

## Line Impedance Stabilization Networks

LISNs for measurement of conducted electromagnetic interference from 9kHz to 30MHz

Designed and manufactured compliant to CISPR 16-1-2 International Standard for measurements of conducted electromagnetic interference in accordance with requirements of EMI International, European and Product standards, 9kHz to 30MHz frequency range, DC Measurements, DC to 63Hz supplies, manual and remote control.

LISNs are Multi-Line Impedance Stabilization V-Networks,  $(50\mu\text{H}+5\Omega)/50\Omega$ , completed with artificial hand as well as PE simulating network, built-in pulse limiter and 10dB attenuator.

LISNs can also be used in DC conducted emission measurements.



**AFJ LS16C/10** ♦ 16A Single Phase V-Network

The construction uses air coils in the current path in order to avoid saturation effects with high current strengths.

The continuous high current load-bearing capacity is ensured by the use of large wire cross-sections for the coils.

The compact form of construction, despite the high current-bearing capacity, makes easy use of the LISNs for the measurement of high consumer possible. In this way, measurements of mains-borne interferences can be carried out under conditions corresponding to practice.



**AFJ LT32C/10** ♦ 32A Three Phases V-Network

**Easy  
EMC**

## LISNs

The CONDUCTOR UNDER TEST ( L1, N or L1, L2, L3, N) can be selected in manual operation via the relevant button on the LISNs front panel.

In automatic operation, such selection is performed via remote control software of:

- ◆ AFJ FFT 3010 and R3030 EMI Test Receivers
- ◆ AFJ DDA55 Click Analyser

Artificial hand, simulating  $510\Omega + 220\text{pF}$  impedance in accordance with CISPR 16-1-2 requirements, is provided via a specific outlet on the front panel of the LISNs.

Whenever the EUT dimensions are such that the protective earth conductor is long enough to show a significant impedance or be close to  $\frac{1}{4}$  of a possible wavelength, or the enclosure has poor conductivity, the test will be performed using the built-in artificial protective earth.

LISNs are manufactured with built-in pulse limiter and 10dB attenuator and internal current meter to measure the Switching Operations and EUT absorption current when used in conjunction of AFJ DDA55 Click Analyzer as per CISPR 14-1 requirements.



| TECHNICAL SPECIFICATIONS                      |  |                       |
|---|--|-----------------------|
|   | LS16C/10                                 | LT32C/10              |
| <b>Design:</b>                                | Fully compliant to CISPR 16-1-2 standard |                       |
| <b>Frequency range:</b>                       | 9kHz±30MHz                               |                       |
| <b>Impedance:</b>                             | $(50\mu\text{H}+5\Omega) // 50\Omega$    |                       |
| <b>Rated voltage load:</b>                    | 230Vac rms                               | 230Vac rms/450Vac rms |
| <b>Number of phases:</b>                      | 1 + N                                    | 3 + N                 |
| <b>Rated current load:</b>                    | 2 x 16A                                  | 4 x 32A               |
| <b>Max permitted frequency:</b>               | DC to 63Hz supplies                      |                       |
| <b>Output impedance:</b>                      | 50Ω                                      |                       |
| <b>Connector:</b>                             | BNC female                               |                       |
| <b>Artificial hand:</b>                       | $510\Omega + 220\text{pF}$               |                       |
| <b>Protective earth:</b>                      | $50\mu\text{H} // 50\Omega$              |                       |
| <b>Built-in pulse limiter and attenuator:</b> | 10dB                                     |                       |
| <b>Operating temperature:</b>                 | 0 to 45°C                                |                       |
| <b>Storage temperature:</b>                   | -20° to 70°C                             |                       |
| <b>Size (WxDxH):</b>                          | 350 x 520 x 200mm                        | 480 x 550 x 280mm     |
| <b>Weight:</b>                                | 11kg                                     | 28kg                  |

*Subject to change without notice.*

### RELATED PRODUCTS

#### AFJ EMI RECEIVERS

FFT 3010 f=9kHz±30MHz

R3030 f=9kHz±300MHz

#### AFJ CLICK ANALYSER

DDA55

