

# LIZN

## 16-A SINGLE-PHASE DUAL-PORT LINE IMPEDANCE STABILIZATION NETWORK



**LIZN** is a new **Line Impedance Stabilization Network** fully compliant to **CISPR 16-1-2**

that facilitates the simultaneous measurement in both lines and the extraction of **common- and differential-mode** conducted emissions

LIZN is the new EMZER's 16-A single-phase dual-port V-network Line Impedance Stabilization Network (LISN) that has been optimally designed and manufactured to be **compliant to CISPR 16-1-2** International Standard for the measurements of the conducted electromagnetic interference.

The **LIZN impedance is  $(50\mu\text{H}+5\Omega)//50\Omega$**  and can be operated in the frequency range from 9 kHz to 30 MHz. An artificial hand connector is provided at the front panel with an impedance of  $510\Omega + 220\text{pF}$  (as described in CISPR 16-1-2), along with several ground connectors in both front and rear panels (including a large grounding bar) to facilitate its assembly to the complex EMC-test setup. The instrument is equipped with a **high-performance 250- $\mu\text{H}$  inductor** that provides an excellent decoupling between the device under test and the mains, filtering any external interference voltage. The

internal circuit is completed with a 5-kHz high-pass filter that provides a flat response above the 9 kHz.

The LIZN can be used for AC and DC measurements. The two N-type connectors provided in the front panel **allow the simultaneous measurement of line and neutral conducted emissions**, which facilitates the obtention of the common-mode and differential-mode (modal) conducted emissions. Modal emission measurements, that can be performed using a two-port oscilloscope or a vector analyser, are fundamental to know the dominant mode and to implement the suitable power-line filter accordingly, **using fewer components and getting a cheaper design.**

### Technical Specifications

<b>Standard</b>	<b>Fully compliant to CISPR 16-1-2 and MIL-STD-461 standards</b>
<b>Frequency range</b>	<b>9 kHz – 30 MHz</b>
<b>AMN Impedance</b>	<b>50 <math>\Omega</math>    (50 <math>\mu</math>H + 5 <math>\Omega</math>)</b>
<b>Network Impedance</b>	<b>50 <math>\Omega</math></b>
<b>Pre-filter Choke</b>	<b>250 <math>\mu</math>H</b>
<b>Maximum Continuous Current</b>	<b>16 A @ 250 V<sub>AC</sub></b>
<b>Maximum Voltage</b>	<b>300 V<sub>AC</sub> / 400 V<sub>DC</sub></b>
<b>Operating Frequency</b>	<b>DC to 60 Hz</b>
<b>RF connector type</b>	<b>2 ports N female</b>
<b>Artificial hand / connector type</b>	<b>510 <math>\Omega</math> + 220 pF / 4 mm banana</b>
<b>Connector for EUT/mains</b>	<b>Schuko socket (Type F)/IEC C20</b>

### Physical Specifications

<b>Height</b>	<b>195 mm</b>
<b>Width</b>	<b>252 mm</b>
<b>Depth</b>	<b>438 mm</b>
<b>Weight</b>	<b>7.5 kg</b>

## Related Products

### EMSCOPE

- Peak, quasi-peak and average detectors fully compliant with CISPR 16.
- Web-based remote control via optical fibre
- Measurements of line, neutral, common-mode and differential-mode conducted emissions



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