ISN PLT-A

IMPEDEANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)

The ISN PLT-A is made for measurements on PLT devices which use one port for mains power supply and telecommunications (PLT port). It is conform with the requirements of EN 50561-1. Included in the delivery is the Coupling Unit (CU) as given in figure 3 of the standard.

Technical specifications

- For asymmetric disturbance measurements on PLT devices
- Frequency range 1.6 to 30 MHz
- LCL >55 dB
- Conform with EN 50561-1
- Supplied with Coupling Unit

Max. operating voltage: 250 VAC, 50 Hz, Mains L/N/PE
Max. operating current: 10 A
Test voltage: 1.5 kV AC, 2 s
Mains sockets EUT/AE: 4 mm, safety
RF sockets: BNC, 50 Ω
Frequency range: 1.6 MHz to 30 MHz
Common mode impedance: 25 Ω ±3 Ω
Phase angle: 0° ±25°
Differential mode impedance: 100 Ω ±10 Ω
Phase angle: 0° ±25°
Voltage division factor: 0 dB ±1 dB
Isolation (common mode): >55 dB
Insertion Loss – symmetric: <3 dB
LCL: >55 dB

Coupling Unit
Max. operating voltage: 250 VAC, 50 Hz, Mains L/N/PE
Max. operating current: 10 A
Mains sockets Coupling Unit: Schuko
Common mode decoupling attenuation *): >40 dB
Insertion Loss (differential mode) *): >40 dB

*) Parameters are only valid for a test setup with two identical AMNs like NNB 51 or NNB 52
All symmetrical parameters are only valid for a symmetrical impedance of 100 Ω

Mechanical specifications

Size (W x H x D) in mm: 185 x 100 x 100
Size of the base plate in mm: 235 x 100
Weight: approx. 1450 g
Size of the Coupling Unit (W x H x D) in mm: 95 x 63 x 85 (each box)
Cable length of the Coupling Unit: approx. 0.8 m
Weight of the Coupling Unit: approx. 260 g

Coupling Unit
Typical common mode impedance and phase angle (EUT)

Typical differential mode impedance and phase angle (EUT)
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Typical voltage division factor (EUT - $V_{\text{out}}$)

Typical isolation (AE - $V_{\text{out}}$)

Typical LCL (EUT)
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Typical insertion loss, symmetric (EUT – AE)

Coupling Unit: Typical common mode decoupling attenuation (isolation), typical insertion loss (differential mode)
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**FOR POWERLINE TELECOMMUNICATION (PLT)**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
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<tbody>
<tr>
<td>243783</td>
<td>ISN PLT-A</td>
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<tr>
<td></td>
<td>ISN for power line telecommunication for EN 50561-1, LCL ≥55 dB, with Coupling Unit in storage case</td>
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<tr>
<td>97-243784</td>
<td>ISN PLT-TC</td>
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<td>Traceable calibration (ISO17025), order only with the device</td>
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**Coupling Unit, top view**

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