

## Combination Wave Lightning Surge Simulator

### CWS 800CT



#### In Compliance with

- > IEC 61000-4-5
- > IEC 61643-1
- > GB/T 17626.5
- > GB/T 16927.1
- > ITU-T K.21
- > ITU-T K.44

#### Introduction

CWS 800CT combination wave lightning surge simulator is a high-end test equipment specially designed for simulating surge pulse interference, which can generate high-voltage pulse waveforms of 1.2/50 $\mu$ s, 8/20 $\mu$ s, 10/700 $\mu$ s and 5/320 $\mu$ s. Meet the requirements of IEC 61000-4-5 and other standards.

The performance of CWS 800CT fully meets the requirements of EU CE certification and CCC certification for the immunity test of the equipment under test, and the surge test can be carried out on the equipment under test through an external coupling/decoupling network.

#### Features

- > 5.7-inch colorful touch screen;
- > Voltage can reach 8 kV;
- > Generate 1.2/50 $\mu$ s, 8/20 $\mu$ s, 10/700 $\mu$ s, 5/320 $\mu$ s high voltage pulse waveforms; As per IEC 61000-4-5;
- > Display peak voltage / current on LCD;
- > Test sequencing and scheduling, easy test setting;
- > Equipped External three-phase coupling /decoupling network;
- > Equipped external magnetic field coil and accessory modules to meet IEC 61000-4-9 TEST.

#### Application Areas

- |                 |                          |
|-----------------|--------------------------|
| > Communication | > Information technology |
| > Telecom       | > Military               |
| > Medical       | > Aviation               |
| > Radio and TV  | > New energy power       |
| > Railway       | > New energy vehicle     |

Technical Parameters 1.2/50 $\mu$ s、 8/20 $\mu$ s	
Test Voltage Range	0.5 kV ~ 8 kV $\pm$ 10%
Voltage Waveform	Front time: 1.2 $\mu$ s $\pm$ 30%; Pulse width: 50 $\mu$ s $\pm$ 20%
Test Current Range	0.25 kA ~ 4 kA $\pm$ 10%(2 ohm)
Current Waveform	Front time: 8 $\mu$ s $\pm$ 20%; Pulse width: 20 $\mu$ s $\pm$ 20%
Source Impedance	2 ohm, and 12 ohm to select
Output Polarity	+, -, +/-
Pulse Period	6 s ~ 180 s (the min. depends on the test voltage)
No. Of Tests	1 ~ 999
Peak voltage monitor	BNC output : 1000 V:1 V; LCD display
Peak current monitor	BNC output : 500 A:1 V; LCD display
Triggering Method	Automatic / manual / external triggering
Test mode	Test parameter scheduling setting

Technical Parameters 10/700 $\mu$ s、 5/320 $\mu$ s	
Test Voltage Range	0.5 kV ~ 8 kV $\pm$ 10%
Voltage Waveform	Front time: 10 $\mu$ s $\pm$ 30%; Pulse width: 700 $\mu$ s $\pm$ 20%
Current Waveform	Front time: 5 $\mu$ s $\pm$ 20%; Pulse width: 320 $\mu$ s $\pm$ 20%
Source Impedance	15 ohm, and 40 ohm to select
Output Polarity	+, -, +/-
Pulse Period	11 s ~ 180 s (the min. depends on the test voltage)
No. Of Tests	1 ~ 999
Triggering Method	Automatic / manual / external triggering
Test mode	Test parameter scheduling setting

Technical Parameters 1.2/50 $\mu$ s	
Test Voltage Range	0.5 kV ~ 8 kV $\pm$ 10%
Voltage Waveform	Front time: 1.2 $\mu$ s $\pm$ 30%; Pulse width: 50 $\mu$ s $\pm$ 20%
Source Impedance	500 ohm
Output Polarity	+, -, +/-
Pulse Period	6 s ~ 180 s (the min. depends on the test voltage)
No. Of Tests	1 ~ 999
Peak voltage monitor	BNC output : 1000 V:1 V; LCD display
Triggering Method	Automatic / manual / external triggering
Test mode	Test parameter scheduling setting

General Parameters	
Display	5.7-inch colorful touch screen
Operating Power Supply	AC 110 V / 220 V ± 10%, 50 Hz / 60 Hz (AC 220 V in China)
Fuse	6 A
Max Power	200 W
User storage space	Infinite(PC)
Communication Method	Ethernet and RJ 45
Operating State Indicators	Front panel LED, LCD
Malfunction Detection	Malfunctions will be shown on LCD while the operation will be stopped.
Monitor output way	1 meter coaxial-line
Dimension	6 U
Weight	Approx. 55 kg
Operating Temp.	15°C ~ 35°C
Operating Humidity	45% ~ 75%
Operating Air Pressure	86kPa ~ 106kPa

Standard Accessories
Power line, Test lines, Ground line, User manual , Coaxial-line, Fuses

Optional Accessories
1. External coupling/decoupling network SPN series: IEC 61000-4-5 SPN 2216S (220 V/16 A single phase coupling/decoupling network) SPN 3816T&SPN 3832T (380 V/16 A&380V /32 A three-phase coupling/decoupling network) SPN 38100T(380 V/100 A three-phase coupling/decoupling network) SPN 6916T&SPN 6932T (690 V/16 A &690V /32 A three-phase coupling/decoupling network)
2. Signal/Communication lines coupling/decoupling network: IEC 61000-4-5 CDN 405T8A1(surge CDN for shielded asymmetric communication lines, 8 lines, including 4 lines tests) CDN 405M40-5(surge CDN for unshielded asymmetric communication lines, 2 lines tests) CDN 405AF4(surge CDN for unshielded asymmetric communication lines, 4 lines tests) CDN 405AF8-C(surge CDN for unshielded asymmetric high communication lines, 8 lines tests)
3. Pulsed magnetic field converter PMC 1200, as per IEC 61000-4-9
4. Filed coil: TCXS111: Single turn coil, 1 m×1 m IEC 61000-4-8 TCXS113: three turns coil, 1 m×1 m IEC 61000-4-8
5. Differential probe VCF-80 test voltage: 8 kV (Attenuation 1000:1)
6. Broadband current monitoring pliers : CM 0220M Attenuation : 0.01 V/A;
7. PC software: Corelab With PC installed WIN 7, WIN 8 and WIN 10, it can be easily operated to make the measurement, based on the customized test program. It can identify any device with automatic configuration. It can easily generate test reports.



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