

Combination Wave Surge Simulator

CWS 600CT

Datasheet



In Compliance with

- > IEC 61000-4-5
- > EN/IEC 60255-5
- > GB/T 17626.5

Introduction

CWS 600CT Combination Wave Surge Simulator is specially designed to simulate surge pulses interference and produces high voltage pulse waveforms 1.2/50us、8/20us、10/700us、5/320us. It can fully meet IEC 61000-4-5 standard requirements. CWS 600CT can also meet CE and CCC requirements and perform surge tests with external coupling/decoupling network.

Features

- > 5.7 inch color touch screen operation on the front panel
- > Max. up to 6.0 kV
- > Produces 1.2/50 us、8/20 us、10/700 us、5/320 us high voltage pulse waveforms to meet IEC 61000-4-5
- > Compliance with 500 ohm output impedance 1.2/50 us impulse withstand voltage test
- > Surge voltage and current monitoring and LCD display
- > Test scheduling function and easy operation
- > Optional for external fully automatic CDN
- > Optional for external magnetic coil and module to meet IEC 61000-4-9

Application Areas

- > Communication
- > Information technology
- > Telecommunication
- > Military
- > Medical
- > Aviation
- > Broadcast and TV
- > New energy and Power
- > Railway
- > Electric Vehicle

General parameters	
Display screen	5.7inch TFT Touch Screen
Range of working power supply	AC 110 V/220 V, $\pm 10\%$, 50/60 Hz $\pm 5\%$ (AC 220 V / 50 Hz for China)
Fuse	6 A
Max. Power dissipation	200 W
User storage space	Infinity (PC)
Communication mode	Ethernet、RJ45
External control mode	BNC,5 VTTL
CRO trigger output	BNC,5 VTTL
Run control input	BNC,5 VTTL
External Sync input	45-65 Hz, 20-500 V between dotted end and no dot end 0-500 V among dotted end, no dot end and crate
Output of Warning lamp	0-220 V AC 10 A/0-48 V DC 3 A The power supply depends on the types of external signal lamp
Safety circuit	Stop working when the safety loop is open circuit.
Failure detection	LCD will display the failure on the front panel and interrupt instrument working.
Instrument working status indicator	LED on the front panel indicates and LCD displays
Instrument grounding connection	Use flat ground wire
EUT power input	4mm ² banana plug wire
Detection output mode	Standard 1m coaxial cable
Size of crate (W*H*D)	19 inch/6U
Weight	Approx.34 kg
Temperature range	15–35 °C
Humidity range	45%-75%
Air pressure range	86 kPa ~ 106 kPa

1.2/50us, 8/20us technical parameters	
Standards	IEC/EN 61000-4-5、GB/T 17626.5、UL 1449 、 ANSI C62.41
Test voltage range	0.3 kV–6.0 kV $\pm 10\%$
Voltage rise time	1.2 us $\pm 30\%$
Voltage duration	50 us $\pm 20\%$
Test current range	0.15 kA–3.0 kA $\pm 10\%$ (2 ohm)
Current rise time	8 us $\pm 20\%$
Current duration	20 us $\pm 20\%$
Output impedance	2 ohm、12 ohm optional
Other impedance	500 ohm 1.2/50 us pulse withstand voltage test
Test interval	6 s-99 s (the shortest time depends on the test voltage)
Voltage peak detection	Front panel BNC output:1000 V:1 V; LCD display the measured value
Current peak detection	Front panel BNC output::500 A:1 V; LCD display the measured value
Test times	1–999
Trigger mode	Auto, manual and external trigger input
Test mode	Scheduling setting test parameters
CDN	Optional for external SPN series CDN

10/700us, 5/320us technical parameters

Standards	IEC/EN 61000-4-5、GB/T 17626.5 UL 1449、ANSI C62.41
Test voltage range	0.3 kV – 6.0 kV± 10%
Voltage rise time	10 us± 20%
Voltage duration	700 us± 20%
Current rise time	5 us± 20%
Current duration	320 us± 20%
Output impedance	15 ohm、40 ohm optional
Test interval	11 s-99 s (the shortest time depends on the test voltage)
Voltage peak detection	Front panel BNC output:1000 V:1 V
Current peak detection	Front panel BNC output:500 A:1 V
Test times	1–999
Trigger mode	Auto, manual and external trigger input
Test mode	Scheduling setting test parameters
CDN	Optional for external CDN-405 series CDN

Optional functions and accessories

1. Surge 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 line/Communication line CDN IEC61000-4-5 (A) 4-wire communication line CDN (B) 8-wire communication line CDN
3. Pulse magnetic field converter PMC1200 IEC 61000-4-9
4. Magnetic coil : TCXS111 single-turn coil 1 m×1 m IEC61000-4-8 TCXS113 three-turn coil 1 m×1 m IEC61000-4-8
5. HV Differential probe, VCF-80 test voltage 8 KV, attenuation 1000: 1
6. Wide-band Current Monitor: CM 0220M



MAINLAND CHINA

SUZHOU 3CTEST ELECTRONIC CO., LTD.
Add.: No. 99 Emeishan Rd, SND, Suzhou 215153,
Tel: +86 (0)512 6807 7192
Fax: +86-512-68079795
Email: globalsales@3ctest.cn
www.3c-test.com

TAIWAN

RICHTEC INSTRUMENTS CO., LTD.
Add.: 6F.-5, No.130, Ln. 235, Baoqiao Rd., Xindian
Dist., New Taipei City 23145, Taiwan, China
Tel: +886 2 8912 1185 #10
Email: ryan@richtec.com.tw
www.richtec.com.tw

SOUTH KOREA

TESTEK Co., LTD.
Add.: 601Ho, SungwoonKoa, 141 Hyeonam-ro,
Suji-Gu, Yongin-Si, Gyeonggi-Do, South Korea.
Tel: +82 70 4099 2071,
E-mail: woo@testek.co.kr
www.testek.co.kr

SINGAPORE

QUANTEL PTE LTD.
Add.: 25 Kallang Ave, #05-02, 339416, Singapore
Tel: +65 6745 3200
Email: engtat.ong@sg.quantel-global.com
www.quantel-global.com

USA

THE EMC SHOP
Add.: 7401 Galilee Rd. #160, Roseville, CA 95678,
USA
Tel: +1 844 423 7435
Email: brendon.berg@theemcshop.com
www.theemcshop.com

RUSSIA

CDIP LLC
Add.: Room 7, Building 5, House 69, Ryabinovaya
Street, Moscow 121471, Russia
Tel: +7 (495) 956 20 22
Email: info@cdip.ru
www.cdip.ru



3ctest is always striving for product innovation and quality improvement.
Product appearance and technical specifications are subject to change without further notice.

© 3ctest