

# **Combination Wave Simulator**

# **CWS 120CT**



# In Compliance With

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

### Introduction

CWS 120CT is a high-end testing equipment specially designed to simulate the phenomenon of low-voltage surge pulse interference. It is suitable for testing surge protection devices (such as TVS tubes, TSPDs, SIDAC, surge suppressors, etc.), and can also be used for wafer or package level surge immunity testing. The output voltage range is adjustable from 1V to 1200V, and the technical parameters fully meet the requirements of IEC/EN 61000-4-5 and GB/T 17626.5 standards. The CWS 120CT design is based on the third-generation intelligent control platform, which has advantages such as high system integration, intelligent control, easy operation, and saving testing time.

### **Features**

- > 5.7 inch color touch screen front panel operation;
- > Complies with IEC/EN61000-4-5 and GB/T 17626.5 standards;
- > Output voltage from 1 V to 1200 V;
- > Standard source output impedance 2 Ω, 12 Ω, 42 Ω:
- > The output impedance of the communication wave source is 15  $\Omega$  and 40  $\Omega$ ;
- > Built in four types of coupling and decoupling networks;
- > EUT load capacity 40 V DC 10 A;
- > Real time display of output peak voltage and current peak size;
- > Test scheduling function, easy to operate;
- > Ethernet, RJ45 interface, used for PC remote control and printing test reports;
- > PC control software CoreLab is optional.

# Application Areas Communication > Military Telecom > Railway Medical > Avionics Broadcast > Electric Power Railway > New Energy Power

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Complies With IEC 61000-4-5 Surge		
Immunity Test		
1.2/50 μs 8/20 μs Technical Parameters		
Test Voltage	$1  \text{V} - 1200  \text{V}  \pm  10\%$	
Range		
Voltage	Front time: 1.2 $\mu$ s $\pm$ 30%	
Waveform	Half peak time: 50 μs ± 20%	
Test Current	$0.5 \text{ A-}600 \text{ A} \pm 10\% (2 \Omega)$	
Range		
Current	Front time: 8 $\mu$ s $\pm$ 20%	
Waveform	Half peak time: 20 μs ± 20%	
Output	2 Ω、12 Ω、42 Ω	
Impedance		
Polarity	Positive, negative, alternating	
	positive and negative	
Pulse Period	1-9999 s	
Number Of	1-9999 times	
Experiments		
Trigger Method	Automatic, manual, external	
	triggering	
Experimental	Schedule experimental	
Mode	parameters	
Coupling/	C/L、D/L、C/D、D/D	
Decoupling	C represents capacitance, L	
Methods	represents inductance, and D	
FUT Caussin =	represents diode	
EUT Carrying	40 V DC 10 A	
Capacity	Dealessaltana and made a	
Display	Peak voltage and peak current	
	display function	

General Parameters	
Display Screen	5.7 inch TFT color touch screen
Working Voltage Range	AC 110 V/220 V, ±10%, 50/60 Hz
Fuses	6 A
Maximum Power Consumption	200 W
Communication methods	Ethernet
Instrument Working Status Indication	Front panel LED indication, LCD display
Failure Detection	When the failure occurs, the front panel LCD displays and interrupts instrument operation
Chassis Size (Width * Height * Depth)	4U chassis (450 mm*190 mm*620 mm)
Weight	Approximately 25 kg
Environment Temperature	15°C ~ 35°C
Relative Temperature	45% ~ 75%
Barometric Pressure	86 kPa∼106 kPa

Complies With IEC 61000-4-5 Surge Immunity Test		
10/700 μs 5/320 μs Technical Parameters		
Test Voltage	1 V - 1200 V ±10%	
Range		
Voltage	Front time: 10 $\mu$ s $\pm$ 30%	
Waveform	Half peak time: 700 μs ± 20%	
Test Current	$0.025\mathrm{A}$ - 30 A $\pm$ 10%	
Range		
Current	Front time: 5 $\mu$ s $\pm$ 20%	
Waveform	Half peak time: 320 $\mu$ s $\pm$ 20%	
Output	15 Ω、40 Ω	
Impedance		
Polarity	Positive, negative, alternating	
	positive and negative	
Pulse Period	1-9999 s	
Number Of	1-9999 times	
Experiments		
Trigger	Automatic, manual, external	
Method	triggering	
Experimental	Schedule experimental	
Mode	parameters	

# **Standard Accessories**

Test line, Power line, Fuse, Flat grounding wire, Inspection report, Instruction Manual

# **Options**

PC control software CoreLab
Supports Windows 7, Windows 8, Windows 10
and Windows 11, with convenient use,
beautiful and intuitive user interface, and
various operational functions and standard
test libraries that allow users to easily
complete custom testing programs; Test
equipment and perform automatic
configuration to help users flexibly generate
test reports.

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