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VCS 500M8

COMBINATION WAVE SIMULATOR

FOR TESTS ACCORDING TO ...

› IEC 61000-4-5
› IEC 61000-4-9
› IEC 61326
› IEC 61850-3
› ITU-T K.12
› ITU-T K.20
› ITU-T K.21
› ITU-T K.45

COMBINATION WAVE SIMULATOR

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 VOLTAGE UP TO 8KV
› SURGE CURRENT UP TO 4KA
› VOLTAGE/CURRENT MONITORS
› BUILT-IN 1PH OR 3PH CDN 16A
› INTERLOCK
› WARNING LAMP CONTROL
› MANUAL OPERATION

APPLICATION AREAS

INDUSTRY
TELECOM
COMPONENTS
RESIDENTIAL
MEDICAL
BROADCAST

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TECHNICAL DETAILS

COMBINATION WAVE 1.2/50US - 8/20US	
Voltage (o.c.)	250V - 8,000V ± 10%
Pulse front time	1.2us ± 30%
Pulse time to half value	50us ± 20%
Current (s.c.)	max. 4,000A ± 10%
Pulse front 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	9s - 999s, depending on the voltage

OUTPUT	
Direct	Via HV-connector; Zi = 2ohm To connect external surge coupler
CDN 1-M8 option	Built-in single phase coupler, 16A
DUT supply	AC: 250V/16A; 50/60Hz DC: 250V/10A
CDN 3-M8 option	Built-in 3-phase coupler, 16A
DUT supply	3 x 440VAC / 16A; 50/60Hz DC: 250V/10A
CDN 3-M8S1 option	Built-in 3-phase coupler, 32A
DUT supply	3 x 440VAC / 32A; 50/60Hz DC: 250V/20A
Coupling mode	Line to line with 2ohm Line(s) to PE with 12ohm

MEASUREMENTS	
Peak voltage	8,000V in the LCD display
Peak current	4,000A 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, Level 1,000V - Level 4,000V Manual Standard Test routine
Service	Service, setup, self test

INTERFACE	
Serial interface	USB
Parallel interface	IEEE 488, addresses 1 - 30

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	2x2AT (230V) or 2x4AT (115V)

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TECHNICAL DETAILS

COUPLING/DECOUPLING NETWORKS FOR AC/DC POWER LINES	
CNI 503A10	3phase coupling/decoupling network for EFT and Surge; 3x440V/16A
CNI 503A12	3phase coupling/decoupling network for EFT and Surge; 3x440V/32A
CNI 503A13	3phase coupling/decoupling network for EFT and Surge; 3x440V/63A
CNI 503A14	3phase coupling/decoupling network for EFT and Surge; 3x440V/100A
CNV 501S4	1phase coupling/decoupling network for Surge only; 250V/16A
CNV 503S6	3phase coupling/decoupling network for Surge only; 3x440V/63A
CNV 503S7	3phase coupling/decoupling network for Surge only; 3x440V/100A
CNV 503S14	3phase coupling/decoupling network for Surge only; 3x440V/200A

COUPLING/DECOUPLING NETWORKS FOR SIGNAL/TELECOM LINES	
CNV 504S1	4 telecom lines as per fig. 12, IEC 61000-4-5
CNV 504A	4 signal lines as per fig. 10 & 11, IEC 61000-4-5
CNV 508S1	8 telecom lines as per fig. 12, IEC 61000-4-5
CNV 508A	8 signal lines as per fig. 10 & 11, IEC 61000-4-5

PULSED MAGNETIC FIELD AS PER IEC 61000-4-9	
Antenna	MS 100 for up to 5,000 A/m

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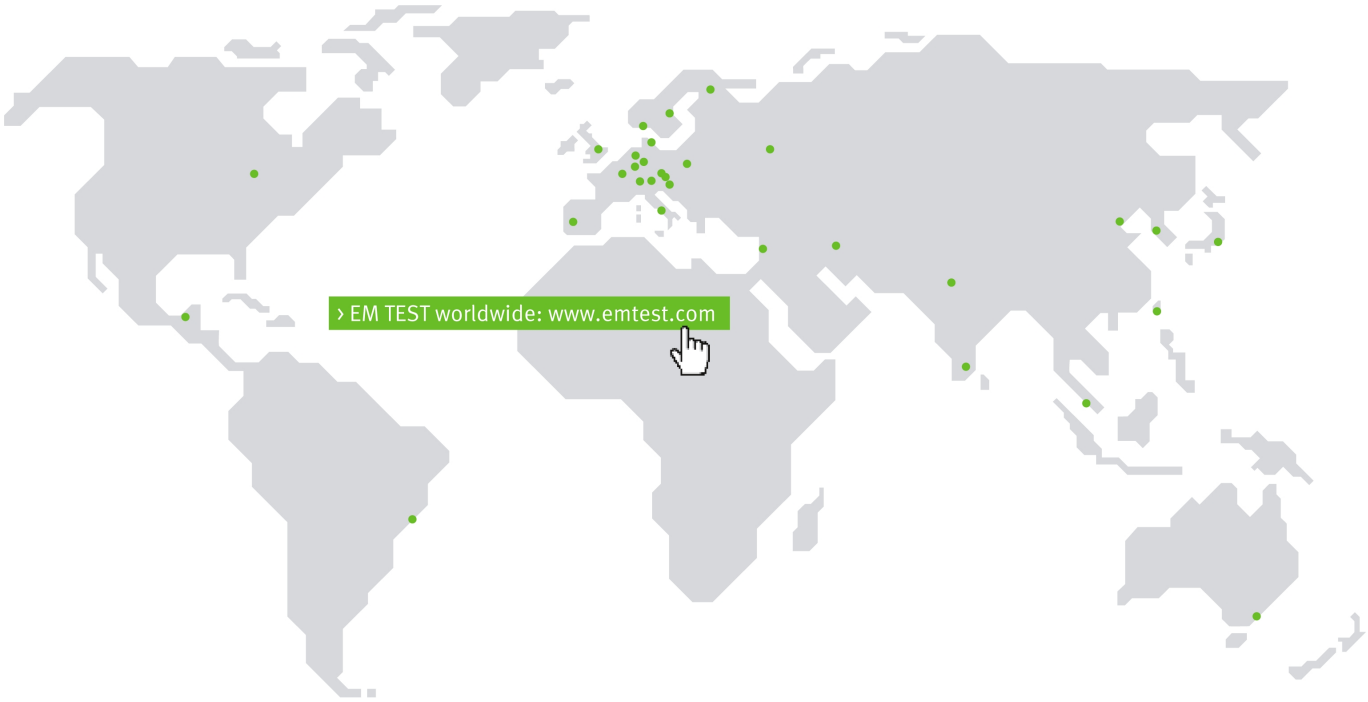
COMPETENCE WHEREEVER YOU ARE



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