



HV Lightning Surge Coupling/ Decoupling Network **SPN 4516S15**

- IEC/EN 61000-4-5
- IEC/EN 61000-4-12
- GB/T 17626.5
- GB/T 17626.12

Features

- > Max. coupling voltage 15 kV (1.2/50 μ s); Max. coupling current: 7.5 kA (8/20 μ s)
- > Max. EUT DC load capacity DC 220 V, 16 A (support customization)
- > Max. EUT AC load capacity single-phase AC 450 V, 16 A (support customization)
- > Support test parameters sequence including voltage, polarity, phase synchronization angle, etc.
- > Phase angle superposition of any line
- > Coupling path indication (LED indicators)
- > Coupling resistance selectable according to IEC standard or user-defined settings

Introduction

The SPN 4516S15 HV Lightning Surge Coupling/Decoupling Network complies with IEC 61000-4-5 and IEC 61000-4-12 standards. It provides fully automatic single-phase coupling/decoupling functions, supports both AC and DC power supply applications, and can be used with the CWS series. It supports a max. EUT load capacity of DC 220 V 16 A and single-phase AC 450 V 16 A. Other EUT voltage and current ratings can be customized according to customer requirements.

Application Areas



Technical Parameters

Network Type	Fully automatic single-phase CDN
EUT Load Capacity	Max. DC 220 V 16 A Max. single-phase AC 450 V 16 A, 50/60 Hz
Coupling Path	Automatic switching of any combination of L (DC+), N (DC-), and PE coupling paths
Phase Synchronization	Phase angle combination of any L (DC+), N (DC-), and PE line
EUT Power Switching Mode	Fully automatic network switching
IEC 61000-4-5 Surge Parameters	
Network Port Test Voltage	0.25 kV ~ 15 kV $\pm 10\%$
Network Port Test Current	0.125 kA ~ 7.5 kA $\pm 10\%$
Open-circuit Voltage Waveform	Front time: 1.2 μs $\pm 30\%$
(Line-to-Line ≤ 16 A)*	Duration: 50 μs $\pm 20\%$
Short-circuit Current Waveform	Front time: 8 μs $\pm 20\%$
(Line-to-Line)	Duration: 20 μs $\pm 20\%$
Coupling Capacitance	9 μF , 18 μF
Coupling Resistance	10 Ω , 0 Ω
Coupling Attenuation	<2 dB (the generator automatic compensation)
Residual Surge Voltage at the Decoupling Network Power Port	<15% of the applied test pulse voltage or twice the peak value of the rated voltage of the coupling/decoupling network
*Note: The duration depends on the EUT current and pulse coupling path.	

General Parameters

EUT Power Input/Output Port	Plug-in insulated connector
Working Power	AC 220 V $\pm 10\%$, 50/60 Hz
Fuse	6 A
Max. Power Consumption	500 W
Auxiliary Interface	D-sub 25-pin
Working Status Indication	Front panel LED indication
Grounding Method	Flat grounding wire
Dimension	22 U rack 600 (W)*1,250 (H)*800 (D) mm
Weight	Approx. 100 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Power Cord, Test Cable, Fuse, RF Cable, Grounding Wire, CN25 Cable, Surge Calibration Cable, User Manual

Optional Main Unit

1	Multi-functional Lightning Surge Simulator	Model: CWS 1500C Standard: IEC 61000-4-5 Max. pulse output: 15 kV (1.2/50 μ s), 7.5 kA (8/20 μ s) Dimension: 35 U Weight: Approx. 200 kg	
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Optional Accessories

1	Wideband Current Monitoring Clamp	Model: CM 0220M Peak current: 20 kA Sensitivity: 0.01 V/A Max. continuous current (RMS): 150 A Frequency: 10 Hz ~ 20 MHz Output impedance: 50 Ω Max. charge: 1 A•s Interface type: BNC Dimension: 40 (ID)*116 (OD)*40 (T) mm	
2	Wideband Current Monitoring Clamp	Model: CM 0301M Peak current: 200 kA Sensitivity: 0.001 V/A Max. continuous current (RMS): 400 A Frequency: 10 Hz ~ 1 MHz Output impedance: 50 Ω Max. charge: 6 A•s Interface type: BNC Dimension: 40 (ID)*116 (OD)*40 (T) mm	
3	Immunity Test Software	Model: CoreLab > Support Windows 7/8/10 /11 > Supports Ethernet and serial communication modes > Supports parameter sequence, test sequences, easy for operation > Supports customer information configuration and automatic test report printing.	

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