

Combination wave surge simulator

CWS 600



As per

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| > 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 | |

Description

Surge pulses occur due to direct or indirect lightning strokes to an external circuit. This leads to current or electromagnetic fields causing high voltage or current transients. Another source for surge pulsed is switching transients originating from switching disturbances and system faults. Nearly every electrical and electronic device may suffer from such surge pulses.

CWS600 is the most intelligent immunity test instrument which fully complies with CE and CCC relative standards. with external CDN and optional accessories, it can conduct for three-phase DUT and also pulsed magnetic field immunity test.

Features

- > 5.7 inch color touch screen .
- > surge failure detection
- > surge voltage up to 6kV, surge current up to 3kA
- > Test programmable function with easy operation
- > surge voltage and current monitoring and LCD display
- > controlled external three-phase CDN
- > external magnetic field coil as per IEC61000-4-9 test
- > Ethernet, RJ45 for PC remote control, print ans documentation
- > internal automatic switchable single phase CDN 250V AC/16A; 220V DC-1/12A

Industries

- | | |
|-----------------|--------------|
| > Communication | > Technology |
| > Telecom | > Military |
| > Medical | > Avionics |
| > Broadcast | > New energy |
| > Railway | |

General data	
Display screen	5.7 inch TFT color touch screen
Power supply	AC 110V/220V, $\pm 10\%$, 50/60Hz, $\pm 5\%$ (default AC 220V, 50Hz)
Fuse	6A
Max. Power consumption	200W
Memory space	Infinite (PC)
Communication mode	Ethernet, RJ45
External control	D-sub 25p
External trigger input	BNC, 5V TTL
CRO trigger output	BNC, 5V TTL
Input	BNC, 5V TTL
Synchronization	45-65Hz, 20-500V between dotted terminal & undotted terminal 0-500V among dotted terminal, undotted terminal and case
Warning LED	0-220VAC 10A/0-48VDC 3A Depending on external signal lamp
Safety circuit	Test only can be started when it is closed
Failure test	Display on LCD and interrupt the work at failure case
EUT voltage monitoring output	BNC, 100:1 coaxial terminal output
EUT current monitoring output	BNC, 10A:1V coaxial terminal output
Working indicator	LED, LCD front panel display
Grounding connection	Flat ground line
EUT power injection	4mm ² banana plug
Output mode	Standard 1m coaxial cable
Size	19 inch/6U
Weight	Approx. 35Kg
Temperature	15-35°C
Humidity	45%-75%
Air pressure	86kPa-106kPa

Surge test as per IEC 61000-4-5	
Surge module	
Standard	IEC/EN61000-4-5, GB/T17626.5
Test voltage	0.2kV-6kV $\pm 10\%$ (CWS 600) 0.2kV-8kV $\pm 10\%$ (CWS 800)
Voltage waveform	Front time: 1.2 μ s $\pm 30\%$ Time to half value: 50 μ s $\pm 20\%$
Test current	0.1kA-3kA $\pm 10\%$ (CWS 600) 0.1kA-4kA $\pm 10\%$ (CWS 800)
Current waveform	Front time: 8 μ s $\pm 20\%$ Time to half value: 20 μ s $\pm 20\%$
Source output impedance	2 ohm
Output polarity	+/-/alternative
Coupling capacitance	9 μ F, 18 μ F
Coupling Resistance	10 ohm, 0 ohm coupling resistance, IEC standard mode or customized mode
Pulse cycle	6s-99s (shortest depends on test voltage)
Surge voltage and current peak detection	BNC front panel output Surge voltage 1000:1 Surge current 100A:1V 3 digits display
Number of test	1-999
Trigger mode	Automatic, manual and external
Synchronization	0° - 360°, 1° step or random
Coupling/decoupling network	Internal single phase automatic CDN LNPE

Pulse magnetic field test as per IEC 61000-4-9	
PFM module	
Standard	IEC/EN 61000-4-9、GB/T 17626.9
Output magnetic field	100A/m-1200A/m
Output current	100A-2000A
Waveform	Rise time: $6.4\mu s \pm 30\%$
	Duration: $16\mu s \pm 30\%$
Synchronization	$0^\circ - 360^\circ$, 1° step or random
Polarity	+/-/alternative
Trigger mode	Automatic, manual and external
Pulse cycle	5-99s (shortest depends on test current)
Number of test	1-999
Coil size	1000 x 1000mm or others
Coil shape	Rectangle or others
Coil turn	Single turn
Output magnetic field strength	Programmable setup

Basic equipments
Simulator, user manual, factory test report, test cable, power cord, two fuses

Optional accessories
1. Surge CDN SPN series as per IEC61000-4-5 SPN 3832T (380V) SPN 6932T (three-phase 690V 32A) SPN 38100T (380V) SPN 6916T (three-phase 690V 16A)
2. Signal line/ communication line CDN as per IEC61000-4-5 (A) 4-line communication line CDN (B) 8-line communication line CDN
3. Pulsed magnetic field converter PMC1200 as per IEC6100-4-9
4. Magnetic field coil TCXS111 single-turn coil TCXS113 three-turn coil 1MX1M IEC61000-4-8
5. HV differential probe, model VCF-80 test voltage: 8KV attenuation ratio: 1000: 1
6. HV current sensor model: TR410
7. PC control software EMSLab With PC installed WIN XP and WIN7, 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.



CONNECT 3CTEST

SUZHOU3CTEST ELECTRONIC CO., LTD

Unit 2, Anda Industrial park, Jinshan Rd, SND, Suzhou, 215011, China
Tel: +86-512-68413700/3800/3900
Fax: +86-512-68079795
Web: www.3ctest.cn
Email: info@3ctest.cn

SHENZHEN OFFICE

Room 402, the 4th floor, Fuan Technology Building, No.13,
Nanshan Technology Park, 518053, Shenzhen, China
Tel: +86-755-86626625/ 86344313
Fax: +86-755-26966255

HONGKONG OFFICE

One Commerce Center, 1201 Orange st, #600 Wilmington,
New Castle, DE19899, USA
Tel: +852-98289428
Email: protechk@protec-power.com Web: www.protec-power.com

Europe: AR Europe

Yvonne McGlinchey
ymcglinchey@ARWorld.US
+353 61 504300
Address: First Floor Ashling Building, National Technology
Park, Limerick, Ireland

BEIJING OFFICE

Room D206, D block, Keshi Building, No.28, Shangdixinx
Road, Haidian District, Beijing
Tel: +86-10-82899948/ 82899984
Fax: +86-10-82899943

CHENGDU OFFICE

Room 516, Unit 3, Ideal Centre, No.38 Tianyi Street, SND,
6100085, Chengdu, China
Tel: +86-28-85327800/85327600
Fax: +86-28-85311400

TAIWAN OFFICE

6F-5, No.130, Ln. 235, Baoqiao Rd,
Xindian District, New Taipei City, 23145, Taiwan
Tel: +886-2-89121185
Email: rich.tec@msa.hinet.net