

# Combination Wave Surge Simulator

# CWS 1089A

## Datasheet



### In Compliance with

> GR-1089-CORE Issue 6 (2011)

### Introduction

Combination wave surge simulator CWS 1089A is designed on the basis of 3ctest's 3<sup>rd</sup> generation intelligent multifunctional testing system, strengthened with programmable controllers, and boasts integrated system, stable system performance, superior human-machine interaction functions, and simple, easy operation.

The simulator is capable of generating waveforms of 2/10  $\mu$ s, 10/360  $\mu$ s, 10/1000  $\mu$ s according to GR-1089-CORE Issue 6 (2011), and up to 5 output terminals can be used at the same time.

### Features

- > 5.7" color touch screen front panel
- > PC automatic control system
- > Capable of generating wide range of waveforms:  
2/10  $\mu$ s, 10/360  $\mu$ s, 10/1000  $\mu$ s
- > Ethernet RJ 45 interface

### Application Areas

- > IT
- > Telecom

Technical Parameters - 2/10 $\mu$ s (5 terminals)				
	800 V	1,500 V	2,500 V	5,000 V
Open-Circuit Voltage	200 V – 800 V (+20%)	200 V – 1,500 V (+20%)	200 V – 2,500 V (+20%)	200 V – 5,000 V (+20%)
Short-Circuit Current	25 A – 100 A per line	13.33 A – 100 A per line	40 A – 500 A per line	20 A – 500 A per line
Rising Edge Time	1 $\mu$ s – 2 $\mu$ s	1 $\mu$ s – 2 $\mu$ s	1 $\mu$ s – 2 $\mu$ s	1 $\mu$ s – 2 $\mu$ s
Pulse Duration	2 $\mu$ s – 9 $\mu$ s	2 $\mu$ s – 9 $\mu$ s	2 $\mu$ s – 9 $\mu$ s	2 $\mu$ s – 9 $\mu$ s
Repetition Frequency	1 / 8 s at 800 V	1 / 11 s at 1,500 V	1 / 6 s at 2,500 V	1 / 23 s at 5,000 V

Technical Parameters - 10/360 $\mu$ s (5 terminals)		
	1,000 V	1,000 V
Open-Circuit Voltage	50 V – 1,000 V (+15%)	50 V – 1,000 V (+15%)
Short-Circuit Current	1.25 A – 25 A per line	5 A – 100 A per line
Rising Edge Time	7.5 $\mu$ s – 10 $\mu$ s	7.5 $\mu$ s – 10 $\mu$ s
Pulse Duration	250 $\mu$ s – 358 $\mu$ s	250 $\mu$ s – 358 $\mu$ s
Repetition Frequency	1 / 20 s at 1,000 V	1 / 20 s at 1,000 V

Technical Parameters - 10/1000 $\mu$ s (3 terminals)		
	1,000 V	1,000 V
Open-Circuit Voltage	100 V – 1,000 V (+15%)	100 V – 1,000 V (+15%)
Short-Circuit Current	10 A – 100 A per line	16.6 A – 166.6 A per line
Rising Edge Time	6 $\mu$ s – 10 $\mu$ s	6 $\mu$ s – 10 $\mu$ s
Pulse Duration	1,000 $\mu$ s – 1,500 $\mu$ s	1,000 $\mu$ s – 1,500 $\mu$ s
Repetition Frequency	1 / 51 s at 1,000 V	1 / 51 s at 1,000 V

General Parameters	
Output Polarity	+, -
Operating Power Supply	AC 110 V / 220 V $\pm$ 10%, 50 Hz / 60 Hz
Triggering Method	Automatic / Manual; can be set as single-time triggering
Operating Temp.	15°C - 35°C
Operating Humidity	45% - 75% (no condensation)
Dimension	35 U, 620 x 450 x 1,800 mm
Weight	Approx. 200 kg

Standard Accessories	
Testing Wire	1 set
Warranty	1 pc
Factory Test Report	1 pc
User Manual	1 pc



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