

TBLVHF-B Balanced VHF Line Impedance Stabilization Network

1 Description:

The model TBLVHF-B, Balanced Very High Frequency Impedance Stabilization Network (Balanced VHF LISN) is an artificial mains network providing a defined RF termination impedance for AC mains cables supplying EUTs in radiated emission test setups. The LISN is suitable for EUTs with or without protective earth and provides defined, symmetrical line impedances, resulting in a balanced load.



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2 Features

- Designed for mains supplied EUTs with or without protective Earth
- Frequency range: 30-300 MHz
- Maximum supply voltage: 250V AC
- Maximum supply current: 16 A rms
- Defined termination impedance
- > 40 dB isolation
- Country specific mains sockets
- Compact design
- CISPR 16-1-4 conformant

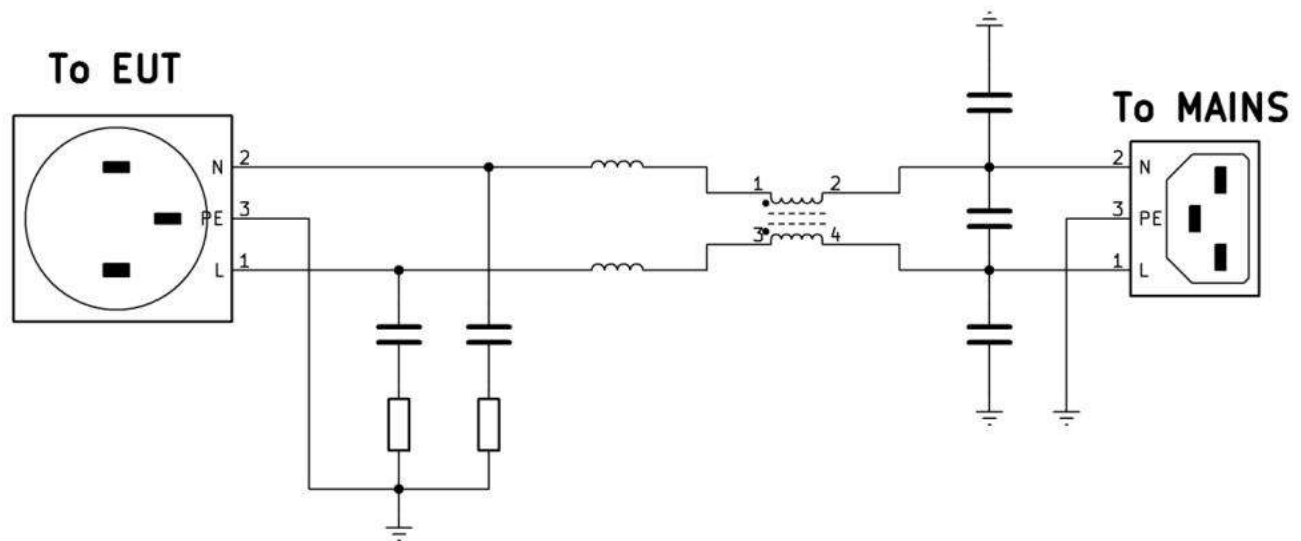
3 Applications

Radiated emission measurement setups for mains powered EUTs

Controlled differential-mode to common-mode conversion

Isolating systems from high-frequency noise of the mains side

4 Informative schematic

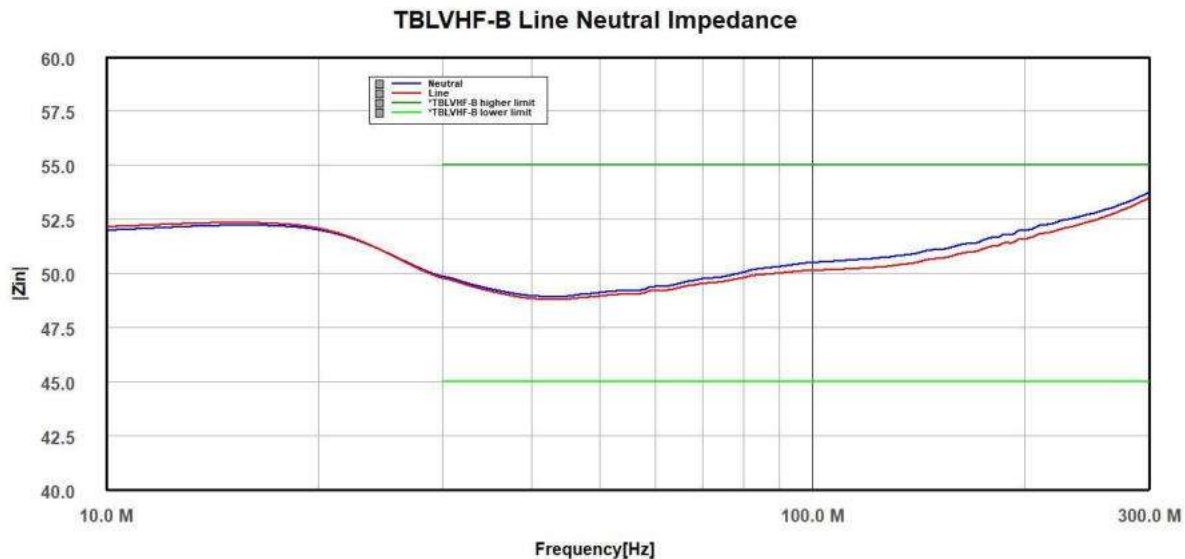


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5 Specifications

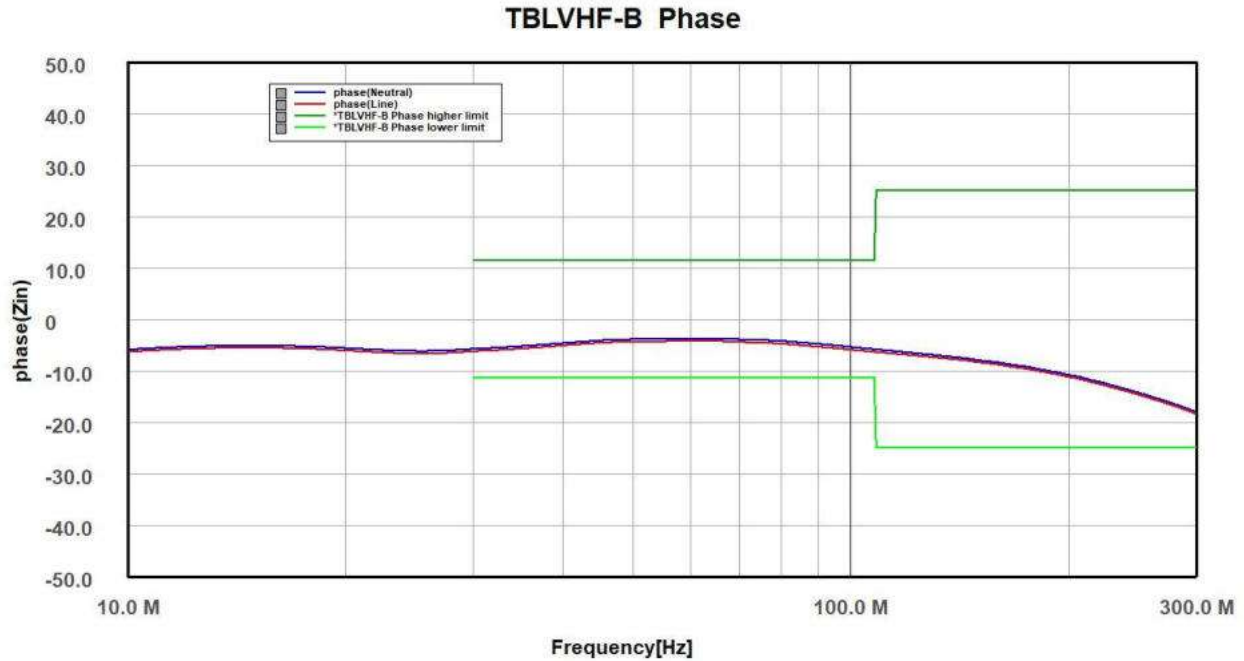
Balanced VHF LISN	
Frequency Range	30 – 300 MHz
Neutral-line Impedance (ref GND)	50 Ω +/- 10 %
Live-line Impedance (ref GND)	50 Ω +/- 10 %
Neutral-line Impedance (ref GND)	50 Ω +/- 10 %
Phase; 30 MHz to 108 MHz	0 $\pm$ 11.5°
Phase; 108 MHz to 300 MHz	0 $\pm$ 25.0°
Isolation	>40 dB
Maximum AC Voltage	250 VAC, 50/60 Hz
Maximum AC Voltage	250 VAC, 50/60 Hz
Maximum Current	16 A RMS
Power Line Frequency	DC to 400 Hz
Output Socket	Schuko,US,UK & AU....etc
Input Connector	IEC 60320 C19
Dimensions	W x H x L - 15 x 15 x 30 cm
Weight	2 kg
Operating Temperature Range	-20 °C to +40 °C
Relative Humidity	45%–75%

5.1 Impedance

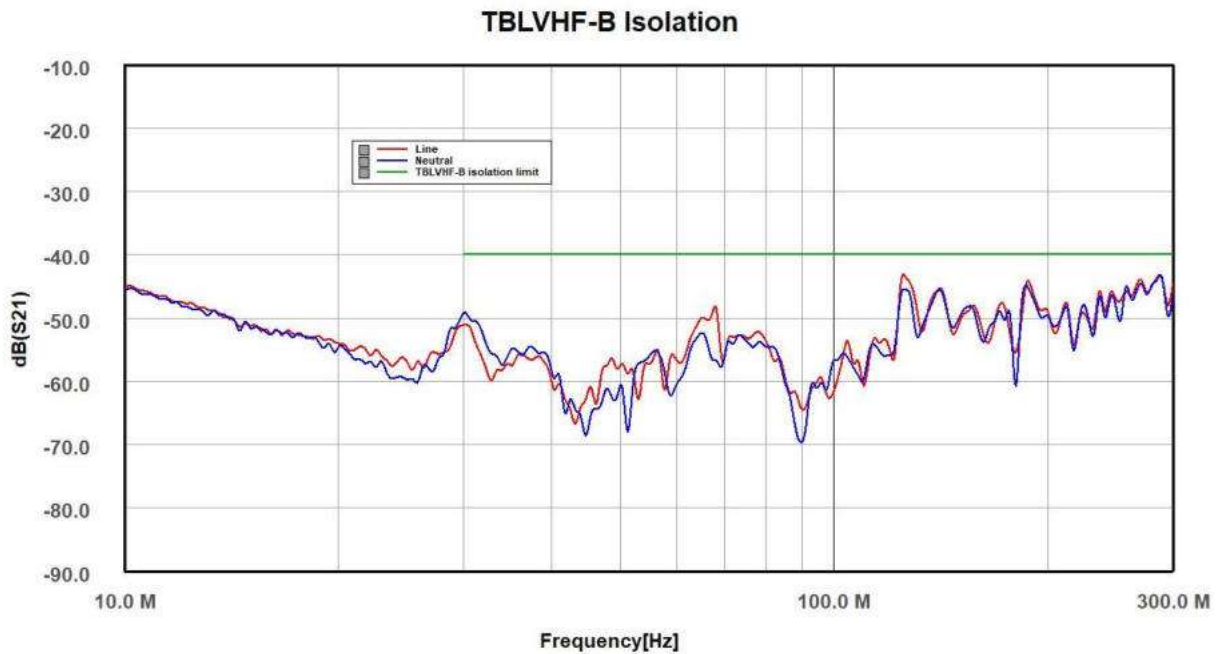


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5.2 Phase

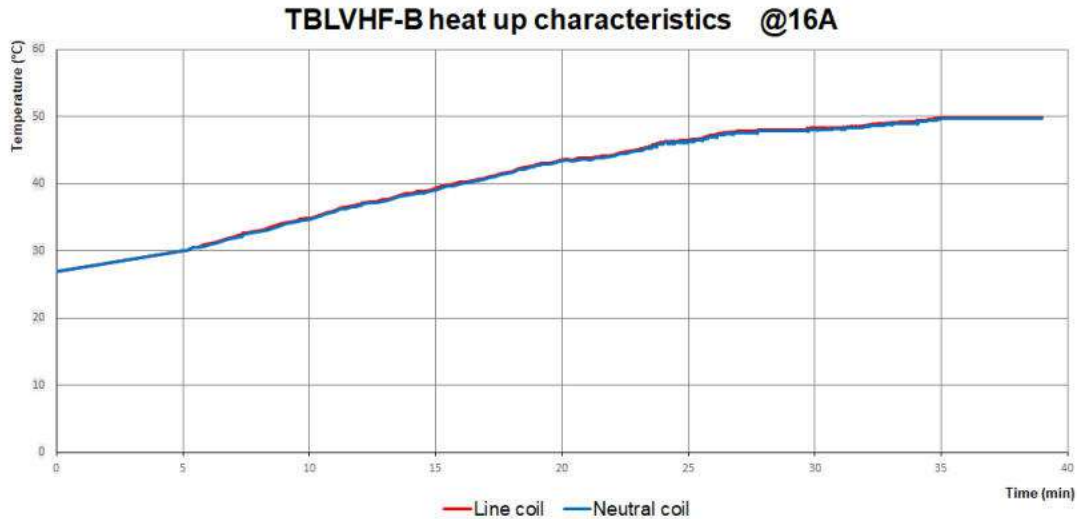


5.3 Isolation



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5.4 Thermal characteristics



6 Ordering Information

Part Number	Description
TBLVHF-B-EU	VHF LISN with Schuko socket (CE7/3, 16 A), 16 A cold appliance cable
TBLVHF-B-US	VHF LISN with US socket (NEMA 5-15, grounded, type B, 15A), 15A cold appliance cable
TBLVHF-B-AU	VHF LISN with Australian socket (AS/NZS 3112:201, 15A), 15A cold appliance cable
TBLVHF-B-UK	VHF LISN with English socket (BS1363, 13A), 13 A cold appliance cable
TBLVHF-B-XX	Any other socket requirements upon customer request will have 3-4 weeks lead time

TBLVHF-B Accessories :

Part Number	Description
TBLVHF-B-CAL-EU	Calibration adapters SMA-F-CE7/3 Neutral + SMA-F-CE7/3 Line
TBLVHF-B-CAL-UK	Calibration adapters SMA-F- BS1363 Neutral + SMA-F- BS1363 Line
TBLVHF-B-CAL-US	Calibration adapters SMA-F-NEMA 5-15 Neutral + SMA-F- NEMA 5-15 Line
TBLVHF-B-CAL-AU	Calibration adapters SMA-F-AS/NZS 3112:201 Neutral + SMA-F-AS/NZS 3112:201 Line
TBLVHF-B-CAL-XX	Calibration adapters for specific country

7 History

Version	Date	Author	Changes
V1.0	25.07.2025	Mayerhofer	Creation of the document