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VCS 500N12

COMBINATION WAVE SIMULATOR

FOR TESTS ACCORDING TO ...

› EN 61000-4-5
› EN 61000-4-9
› IEC 60255-22-5
› IEC 61000-4-5
› IEC 61000-4-9
› IEC 61326
› IEC 61850-3
› ITU-T K.12
› ITU-T K.20
› ITU-T K.45

COMBINATION WAVE SIMUALTOR

Surge pulses occur due to direct or indirect lightning strokes to an external (outdoor) circuit. This leads to currents or electromagnetic fields causing high voltage or current transients. Another source for surge pulses are switching transients originating from switching disturbances and systems faults.
Due to the characteristic of the phenomenon nearly every electrical and electronical device may suffer from such lightning events which justifies the necessity of surge tests being widely performed. Surge voltage can reach several thousands of volts and surge current is seen to reach several thousands of amps.

HIGHLIGHTS

- **Surge pulses up to 12kV/6kA**
- **Single phase or three-phase coupler up to 100A (external option)**
- **Fail inputs**
- **Warning lamp control**
- **Emergency interlock**
- **Standard Test routines**

APPLICATION AREAS

- INDUSTRY
- TELECOM
- COMPONENTS
- RESIDENTIAL
- MEDICAL
- BROADCAST

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TECHNICAL DETAILS

COMBINATION WAVE 1.2/50US - 8/20US	
Voltage (o.c.)	500V - 12,000V ±10%
Rise time	1.2us ± 30%
Pulse time to half value	50us ± 20%
Current (s.c.)	max. 6,000A ±10%
Rise time	8us ± 20%
Pulse time to half value	20us ± 20%
Polarity	Positive/negative/alternating
Event counter	1 - 30,000 or endless

TRIGGER	
Trigger of events	Automatic, manual, external
CRO trigger	5V trigger signal for oscilloscope
Synchronization	0° - 360°, resolution 1°
Repetition rate	6s - 999s, depending on the voltage

PULSE OUTPUT	
Direct	Via HV-connectors: - Zi = 2ohm - To connect external surge couplers

MEASUREMENTS	
CRO Û-monitor	10Vp at 12,000V
CRO Î-monitor	10Vp at 6,000A
Peak voltage	12,000V in the LCD display
Peak current	6,000A in the LCD display

TEST ROUTINES	
Quick Start	Immediate start; easy-to-use and fast
User Test routines	Change Polarity after n pulses Change voltage after n pulses
Standard Test routines	As per IEC 61000-4-5 Manual Standard Test routine
Service	Service, set-up, self test

INTERFACE	
Serial interface	USB
Parallel interface	IEEE 488, addresses 1 - 30
CN interface	To control external coupling matrix

SAFETY	
Safety circuit	Control input (24Vdc)
Warning lamp	Floating output contact

GENERAL DATA	
Dimensions, weight	19"/6HU, approx. 35kg
Supply voltage	115/230V +10/-15%
Fuses	2xT2AT (230V) or 2xT4AT (115V)

COUPLING/DECOUPLING NETWORKS FOR POWER LINES	
CNV 501S6	1phase coupling/decoupling network for surge; 250V/16A
CNV 501S7	1phase coupling/decoupling network for surge; 250V/32A
CNV 503S14	3phase coupling/decoupling network for surge; 3x440V/16A
CNV 503S15	3phase coupling/decoupling network for surge; 3x440V/32A

COUPLING/DECOUPLING NETWORKS FOR SIGNAL/TELECOM LINES	
CNV 504N	4 signal lines as per fig. 11 & 12, IEC 61000-4-5
CNV 504S1	4 telecom lines as per fig. 14, IEC 61000-4-5
CNV 508N	8 signal lines as per fig. 11 & 12, IEC 61000-4-5
CNV 508S1	8 telecom lines as per fig. 14, IEC 61000-4-5

PULSED MAGNETIC FIELD AS PER IEC 61000-4-9	
MS 100N	Magnetic field coil for up to 3,200A/m

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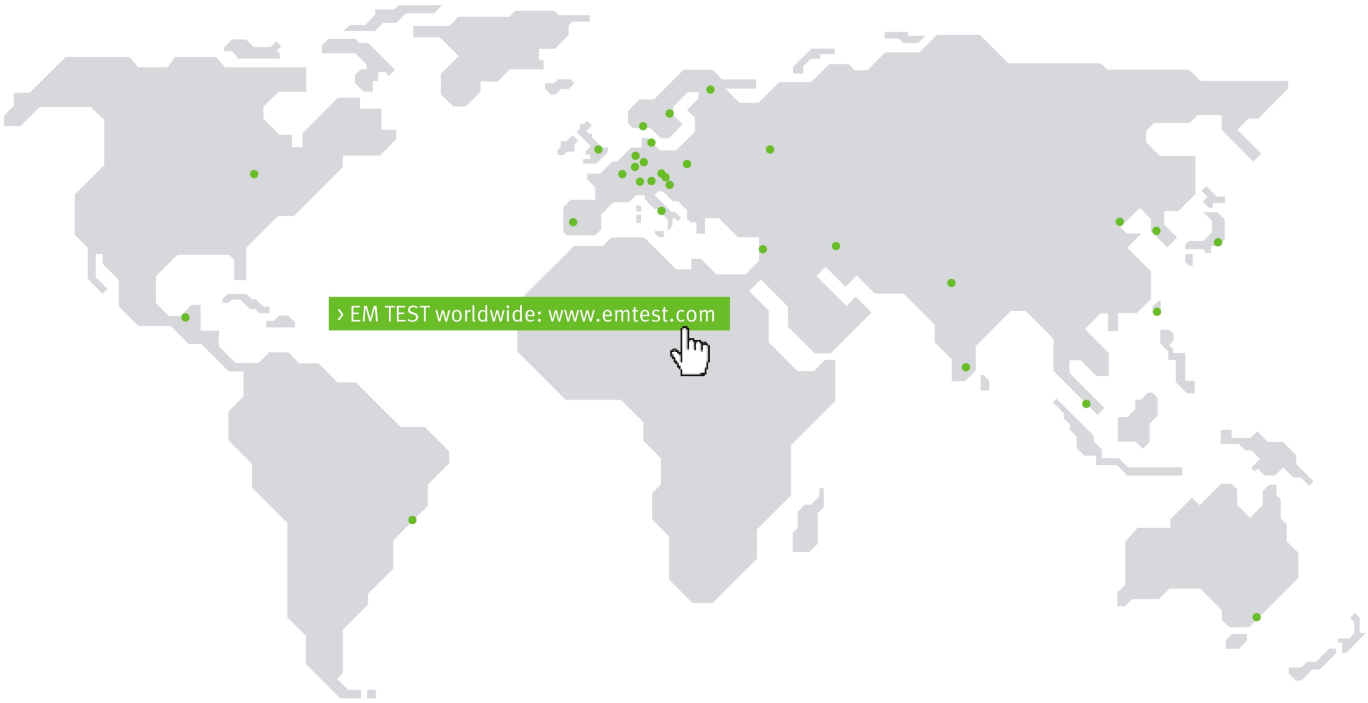
COMPETENCE WHEREVER YOU ARE



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