

HV High-Power Coupling/Decoupling Network for EFT/Burst and Surge Immunity Test **SEPN 100200T**



- IEC/EN 61000-4-4
- IEC/EN 61000-4-5
- IEC 61000-6-1
- IEC 61000-6-2
- GB/T 17626.4
- GB/T 17626.5

Features

- > EUT AC load capacity AC 1,000 V 200 A, three-phase five-wire
- > EUT DC load capacity DC 1,500 V 200 A
- > Current range 0 A ~ 200 A; 4-range automatic switching 0 A ~ 32 A, 32 A ~ 63 A, 63 A ~ 125 A, 125 A ~ 200 A.
- > Over-current protection
- > Support test sequencing with test voltage, polarity, phase sync angles etc. to realize fully automatic network switching
- > Support superposition of phase angles for any circuit
- > Coupling path indication (indicator lamp)
- > The coupling resistance can be set to IEC standard values or user-defined values
- > Safe pluggable insulated connectors for secure and convenient operation
- > Automatically disconnect power supply to the EUT and high-voltage pulse circuits via the E-stop button

Introduction

The SEPN 100200T HV High-Power Coupling/Decoupling Network for EFT/Burst and Surge Immunity Test complies with IEC/EN 61000-4-4, and IEC/EN 61000-4-5. This unit supports three-phase five-wire power input and features fully automatic three-phase coupling and decoupling functions. It accepts both AC and DC power supply and is fully compatible with CCS, CWS and EFT series.

The SEPN 100200T has a Max. EUT load rating of AC 1,000 V / 200 A and DC 1,500 V / 200 A. Custom EUT voltage and current ratings are available on request.

Application Areas



Technical Parameters

Type of CDN	Fully automatic three-phase coupling/decoupling network
EUT Load Capacity	Max. AC 1,000 V, 200 A, 50/60 Hz (three-phase five-wire) Max. DC 1,500 V, 200 A
EUT Current Detection	BNC output, 100 A : 1 V
Coupling Path	Automatic switching for any path of L1, L2, L3, N and PE
Phase Sync.	Phase angle superposition for any circuit of L1, L2, L3, N and PE
EUT Power Switching Mode	Fully Automatic Network Switching
Technical Parameters for EFT / Burst as per IEC / EN 61000 - 4 - 4	
Coupling Waveform	5/50 ns
Test Voltage of Network Port	0.25 kV ~ 5.5 kV $\pm$ 10%
Calibration Waveform @50 Ω Load	Rise time (t_r): 5.5 ns $\pm$ 1.5 ns Pulse width (t_w): 45 ns $\pm$ 15 ns
Pulse Frequency	0.1 kHz ~ 1,000 kHz
Burst Duration	0.075 ms ~ 750 ms
Test Mode	Optional scheduling mode
Polarity	Positive, negative, alternative
Coupling Capacitor	33 nF
Technical Parameters for Surge as per IEC / EN 61000 - 4 - 5	
Coupling Waveform	1.2/50 μ s, 8/20 μ s
Test Voltage of Network Port	0.25 kV ~ 10 kV $\pm$ 10% (10 kV generator)
Test Current of Network Port	0.125 kA ~ 5 kA $\pm$ 10% (10 kV generator)
Open-Circuit Voltage Waveform (L-L, Max. 16 A)*	Front time: 1.2 μ s $\pm$ 30% Holding time: 50 μ s $\pm$ 20%
Short-Circuit Current Waveform (L-L)	Front time: 8 μ s $\pm$ 20% Holding time: 20 μ s $\pm$ 20%
Surge Input Port	4 mm banana plug
Coupling Capacitor	9 μ F, 18 μ F
Coupling Resistor	10 Ω , 0 Ω
Coupling Attenuation	< 2 dB (Automatic Generator Compensation)
Residual Surge Voltage at the Power Port of Decoupling Network	< 15% of applied test pulse voltage/double peak rated voltage of CDN
*Note: Holding time is related to the EUT current and pulse coupling paths; refer to the relevant standards for details.	

General Parameters

EUT Power Input / Output Ports	Plug-in insulated plug
Working Power	AC 220 V, $\pm 10\%$, 50 Hz/60 Hz
Fuse	6 A
Max. Power Consumption	500 W
Auxiliary Interface	D-sub 25p
Safe Circuit	Press the E-stop button, and the instrument will stop operation.
Working Status Indication	Front panel LED indication
Grounding Method	Flat grounding wire
Dimensions	800 (W)*1,440 (H)*1,200 (D) mm
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75% RH (no condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa
Weight (incl. Supply)	Approx. 480 kg

Standard Accessories

Three-core Power Cord, Fuse, User Manual, Test Cable, Flat Grounding Wire, Coaxial Cable, CN25 Cable, EFT Single-Channel Test Fixture

Optional Generator

1	Compact Combination Simulator	CCS series generator: Matches external SEPN CDN for lightning surge & ring wave tests	
2	Combination Wave Simulator	CWS series generator: Matches external SEPN CDN for lightning surge tests	
3	EFT/Burst Simulator	EFT series generator: Matches external SEPN CDN for EFT burst tests	

Optional Accessories

1	Broadband Current Monitoring Clamp	Model: CM 0220M Max. peak current: 20 kA Sensitivity: 0.01 V / A	
2	Differential Probe	Model: VCF-80 Max. pulse voltage: 8 kV Attenuation: 1,000:1	
3	EFT Calibration Kit	Model: EFT-CA-KIT(SHV) TFB 500(SHV) Impedance: 50 Ω , Attenuation: 500:1 TFB 1000(SHV) Impedance: 1,000 Ω , Attenuation: 1,000:1 Input port: SHV-Female Output port: BNC-Female	
4	PC Software	Model: CoreLab > Compatible with Windows 7/8/10/11 > Ethernet interface > supports test sequencing with user-friendly operation, and test reports printing	

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