



CDN 3043A

AUTOMATED 3-PHASE COUPLING / DECOUPLING NETWORK



- **Compliant with IEC 61000-4-4 & IEC 61000-4-5**
- **Fully automated burst, surge and Ring wave coupling**
- **Safety HV plugs and terminals**
- **Manual/programmable EUT power ON/OFF control**
- **Current range 0-32 A**
- **Output on frontside for external CDN for signal- and data lines**
- **Overload protection**
- **Low noise through thermos-regulated fans**

The **CDN 3043A** series are 3 phase coupling/decoupling networks designed to offer best price performance for use as extension to NSG 3040A multifunction generator series. With the NSG 3043A, the 1-phase NSG 3040A is enhanced to a cost-effective test system to cover anyone's need for best budget. The coupler is characterized by a high level of user comfort and common safety functions. All coupling status are clear indicated on the display of the NSG 3040A generator.

The **fully automated and IEC compliant** coupling networks fulfill the requirements for EUT currents up to 32 A in the surge standard IEC / EN 61000-4-5, as well as the EFT / Burst impulses as per IEC / EN 61000-4-4 (latest edition for both standards).

EUT power ON and OFF can be controlled manually from the NSG 3040 front panel. EUT power will also switch OFF automatically in case of overload by heat. Dedicated 4 mm banana safety EUT terminals allow direct and easy EUT connection, no specific adapter plugs are required.

High Voltage safety plugs are used to interconnect the high voltage pulse output from NSG 3040A multifunction generator to CDN input. The HV impulse output on the front side offers a connection to additional CDN's for Signal- and data lines.

The **CDN 3043A perform dynamic cooling**. Internal elements which warm up under load are equipped with thermal sensors. At standby or for lower EUT currents, when there is no need for cooling, the fans will turn at a very low speed, generating no noise. In case of intentional or unintentional overloading, there will be a point where even full speed cooling will no more be sufficient, at this moment the CDN 3043A will switch OFF EUT power through the built in EUT power contactor, and so avoid destruction of the instrument (risk of fire). The CDN 3040 control electronics will also send a message back to the NSG 3040A which will immediately stop the firing of pulses.

The **CDN 3043A is designed to cover the surge waveform** standard as per IEC 61000-4-5 from 0 to 32 A. and is able to conduct high inrush currents or peak loads.

The phase synchronization is taken from the phase L1 of the 3-phase coupling / decoupling network. This important feature guaranties a correct coupling especially in synchronous mode.

CDN 3043A is available in a 32 A version with range from 0 to 32 A.



CDN 3043A

3-PHASE COUPLING / DECOUPLING NETWORK

Parameter	Value
Three phase CDN	according to EN/IEC 61000-4-4 and EN/IEC 61000-4-5
Burst voltage	Up to 4800 V
Surge Voltage	Up to 4400 V
EUT supply	3 x 480 VAC rms, 32 A, 50 / 60 Hz
Dimension (W x H x D)	19" / 6 HU, 448 x 503 x 500 (W x H x D)
Weight	Approx. 45 kg
Interfaces	
sys.link	26 pin high density connector to control external devices
connector EUT supply	Safety banana plug, 4 mm, rated 32 A
connector to EUT	Safety banana plug, 4 mm, rated 32 A
Mains (control)	
Supply voltage	85 to 265 VAC, 50 / 60 Hz
Power	approx. 75 W, Standby: 100 mA
Fuses	115 V: 2 x 4 A slow blow, 230 V: 2 x 2 A slow blow
Safety	
Safety Standard	IEC/EN 61010
Security circuit	Control input (24 VDC)
Warning lamp	Floating contact (max. 60 V/2 A)
Environment	
Temperature	10 °C to 35 °C
Humidity	30 % to 75 %, non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)
Included Accessories	
1 BCC 350	HV coaxial cable 350 mm for Burst, SHV – SHV connectors
1 HVS	HV cable Banana – Banana, 0.5 m, 1 x red, 1 x black
1 SLC 500	Cable, 0.5 Meter, CDN 3043A to NSG 3040A
1 Power mains cable	Cable 2 m, for the coupler supply, country coded
Earth connection 0.3 m	1 brass bar including mounting parts, screw M4 x 10 mm
User manual	Delivered on USB memory stick
Calibration certificate	
Accessories	
PVF BKIT 1	Calibration set for Burst/EFT.
MD 210	Differential HV probe 7 kV
MD 300	Current probe 5 kA

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