NNB 51
LINE IMPEDANCE STABILIZATION NETWORK DUAL-LINE-V-LISN

- **Dual-line-V-LISN**
- **Compliant to CISPR 16-1-2, MIL-STD-461, FCC Part 15, ANSI C63.4**
- **Current up to 16 Amps**
- **Frequency range 9 kHz to 30 MHz**
- **Hand and remote operated**
- **Massive grounding bars**

Application

Line impedance stabilization network (LISN) such as the NNB 51 are used to measure distortion signals on the mains cord of an electrical equipment under test (EUT). The distortion signals are usually generated or picked up inside of the EUT and the mains cord acts as an antenna. European and international EMC regulations define maximum permissible signal levels and frequency bands for such distortion signals.

The distortion signal to be measured is available on a coaxial N-connector that is mounted on the front panel of the NNB 51. For the actual measurement of the distortion signals a measuring receiver can be used. The V-network is part of a complex EMC-test setup that also has been standardized in CISPR 16-2-1 (EN 55016-2-1).

Power supply

The NNB 51 has two separate input connectors for the mains power of EUT and NNB that are located on the rear of the instrument.

Earth connection

The construction of the NNB 51 allows a massive connection to the shielded room wall. Left and right of the front are grounding bars. Additional are located a connection bolt and wing screw on the rear of the LISN.

Remote control connection

The NNB 51 has two built-in remote control circuits and can be controlled with EMI receivers from MEB / Schaffner / Teseq or Rohde & Schwarz.

Technical specifications

Standards applied:	CISPR 16-1-2, MIL-STD-461, FCC Part 15, ANSI C63.4
Frequency range:	9 kHz to 30 MHz
Attenuator (build-in):	10 dB
NNB operating voltage:	100 to 120 V / 220 to 240 V, 50 to 63 Hz
EUT operating voltage:	max. 250 V
EUT frequency:	DC to 63 Hz
EUT phase detection function (LED):	>48 V
EUT operating current:	max. 16 A
Line impedance:	50 Ω || (50 µH + 5 Ω)
Nominal output impedance:	50 Ω
RF connector type:	N female
Artificial hand / connector type:	510 Ω + 220 pF / 4 mm banana
Limiter:	approx. 136 dBµV typ., switchable
Artificial PE:	switchable

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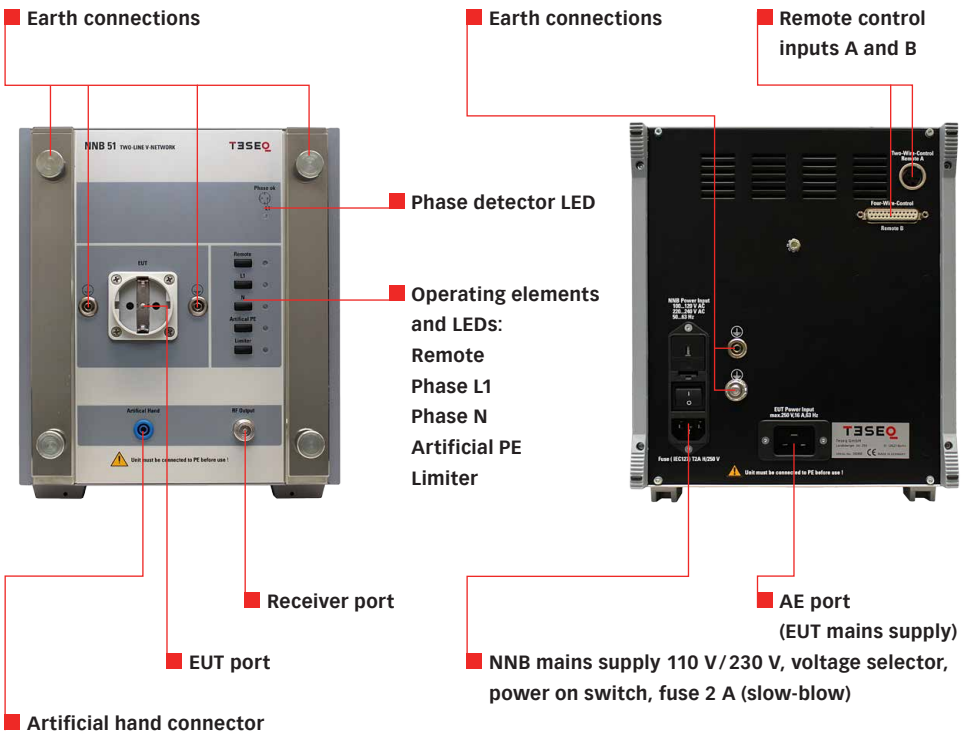
NNB 51 view to the grounding bars

Technical specifications, continued

Connector type for two wire remote control:	KFV 60
Connector type for four wire remote control:	D-sub 25 pins
Size (W x D x H) without mounting parts:	237 mm x 375 mm x 265 mm
Size (W x D x H):	270 mm x 418 mm x 275 mm
Weight:	approx. 12 kg

Model No. and options

Part number	Description
253550	NNB 51 Dual-line-V-LISN for 16 A
97-253550	NNB 5x-TC Traceable calibration (ISO17025) order only with new device
232080	LE 216 Control cable SCR 35xx/NNB xx
243134	LE 234 Control cable SMR 45xx/NNB xx



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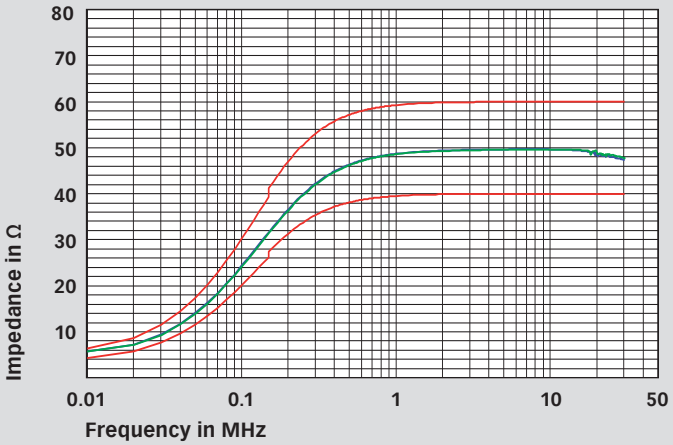
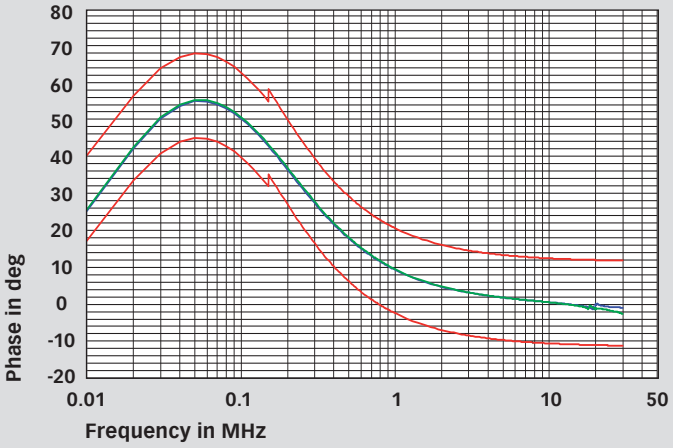
Typical impedance — L — N — Limit



Typical phase angle — L — N — Limit



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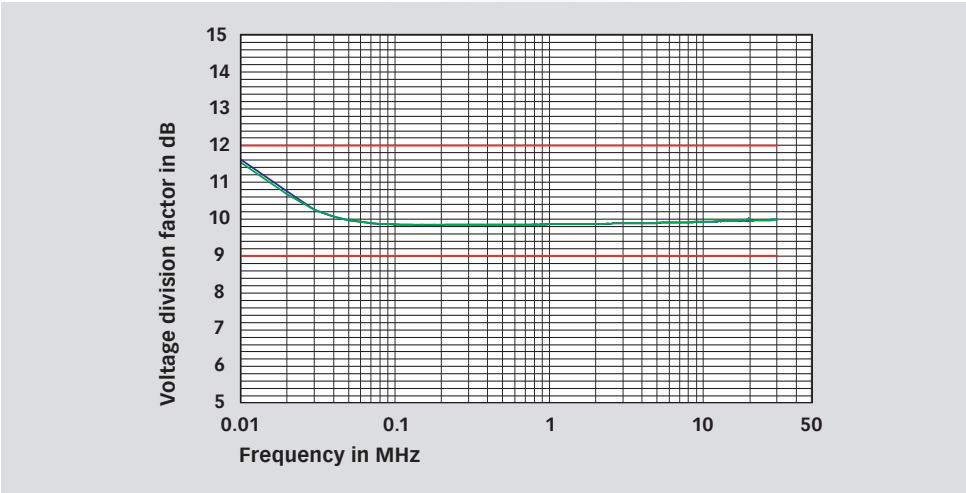
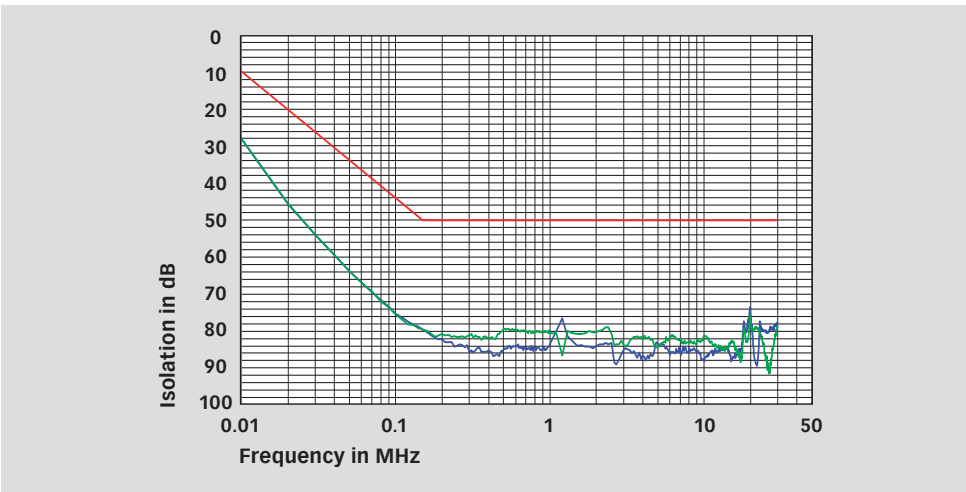
Typical voltage division factor — L — N — Limit



Typical isolation — L — N — Limit



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