



High Voltage and High-power Lightning Surge Coupling/decoupling Network

SPN 100400T10

- GB/T 17626.5
- IEC 61000-4-5

— Features

- > The maximum voltage for lightning surge testing can reach 10kV;
- > Meets AC/DC testing, with a maximum load capacity of AC 1000V 400A DC 1500V 400A;
- > This product is used in conjunction with our CCS and CWS series simulators to achieve fully automated testing;
- > The surge waveform parameters with a range of 0-400A meet the requirements of IEC 61000-4-5:2017 standard.

— Introduction

SPN 100400T10 high-voltage high-power lightning surge coupling/decoupling network is a fully automatic switching three-phase AC surge coupling/decoupling network developed and designed based on the company's third-generation control platform, in accordance with IEC 61000-4-5 and GB/T 17626.5 standards. Meet the needs of users for lightning surge testing of high-voltage and high-power products.

— Application Areas



Technical Parameters

Compliant with Standards	EN/IEC 61000-4-5、GB/T 17626.5
Pulse Voltage	Up to 10.0kV (1.2/50 μ s)
Pulse Current	Up to 5.0kA (8/20 μ s)
Phase Synchronization	Superposition of arbitrary line-line and line-ground phase angles
Coupling Path	L1、L2、L3、N、 Any combination of paths along the route L1 (DC+), N (DC -) DC path
Coupling Switching Method	Automatic switching and scheduling function
Coupling Capacitor	9 μ F (line-ground), 18 μ F (line-line)
Coupling Resistance	10 Ω (line-ground), 0 Ω (line-line)
Residual Pulse Voltage at EUT Injection End	Not exceeding 15% of the applied test pulse voltage or twice the peak rated voltage of the coupling/decoupling network
EUT Carrying Capacity	DC 1500V 400 A、 AC 1000V 400A
EUT Power Switching Method	Automatic switching
Rated Current and Waveform Parameters	$I \leq 400$ A, waveform parameters meet the full current range

General Parameters

Scope of Working Power Supply	AC 220 V ($\pm 10\%$), 50 Hz /60 Hz ($\pm 5\%$)
Fuse	10 A
Maximum Power Consumption	500 W
Auxiliary Interface	D-sub 25p
Instrument Working Status Indication	Front panel LED indicator
Instrument Grounding Connection method	Use a flat grounding wire
Cabinet Size	800 × 1200 × 1450mm (length × width × height)
Weight	About 700 kg
Ambient Temperature	15 $^{\circ}$ C ~35 $^{\circ}$ C
Relative Humidity	45% ~75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Three Core Power Cable, 25 Core Data Cable, Instruction Manual, Test Cable, Grounding Wire, Fuse.

Optional Accessories

CWS 600X	Combination wave lightning surge simulator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 6.0kV (1.2/50 μ s) and 3.0kA (8/20 μ s)
CWS 800X	Combination wave lightning surge simulator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 8.0kV (1.2/50 μ s) and 4.0kA (8/20 μ s)
CWS 1000X	Combination wave lightning surge simulator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 10.0kV (1.2/50 μ s) and 5.0kA (8/20 μ s)
CCS 600X	Combination immunity tester, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 6.0kV (1.2/50 μ s) and 3.0kA (8/20 μ s)
VCF-80	High voltage differential probe, maximum test voltage 8kV, attenuation ratio 1000:1, meets the open circuit voltage waveform calibration of lightning surge instruments
CM 0302M	Broadband current monitoring clamp, testing short-circuit current of 0.001 V/A

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