



Combination Wave Lightning Surge Simulator

CWS 600 Series

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

Features

- > 5.7-inch color touch screen front panel operation;
- > Surge failure detection function;
- > Surge voltage and current measurement and acquisition;
- > Test scheduling function;
- > Built in fully automatic single-phase coupling/decoupling network AC 300 V 20 A/32 A, DC 300 V 20 A/32 A;
- > Can control external three-phase coupling/decoupling network and other functional modules;
- > Ethernet and RJ45 interfaces, used for PC remote control and printing test reports.

Introduction

The CWS 600 series is an intelligent multifunctional combination immunity (EMS) testing equipment that can meet various testing requirements such as surge immunity, communication waves, and pulse magnetic fields according to international standards and product series standards. The testing voltage can reach up to 6 kV.

The CWS 600 series is the best choice for fully compatible immunity testing solutions. Meets the anti-interference testing requirements of EU CE certification and CCC certification for single-phase test equipment, with a built-in fully automatic single-phase coupling/decoupling network, and can also perform three-phase five wire test equipment testing through an automatically controlled external coupling/decoupling network (up to 400 A). We provide you with various testing accessories to meet various application needs such as power frequency magnetic field testing.

Application Areas



General Parameters

Display	5.7-inch TFT touch screen
Scope of Working Power Supply	100 ~ 264 V AC, 47 ~ 63 Hz
Fuse	6 A
Maximum Power Consumption	300 W
Communication Method	Ethernet LAN
External Control Mode	25 needle parallel thread
External Trigger Input	BNC, 5 V TTL
CRO Triggers Output	BNC, 5 V TTL
Operation Control Input	BNC, 5 V TTL
Pulse Triggering Method	Manual, automatic, externally triggered
External Synchronous Input	20 ~ 400 V, 45 ~ 65 Hz
Warning Light Output	Multi core connector output, matched with external alarm light module (optional)
Safety Circuit	Short circuit of safety loop, stop working when the safety loop is open circuit
Failure Detection	When it fails, the front panel LCD displays and interrupts the instrument's operation
Instrument Working Status Indication	LED indication, LCD display
Instrument Grounding Connection Method	Use a flat grounding wire
Chassis Size	6U L * W * H: 620 * 450 * 280 mm
Instrument Weight	About 50 kg
Environmental Scope	15°C ~ 35°C
Pressure Range	86 kPa ~ 106 kPa
Humidity Range	45% ~ 75%

Built in coupling /decoupling network (single-phase fully automatic)

EUT Carrying Capacity	AC 300 V 20 A/32 A (optional) 50/60 Hz
	DC 300 V 20 A/32 A (optional)
EUT Power Input and Output	4mm banana plug cable
EUT Voltage Monitoring Output	BNC output, 100 V: 1 V
EUT Current Monitoring Output	BNC output, 10 A: 1 V
Synchronization Method	Internal synchronization, external synchronization, asynchronous
Internal Synchronization	0°~360°, 1° step setting or random mode
1.2/50 μs Combined Wave Coupling/decoupling	Built in single-phase automatic coupling/decoupling network
Note: The CWS 600 (S) configuration only has a source, while the CWS 600 (S-300-20) comes with a built-in coupling decoupling network	

IEC-61000-4-5 Surge Immunity Test

Test Voltage	0.25 kV ~ 6 kV $\pm 10\%$
Test Current	0.125 kA ~ 3 kA $\pm 10\%$
Voltage Waveform	1.2 $\mu\text{s} \pm 30\%$, 50 $\mu\text{s} \pm 20\%$
Current Waveform	8 $\mu\text{s} \pm 20\%$, 20 $\mu\text{s} \pm 20\%$
Output Impedance	2 Ω , 12 Ω
Test Interval Time	6 ~ 99 s(the shortest depends on the test voltage)
Number of Experiments	1~999 times
Experimental Mode	Optional scheduling mode
Polarity	Positive, negative, alternate
Calibration Capacitor	18 μF built-in
Coupling Resistance	0 Ω , 10 Ω
Coupling Capacitor	Built in at 9 μF and 18 μF
Surge Voltage Peak Detection	LCD display, BNC output 1000 V: 1 V
Surge Current Peak Detection	LCD display, BNC output 500 A: 1 V




IEC-61000-4-5 Communication Wave Test

Test Voltage	0.25 kV ~ 6 kV ($\pm 10\%$)
Test Current	6.25 A ~ 150 A $\pm 10\%$
Voltage Waveform	10 $\mu\text{s} \pm 30\%$, 700 $\mu\text{s} \pm 20\%$
Current Waveform	5 $\mu\text{s} \pm 20\%$, 320 $\mu\text{s} \pm 20\%$
Output Impedance	15 Ω , 40 Ω
Test Interval Time	6 ~ 99 s(the shortest depends on the test voltage)
Number of Experiments	1~999 times
Experimental Mode	Optional scheduling mode
Polarity	Positive, negative, positive/negative
Note: CWS 600 (T) should be selected for communication waves	

CWS 600 Selection Guide List

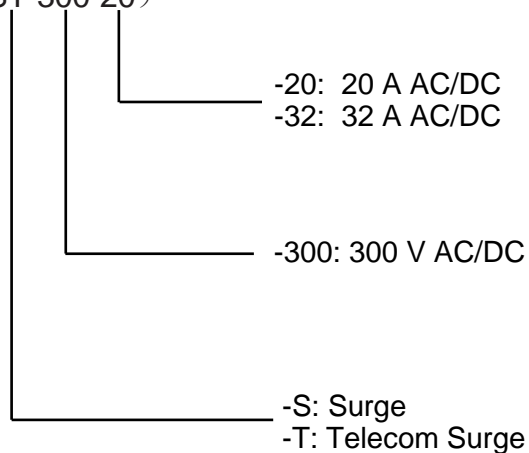
Generator	1.2/50 μ s	10/700 μ s	CDN single-phase three wire network
Compact immunity test system CWS 600(ST-300-20)	✓	✓	✓
Compact immunity test system CWS 600(S-300-20)	✓		✓
Compact immunity test system CWS 600(S)	✓		
Compact immunity test system CWS 600(T)		✓	
Optional module			
Lightning surge coupling/Decoupling network SPN xxxxT10 series	✓		Can be customized according to EUT voltage and current level requirements
Non shielded symmetrical high-speed communication line lightning surge coupling decoupling network CDN 405T8A1	✓	✓	
Non shielded symmetrical high-speed communication line lightning surge coupling decoupling network CDN 405T8-C	✓		

List of Testing and Measurement Selection Guidelines

Instrument name and model		1.2/50 μ s	10/700 μ s
	Differential probe VCF-80	✓	✓
	Broadband current monitoring clamp CM 0220M	✓	✓
	10 kV surge calibration capacitor module CCM 1000	✓	✓
	Immunity testing software CoreLab	✓	✓

Naming Rules

CWS 600 (ST-300-20)



Note: External network and other accessories have independent models and are not reflected in the host model;
-300-20/32 represents the presence of a built-in coupling decoupling network.

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