



# CDN 117 COUPLING DECOUPLING NETWORK FOR UNSHIELDED, UNSYMMETRICAL INTERCONNECTION LINES



- Data line surge testing
- Easy to use bench top housing
- Conforms to IEC/EN 61000-4-5
- Complete set includes all accessories

Teseq's CDN 117 coupling-decoupling network enables convenient testing with surge pulses of 1.2/50  $\mu$ s on data, signal or peripheral lines, as specified in many product standards. The test method, severity levels, permissible reaction of the EUT and specification of the coupling networks are included in IEC 61000-4-5 Ed.3 Chapter 6.3.3.2.

The compact CDN 117 is a complete set of coupling elements consisting of:

- The decoupling network itself
- Interface cables to the surge generator
- A coupling device with a 0.5  $\mu$ F capacitor
- A coupling device with a spark gap device

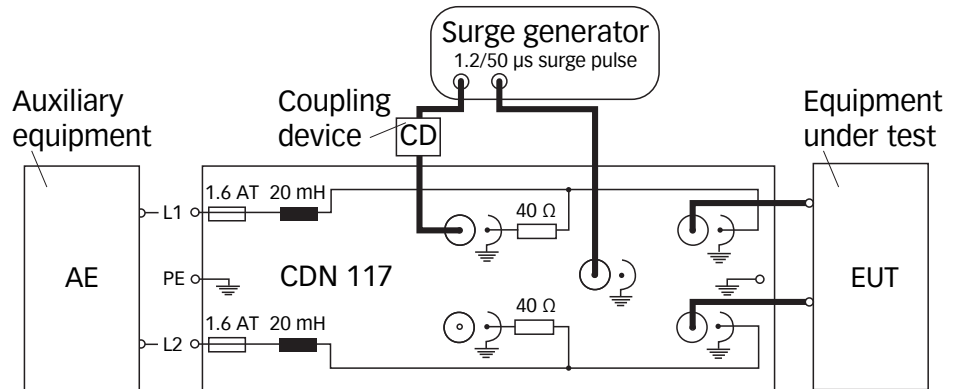
All coupling methods described in IEC/EN 61000-4-5 for unshielded unsymmetrical line pairs can be performed both in differential- and common mode coupling (line-to-line and line-to-ground).

The user can manually select coupling modes by connecting the surge generator's output to the appropriate input of the CDN 117.

Several CDN 117s can be arranged in parallel for applications in which more than two conductors must be decoupled.

The CDN 117 can be easily interfaced with the EUT and is designed as a bench top unit. It can be used with Teseq's NSG series or any industry standard surge generator with the appropriate connector adapter.

## Setup example for testing L1 against ground



# CDN 117

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### Technical specifications

Signal line:	
Max operating voltage:	AC 250 V DC 250 V
Max operating current:	1.5 A
Ohmic resistance per path:	<2.5 Ω
Decoupling chokes 1 kHz:	20 mH nominal
Transmission 3 dB BW:	800 Hz
Connectors:	4 mm safety banana
Pulse:	1.2/50 μs pulse
Max pulse voltage:	6.6 kV
Series resistor:	2 x 40 Ω, 6 W
Connectors:	Fischer 103
Coupling device:	INA 170: spark gap device, 90 V trip voltage INA 174A: capacitor 0.5 μF
Size (CDN 117, L x W x H):	300 mm x 55 mm x 80 mm
Weight:	approx. 2.1 kg

### Model No. and options

Part number	Description
400-189	CDN 117 2 channels coupling decoupling network set for 1.2/50 μs surge pulses on unsymmetrical data lines, for connection to NSG 2050 series
400-370	CDN 117-M 2 channels coupling decoupling network set for 1.2/50 μs surge pulses on unsymmetrical data lines, for connection to NSG 3000 series
97-400-189	CDN 117-TC Traceable calibration (ISO17025), order only with the device CDN 117, calibration recommended in conjunction with the surge generator
98-400-189	CDN 117-DAkKS DAkKS accredited calibration (ISO17025), order only with the device CDN 117, calibration recommended in conjunction with the surge generator

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