High-voltage and High-power Combined Coupling/Decoupling Network

SEPN 100125T

- IEC/EN61000-4-4:2012
- GB/T 17626.4:2018
- IEC 61000-4-5:2017
- GB/T 17626.5:2019
- IEC 61000-6-1:2016
- IEC 61000-6-2:2016
- EN 61000-4-5:2006

Features

> EUT DC carrying capacity DC 1500 V 125 A

> EUT AC carrying capacity AC 1000 V 125 A three-phase five wire

> Current range 0 A ~ 125 A; The full range is divided into 3 levels: 0 A ~ 32 A, 32 A ~ 63 A, 63 A ~ 125 A, with manual switching of three levels of current

> Overcurrent protection function

> Schedule the experimental parameters such as voltage, polarity, and phase synchronization angle to achieve fully automatic network switching

> Phase angle superposition of any line

> Coupling path display (indicator light)

> The coupling resistor can be customized according to IEC standards or positive voltage

> Adopting a plug-in insulated plug, it is both safe and convenient

> The emergency stop button automatically cuts off the EUT power supply and high-voltage coupling path

Introduction

SEPN 100125T high-voltage high-power combined coupling/decoupling network, realizing fully automatic three-phase coupling/decoupling function, can meet AC/DC AC/DC power supply, matched with CCS, CWS, EFT series instruments, EUT maximum load capacity DC 1500 V 125 A, AC 1000 V 125 A three-phase five wire, other EUT voltage and current levels can be customized according to customer requirements.

Application Areas

Technical Parameters

Network Type	Fully automatic three-phase coupling/decoupling network
EUT Carrying Capacity	Max DC 1500 V,125 A
	Max AC 1000 V,125 A, 50/60 Hz three-phase five wire
EUT current detection	BNC output, 100 A : 1 V
Coupling Path	Any combination path of L1, L2, L3, N, PE, automatic switching
Phase Synchronization	L1,L2,L3,N,PE， Superposition of phase angles on any line
EUT Power Switching Method	Automatic switching
Pulse Group Parameters IEC 61000-4-4	
Voltage Range for Network Port Test	Coupled waveform : 5/50 ns 0.25 kV ~ 4.5 kV ± 10% (5kV generator) 0.25 kV ~ 5.5 kV ± 10% (6kV generator)
Pulse Input Port	SHV
Coupling Capacitance	33 nF
Rise Time	5.5 ns ± 1.5 ns，50 Ω
Pulse Width	45 ns ± 15 ns, 50 Ω load
Surge Parameters IEC 61000-4-5	
Voltage Range for Network Port Test	Coupled waveform : 1.2/50 μs 0.25 kV ~ 10 kV ± 10% (10kV generator)
Current Range for Network Port Test	Coupled waveform : 8/20 μs 0.125 kA ~ 5 kA ± 10% (10kV generator)
Surge Input Port	4mm banana jack
Coupling Rapacitance	9 μF,18 μF
Coupling Resistance	10 Ω, 0 Ω
Open Circuit Voltage Waveform Parameters	Wavefront time: 1.2 μs ± 30%
	Duration: 50 μs ± 20%
Short Circuit Current Waveform Parameters (2 Ω)	Wavefront time: 8 μ s ± 20%
	Duration: 20 μ s ± 20%
Coupling Attenuation	<2 dB(Generator automatic compensation)
Residual Surge Voltage at Decoupling Network Power Port	Not exceeding 15% of the applied test pulse voltage or twice the peak rated voltage of the coupling/decoupling network
When different EUT current ranges are used, the pulse waveform parameters are compared according to standard IEC 61000-4-5 6.3	

General Parameters

EUT Power Input/Output Port	Plug and unplug insulated plug
Scope of Working Power Supply	AC 220 V, 50/60 Hz
Fuse	6 A
Maximum Power Consumption	500 W
Auxiliary Interface	D-sub 25pin
Instrument Working Status Indication	Front panel LED indication
Instrument Grounding Connection Method	Use a flat grounding wire
Dimension	19 inches/22U 600 mm(W)*1250 mm(H)*800 mm(D)
Instrument Weight	Approx 150 kg
Ambient Temperature	15 ℃ ~ 35 ℃
Relative Humidity	45% ~ 75% RH(without condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Power Cord, Fuse, Test Wire, Grounding Wire, CN25 Wire, Coaxial Line, Instruction Manual, Quality Inspection Report, Pulse Group Single Channel Testing Fixture, Surge calibration test line

Optional Host Generator	EFT 500x	EFT/Burst generator, meeting IEC 61000-4-4 standard, with a maximum pulse output of 5 kV
	EFT 600x	EFT/Burst generator, meeting IEC 61000-4-4 standard, with a maximum pulse output of 6 kV
	EFT 700x	EFT/Burst generator, meeting IEC 61000-4-4 standard, with a maximum pulse output of 7 kV
	CWS 600x	Surge generator,meeting the IEC 61000-4-5 standard, with a maximum pulse output of 6 kV (1.2/50 μs) and 3 kA(8/20 μs)
	CWS 800x	Surge generator, meeting IEC 61000-4-5 standard, with a maximum pulse output of 8.0 kV(1.2/50 μs)，4.0 kA(8/20 μs)
	CWS 1000x	Surge generator, meeting IEC 61000-4-5 standard, with a maximum pulse output of 10.0 kV(1.2/50 μs)，5.0 kA(8/20 μs)
	CCS 500x	Surge and EFT/Burst generator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 5.0 kV (1.2/50 μs), 2.5 kA (8/20 μs), meeting the IEC 61000-4-4 standard, and a maximum pulse output of 5kV
	CCS 600x	Surge and EFT/Burst generator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 6.0 kV (1.2/50 μs), 3.0 kA (8/20 μs), meeting the IEC 61000-4-4 standard, and a maximum pulse output of 6 kV
	CCS 800x	Surge and EFT/Burst generator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 8.0 kV (1.2/50 μs), 4.0 kA (8/20 μs), meeting the IEC 61000-4-4 standard, and a maximum pulse output of 6 kV
	CCS 1000x	Surge and EFT/Burst generator, meeting the IEC 61000-4-5 standard, with a maximum pulse output of 10.0 kV (1.2/50 μs), 5.0 kA (8/20 μs), meeting the IEC 61000-4-4 standard, and a maximum pulse output of 6 kV

Optional Accessories	VCF-80	Differential probe, maximum test voltage 8 kV, attenuation ratio: 1000:1, meets Calibration of open circuit voltage waveform for lightning surge instruments
	CM 0220M	CM series broadband current monitoring clamp, 0.01 V / A
	EFT-CA-KIT	Pulse group calibration kit: EFT attenuator, meeting pulse group calibration requirements TFB 500 (SHV): Input impedance 50 Ω, output impedance 50 Ω, attenuation 55 dB TFB 1000 (SHV): Input impedance 1000 Ω, output impedance 50 Ω, attenuation 60 dB High voltage RF connector: SHV-BNC-JJ BNC to Banana Plug: BNC (K) -2BP (J) RF cable: Blue RG142-BN-JJ 1M

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