

# Pulse Coupling Networks

## CDN 131 / 133 / 135

- Units for single phase and three phase coupling
- Extended current / voltage range to 30A / 440Vac
- Combined surge / burst coupling

These external coupling networks extend the range of surge and burst generators to higher currents and voltages, three phase applications and system installations with a common EUT connection.

The basic models, CDN 131 for single phase and CDN 133 for three phase applications, precisely match the type 2050 test system with its range of surge generator modules.

A burst coupling option, CDN 151 for single phase or CDN 153 for three phase applications, can be fitted into the unit to provide higher current burst test possibilities for the System 2050.

These options also build a system solution with a single, common EUT connection when separate surge and burst generators are used.

The specifications of the EUT path are pushed to 30A per phase and a AC voltage of up to 440V (phase to phase). The decoupling inductors are designed to tolerate the high inrush currents often encountered in high power and three phase test installations. The couplers are entirely controlled by the pulse generator and perform their coupling modes under local control or under control of the Windows application program associated with the pulse generator.

Power to the EUT is internally controlled and can be switched on and off at any time by the operator or may be set under program control. The units fully comply with the relevant standards such as IEC 61000-4-5, ANSI-IEEE C 62.45, IEC 61000-4-4, etc. The coupling methods exceed the requirement of the standards and effectively allow for all possible combinations of differential couplings, common mode and line(s) to ground coupling combinations. Special attention has been paid to an overall safe operation.

An interlock circuit prevents high voltage pulses being generated as long as the protection line is not closed.

An overcurrent trip switch protects the EUT. Various connector panels are provided to ensure correct industrial wiring of the EUT.

### CDN 131

Single phase coupling network for surge type pulses with 240V/30A ac capability. An optional CDN 151 single phase burst coupling section can be built in.



### CDN 133

Three phase surge coupling network for EUT's up to 440V/30A per phase. The CDN 153 three phase burst coupling option extends the unit into a combined coupler with a single, common EUT interface.

### CDN 135

Special version to be used with the BEST<sup>plus</sup> and BEST<sup>emc</sup> generator. It includes three phase surge and burst coupling capabilities as a standard.

### Optional EUT connector panels

- INA 250 IEC 309 Adapter 3 x 32A (red)
- INA 251 IEC 309 Adapter 1 x 16A (blue)
- INA 252 Schuko Adapter 1 x 16A
- INA 253 Swiss Adapter 1 x 10A
- INA 254 France Adapter 1 x 16A
- INA 255 GB Adapter 1 x 13A
- INA 256 US/J Adapter 1 x 15A 115V

Technical Specifications	CDN 131	CDN 133	CDN 135
Instrument supply	115V / 230V ac nominal	115V / 230V ac nominal	(special unit for BEST <sup>plus</sup> / BEST <sup>emc</sup> ) 115V / 230V ac nominal
EUT supply	single phase	three phase	three phase
AC voltage	24 - 240V	24 - 440V (phase to phase)	24 - 440V (phase to phase)
DC voltage	1 - 50V	1 - 50V	1 - 50V
Current	25A continuous 30A for 30 mins	25A continuous 30A for 30 mins	25A continuous 30A for 30 mins
Coupling / decoupling elements	to IEC 61000-4-5	to IEC 61000-4-5	to IEC 61000-4-5
Coupling modes	differential / common mode / line to GND	all differential / all common mode / lines to GND	all differential / all common mode / lines to GND
Burst coupling option	optional	optional	standard
AC voltage	24 - 240V	24 - 440V (phase to phase)	24 - 440V (phase to phase)
DC voltage	1 - 50V	1 - 50V	1 - 50V
Current	25A continuous 30A for 30 mins	25A continuous 30A for 30 mins	25A continuous 30A for 30 mins
Coupling / decoupling elements	to IEC 61000-4-4	to IEC 61000-4-4	to IEC 61000-4-4
Coupling modes	lines to ref. GND all combinations of lines to ref. GND	lines to ref. GND all combinations of lines to ref. GND	lines to ref. GND all lines to ref. GND