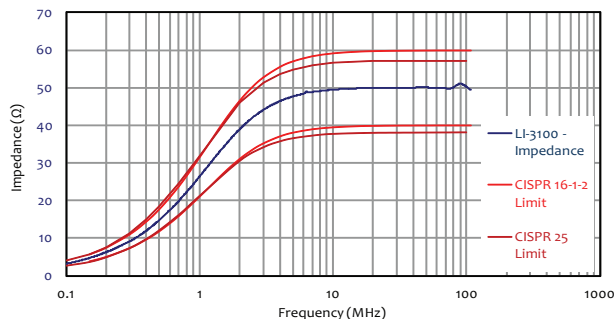
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|------------------------------------|--|
| <b>Product Name</b>                | Line Impedance Stabilization Network (LISN)              |
| <b>Specification</b>               | RTCA DO-160 / MIL-STD 461F / CISPR 25 / CISPR 16-1-2     |
| <b>Application</b>                 | Power line conducted emissions tests                     |
| <b>Frequency Range</b>             | 10 kHz to 400 MHz  |
| <b>RF Connector</b>                | 50Ω N-type (female)                                      |
| <b>Current Rating</b>              | 100 Amperes <sub>(AC)</sub> , 50 Amperes <sub>(DC)</sub> |
| <b>Voltage Rating</b>              | 480 VAC (Line to Ground), 676 VDC                        |
| <b>Inductors</b>                   | 5 μH (air-core)  |
| <b>Mains &amp; EUT Connections</b> | Superior Electric SUPERCON® shrouded sockets             |
| <b>Dimensions (each network)</b>   | 15.4 x 7 x 6.6 inches / 39.1 x 17.7 x 16.7 cm            |
| <b>Weight (each network)</b>       | 13 lbs. / 5.9 kg   |
| <b>Insertion Loss</b>              | < 0.65 dB (100 kHz to 108 MHz)                           |

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

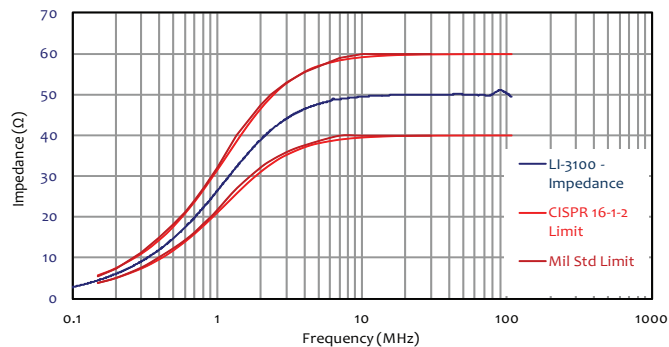
### Impedance - DO-160 Limits



### Impedance - CISPR 16 & 25 Limits



### Impedance - Mil Std 461F & CISPR 16 Limits



### Phase - CISPR 16 Limits

