HV High-Power CDN for EFT/Burst and Surge Immunity Tests

SEPN 2550S

Datasheet

In Compliance with

> 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

Introduction

The SEPN 2550S single-phase automatic coupling/decoupling network for EFT/Burst and surge immunity tests is designed according to test requirements of IEC/EN 61000-4-4 and IEC/EN 61000-4-5, features stable performance and convenient operation. The device is used together with CCS series, CWS series and EFT series of 3ctest. It can couple surge and EFT/Burst wave pulses onto single-phase mains supply system with voltage AC 250 V/DC 100 V and current 50 A can also be customized according to actual EUT load.

Features

> EUT load capacity is AC 250 V, 50 A, and DC 100 V, 50 A;

> Automatic power supply path switching;

> Over-current protection;

> Test sequencing with test voltage, polarity, phase sync angles etc;

> Superposition of any phase angles;

Application Areas

> Communication
> IT
> Telecom
> Military
> Medical
> Avionics
> TV Broadcasting
> New energy electrical power
> Railway

Technical Parameters – EFT/Burst	
Single-phase Automatic CDN	(As per IEC/EN 61000-4-4,) Max. test voltage: 4.2 kV (Note: the actual output voltage is subject to the set value of the generator)
Phase Sync.	Any combination of L, N, PE with any phases and angles
Coupling Paths	Any combination of L, N, PE
Switching of Coupling Paths	Automatic, schedulable
Coupling Capacitor	33 nF
Coupling Attenuation	<2 dB
Residual Surge Voltage at the EUT Injection Terminal	<10% of the test voltage

Technical Parameters - Surge	
Single-phase Automatic CDN	As per IEC/EN 61000-4-5, Max test voltage: 6.0 kV (1.2/50 μs), max. test current: 3.0 kA (8/20 μs) (Note: the actual output voltage is subject to the set value of the generator)
Phase Sync.	Any combination of L, N, PE with any phases and angles
Coupling Paths	Any combination of L, N, PE
Switching of Coupling Paths	Automatic, Schedulable
Coupling Capacitor	9 uF, 18 uF
Coupling Resistor	10 ohm, 0 ohm (standard or user-defined)
Coupling Attenuation	<2 dB
Residual Surge Voltage at the EUT Injection Terminal	<15% of test voltage, or <2 times of rated peak voltage of the CDN

General Parameters	
EUT Load Capacity	Max AC 250 V 50 A Max DC 100 V 50 A
EUT Power Supply Switching Mode	Automatic
Power Supply	AC 110 V / 220 V±10%，50/60 Hz ± 5%
Fuse	6 A
Max Power	200 W
Auxiliary Terminal	D-sub 25p
Status Indicators	Front panel LED
Grounding Method	Flat Grounding strap
Dimension	19"/22U
Weight	100 kg
Ambient Temperature	15 ℃~35 ℃
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Accessories
User manual, Test line, Power line, Grounding line, fuse, Coaxial cable

Optional Generators & Calibration Tools	
EFT 500x	EFT/Burst generator, as per IEC 61000-4-4, max. burst output voltage 4.8 kV
EFT 600x	EFT/Burst generator, as per IEC 61000-4-4, max. burst output voltage 6.0 kV
EFT 500x	EFT/Burst generator, as per IEC 61000-4-4, max. burst output voltage 7.0 kV
CWS 600x	Surge generator; as per IEC 61000-4-5; max. pulse output voltage 6.0 kV (1.2/50 µs), output current 3.0 kA (8/20 µs)
CWS 800x	Surge generator; as per IEC 61000-4-5; max. pulse output voltage 8.0 kV (1.2/50 µs), output current 4.0 kA (8/20 µs)
CWS 1000x	Surge generator; as per IEC 61000-4-5; max. pulse output voltage 10.0 kV (1.2/50 µs), output current 5.0 kA (8/20 µs)
CCS 600x	Surge and EFT/Burst generator; As per IEC 61000-4-4, max burst output voltage is 4.8 kV As per IEC 61000-4-5, max. pulse output voltage 6.0 kV (1.2/50 µs), output current 3.0 kA (8/20 µs)
CCS 1000x	Surge and EFT/Burst generator; As per IEC 61000-4-4, max burst output voltage is 4.8 kV As per IEC 61000-4-5, max. pulse output voltage 10.0 kV (1.2/50 µs), output current 5.0 kA (8/20 µs)
VCF-80	HV differential probe, for calibration of Surge generator (open-circuit voltage waveform); test voltage max 8 kV, attenuation: 1000:1;
TR 5025	HV current transducer, for calibration of Surge generator (short-circuit current waveform); Test current max 20 kA, attenuation 100:1;
Calibration Kit for EFT/Burst Generators	TFB 50: input impedance 50 Ω, output impedance 50 Ω, attenuation 55 dB; TFB 1000: input impedance 1000 Ω, output impedance 50 Ω, attenuation 60 dB; Supplied with network adaptors and tool box.

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