Power Line Coupling/Decoupling Network

CDN-5432H Series【Introduction】

The CDN-5432H series coupling/decoupling network is a product with a smaller volume, higher integration, and higher test voltage compared to similar products in our company. When paired with the Lioncel combined burst and surge generator, it realizes automatic interference injection functionality. Its performance meets the calibration requirements for output waveform specified in the IEC 61000-4-5 Ed.3 and IEC 61000-4-4 standards.

Compliance Standards

IEC 61000-4-4 IEC 61000-4-4 Ed.3/Ed.2 EN 61000-4-4 GB/T 17626.4 IEC 61000-4-5 Ed.3 EN 610

Application Fields

Industrial equipment, power meters, automotive electronics, medical devices, lighting fixtures, comm unication transmission equipment, audio-visual equipment, low-voltage electrical appliances, electr onic components, electric tools, information technology equipment, railway transportation, aerospac e electrical appliances, instrumentation, and high-voltage new energy products.

Technical Features

- Automatic coupling/decoupling network with switchable common-mode and differential-mode testing; the common-mode to differential-mode ratio can be set to complete all tests with a single setting;
- External coupling network with sufficiently small volume and high integration for the power supply capa city of the tested device of the same specification, meeting the calibration requirements of internationa l standards;
- The power supply capacity of the tested device can reach AC 690 V/32 A, DC 1000 V/32 A;
- Real-time display of interference types and test circuits for easy observation and recording of real-time test status;
- Surge input can reach 7 kV, and pulse burst input can reach 7 kV;
- Emergency stop function for the test circuit.

Parameter List

Specification	CDN-5432H-32AC	CDN-5432H-32DC
Applicable Interference Types	Electrical Fast Transients Immunity, Lightning Surge Immunity	
Coupling/Decoupling Parameters for EFT		

Applicable Interference Voltage Polarity	Positive/Negative/Automatic Alternation between Positive and Negative
Applicable Interference Voltage Value	100 V ~ 7000 V±10%
Pulse Frequency	0.1 kHz ~ 1000 kHz
Coupling Capacitance	33 nF
50Ω Calibration Characteristics at the Source End	Peak Voltage: (Set Voltage / 2) ±10% Rise Time: 4 ns to 7 ns Half-Peak Time: 30 ns to 60 ns
Input Form	50 Ω BNC Coaxial Connector
Input Residual Voltage	Below 10% of the Set Voltage Value (with EUT line input and output open-circuit)
Decoupling Attenuation	> 20 dB
Series Coupling Attenuation	> 30 dB
Coupling/Decoupling Parameters for Lightning Surge Immunity	
Applicable Interference Voltage Polarity	Positive/Negative/Alternating between Positive and Negative
Output Voltage	100 V ~ 7000 V±10%
Coupling Parameters	Differential Mode： 18 μF Common Mode ：9 μF+10 Ω
CDN Input Residual Voltage	Not exceeding 15% of the surge voltage or 2 times the peak voltage of the rated Equipment Under Test (EUT) power supply.