

HV High-Power Coupling/Decoupling Network SEPN 48200T



- 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 480 V 200 A three-phase five-wire
- > EUT DC load capacity DC 1,000 V 200 A
- > Current range: 0 ~ 200 A; four automatically selectable ranges: 0 ~ 32 A, 32 ~ 63 A, 63 ~ 125 A, and 125 ~ 200 A
- > Overcurrent protection
- > Scheduled setting of test parameters, including test voltage, polarity, and phase synchronization angle, for fully automated network switching
- > Phase angle superposition between any lines
- > Coupling path indication (indicator lights)
- > Selectable coupling resistor: IEC standard or user-defined
- > Safe and convenient plug-in insulated connectors
- > Emergency stop automatically disconnects EUT power and high-voltage pulse circuits

Introduction

SEPN 48200T HV High-Power Coupling/Decoupling Network complies with IEC/EN 61000-4-4/-5 that enables fully automatic three-phase coupling and decoupling. It supports both AC and DC power supplies and is compatible with CCS, CWS, and EFT series test instruments.

The Max. EUT load capacity up to 480 V AC / 200 A or 1,000 V DC / 200 A. Custom voltage and current ratings are available to meet specific test requirements.

Application Areas



Technical Parameters

Network type	Fully Automatic Three-Phase Coupling/Decoupling Network
EUT Load Capacity	Max. AC 480 V, 200 A, 50/60 Hz, three-phase, five-wire Max. DC 1,000 V, 200 A
EUT Current Monitoring	BNC Output, 100 A : 1 V
Coupling Path	Automatic Switching of Any Combination of L1, L2, L3, N, and PE
Phase Synchronization	Phase Angle Superposition Between Any Lines of L1, L2, L3, N, and PE
EUT Power Switching	Fully Automatic Network Switching
IEC 61000-4-4 EFT/Burst Technical Parameters	
Coupling Waveform	5/50 ns
Test Voltage at Network Port	0.25 kV ~ 5.5 kV $\pm 10\%$
50 Ω Calibration Waveform	Rise time (t_r): 5.5 $\pm$ 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	Selectable test sequence
Polarity	Positive, negative, alternative
Coupling Capacitor	33 nF
IEC 61000-4-5 Surge Technical Parameters	
Coupling Waveform	1.2/50 μ s and 8/20 μ s Combination Wave
Test Voltage at Network Port	0.25 kV ~ 10 kV $\pm 10\%$ (with 10 kV Generator)
Test Current at Network Port	0.125 kA ~ 5 kA $\pm 10\%$ (with 10 kV Generator)
Open-circuit Voltage Waveform Parameters (Line-to-Line ≤ 16 A)*	Front Time: 1.2 μ s $\pm 30\%$
	Duration: 50 μ s $\pm 20\%$
Short-circuit Current Waveform Parameters (Line-to-Line)	Front Time: 8 μ s $\pm 20\%$
	Duration: 20 μ s $\pm 20\%$
Surge Input Port	4 mm Banana Jack
Coupling Capacitor	9 μ F, 18 μ F
Coupling Resistor	10 Ω , 0 Ω
Coupling Attenuation	<2 dB (Automatically Compensated by the Generator)
Residual Surge Voltage at the Decoupling Network Power Port	<15% of the applied test pulse voltage or twice the rated peak voltage of the CDN

General Parameters

EUT Power Input/Output Port	Plug-in insulated connector
Operating Power Supply	AC 220 V $\pm 10\%$, 50/60 Hz
Fuse	6 A
Max. Power Consumption	500 W
Auxiliary Interface	D-sub 25-pin
Safety Circuit	Pressing the Emergency Stop Button Stops the Instrument
Working Status Indication	Front panel LED indication
Grounding Method	Flat grounding wire
Dimension	800 (W)*1,440 (H)*1,200 (D) mm
Weight	Approx. 470 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

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

Optional Main Unit

1	Compact Combination Simulator	The CCS series generators can be used with external SEPN series networks to perform surge and ring wave tests.	
2	Combination Lightning Surge Simulator	The CWS series generators can be used with external SEPN series networks to perform surge immunity tests.	
3	EFT/Burst Generator	The EFT series generators can be used with external SEPN series networks to perform EFT/burst immunity tests.	

Optional Accessories

1	Broadband Current Monitor Probe	Model: CM 0220M Max. Peak Current: 20 kA Sensitivity: 0.01 V/A	
2	High-Voltage Differential Probe	Model: VCF-80 Max. Pulse Voltage: 8 kV Attenuation Ratio: 1,000:1	
3	EFT/Burst Calibration Kit	Model: EFT-CA-KIT(SHV) TFB 500(SHV): Impedance 50 Ω , 500:1 TFB 1000(SHV): Impedance 1,000 Ω , 1,000:1 Input Port: SHV Female Output Port: BNC Female	
4	Immunity Test Software	Model: CoreLab > Supports Windows 7/8/10/11 > Support ethernet interface > Support test sequence execution, easy operation, and test report printing	

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