

Combination Wave Lightning Surge Simulator

Datasheet

CWS 60 Series
CWS 600 Series
CWS 800 Series
CWS 1000 Series



In compliance with

- | | |
|------------------|--------------|
| > IEC 61000-4-5 | > UL1449 |
| > IEC 61000-4-9 | > ITU-T K.12 |
| > IEC 60255-22-5 | > ITU-T K.45 |
| > IEC 61850-3 | > ITU-T K.20 |
| > EN 61000-4-5 | |
| > EN 61000-4-9 | |
| > IEC/EN 61326 | |
| > GB/T 17626.5 | |
| > GJB 4000-2000 | |

Introduction

Lightning surge is a phenomenon of transient high voltage or bulk current produced by lightning and the on-and-off behavior of electronic or electrical switches, almost all the electronic or electrical device will suffer from surge. High-end CWS 600 series combination wave lightning surge simulator is specially designed to simulate the surge impulse interference, which totally satisfy the immunity testing requirement of CE and CCC approval to single-phase EUT. Optional external coupling/decoupling networks can be configured to test three-phase EUTs. With PMC 1200 module, the product and meet the requirement of IEC 61000-4-9.

Features

- > 5.7 inches color touch screen on front panel
- > Built-in single-phase coupling/decoupling networks
- > With test sequence, easy operation
- > 250 V AC / 16 A; 110 V DC-1 / 12 A
- > Controllable external three-phase coupling/decoupling networks
- > Surge voltage and current monitoring LCD display
- > Ethernet, RJ 45 interface for PC remote control and printing testing report

Application Areas

- | | |
|-----------------|-------------------------------|
| > Communication | > Technology |
| > Telecom | > Military |
| > Medical | > Avionics |
| > Broadcast | > New Energy Electrical Power |
| > Railway | > New Energy Vehicles |

Technical Parameters

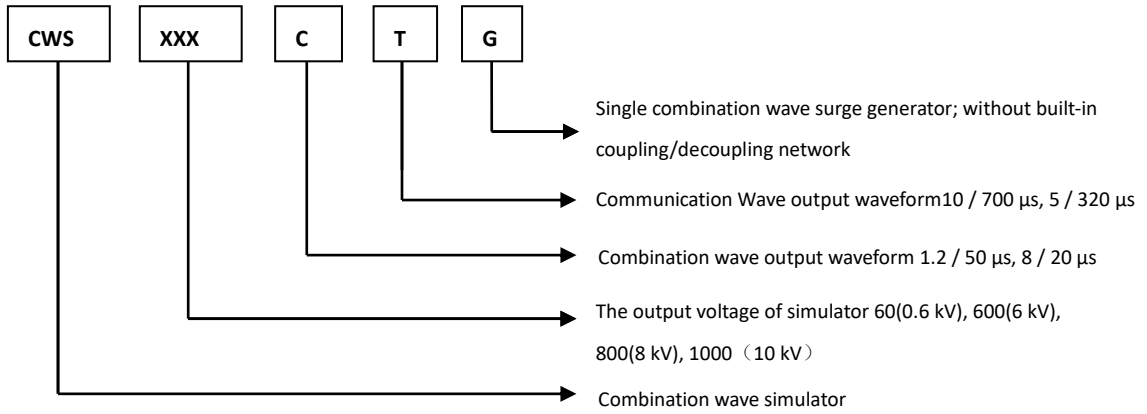
Model No.	Output Voltage	Output Waveform		Output Impedance			Peak Value Acquisition
		1.2/50 μ s 8/20 μ s	10/700 μ s 5/320 μ s	2 Ω	15 Ω	40 Ω	
CWS 60G	20-600 V	✓		✓			
CWS 600	0.3-6 kV	✓		✓			✓
CWS 800	0.3-8 kV	✓		✓			✓
CWS 1000	0.3-10 kV	✓		✓			✓
CWS 600T	0.3-6 kV		✓		✓	✓	
CWS 600CT	0.3-6 kV	✓	✓	✓	✓	✓	✓

Model No.	Optional Coupling/Decoupling Networks		Optional Impulse Magnetic Field IEC 61000-4-9 GB/T 17626.9	Cabinet Dimension	
	Built-in single-phase-3-wire AC 220 V 16 A DC-1 220 V 12 A	External three-phase-5-wire SPN 38XXT AC 380 V 16 A DC-1 220 V 16 A (30 A)		19 Inches 6U	19 Inches 8U
CWS 60G				✓	
CWS 600	✓	✓	✓	✓	
CWS 800	✓	✓	✓		✓
CWS 1000			✓		✓
CWS 600T				✓	
CWS 600CT		✓	✓	✓	

General Parameters	
Synchronization	0°-360°, 1° step setup or random mode
Polarity	+/-/alternative
Trigger Mode	AUTO/MANUAL/EXTERNAL SIGNAL TRIGGER
Impulse Cycle	5-99 s (The shortest cycle depends on testing current)
Testing number	1-999
Failure Detection	The failure information will be displayed on LCD in front panel when failure occurs and interrupt the working of instrument.
Working Status Indication	LED indication and LCD display on front panel
EUT Mains Voltage Injection	4mm2 banana plug cable
Detection Output Mode	Standard 1 m Coaxial Wire
Display Screen	5.7 Inches TFT color touch screen
Working Mains	AC 110 V/220 V,±10%, 50 Hz /60 Hz (AC 220 V in mainland China)
Fuse	6 A
Maximum Power Consumption	200 W
User Storage Space	Infinite (PC)
Communication Mode	Ethernet, RJ45
Cabinet Dimension (W*H*D)	19 Inches/6 U/8 U
Weight	Approx. 30 Kg
Ambient Temperature	15 °C-35 °C
Relative Humidity	45%-75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Optional Testing Functions and Accessories
1. Surge coupling/decoupling networks (CDN) SPN series IEC61000-4-5; SPN 3816T/32T (three-phase 380 V 16 A/32 A) ; SPN 38100T (three-phase 380 V 100 A) SPN 6916T/32T (three-phase 690 V 16 A/32 A)
2. Signal cable/ CDN for communication cable testing as per IEC 61000-4-5 (A) CDNs for 4-wire communication cable (B) CDNs for 8-wire communication cable
3. Impulse magnetic field convertor PMC1200 IEC 61000-4-9
4. Magnetic field coil TCXS111 1mX1m single-turn coil; Magnetic field coil TCXS113 1 mX1 m three-turn coil IEC 61000-4-8
5. High voltage differential probe, Model NO. : VCF-80, testing voltage 8 kV, attenuation 1000:1
6. Wide-band Current Monitor, Model No.: CM 0220M
7. PC Control Software CoreLab Support Windows XP and Windows 7; easy operation& beautiful UI ; user can easily perform customized testing sequence through each operation function and standard library; generate testing report flexibly.

Naming Rule



Model No.



CWS 600/600T/600CT
 Combination wave lightning surge simulator



CWS 800
 Combination wave lightning and surge simulator



CWS 600G/SPN 69100T
 High-power lightning surge testing system