

# VSS 500N6 SERIES

## VOLTAGE SURGE GENERATOR



### FOR TESTS ACCORDING TO ...

- › EN 60255-27
- › EN 60255-5
- › IEC 60255-27
- › IEC 60255-5
- › IEC 60747-5
- › IEC 61180-1
- › IEC 62052-11

### VOLTAGE SURGE SIMULATION

The surge simulator type VSS 500N6 generates high voltage transients as required by IEC 60255-27 with a source impedance of 500ohm for transient overvoltage tests on "Protection Relays". The output voltage ranges up to 6.6kV, covering for tests levels 1 to 5.

The no-load waveshape corresponds to IEC-61180-1. For this kind of testing the IEC 60255-27 standard requires a fixed energy of 0.5 J at each test level.

### HIGHLIGHTS

- › Surge pulse 1.2/50 us up to 6.6 kV
- › 5 different test levels, (1 & 5 kV; IEC 60255-27)
- › Source impedance 500ohm
- › Constant Energy of 0.5J at each test level
- › Peak voltage/current measurement
- › Spark-over detection
- › Interlock
- › Warning lamp control

### APPLICATION AREAS

-  COMPONENTS
-  INDUSTRY
-  RESIDENTIAL

## TECHNICAL DETAILS

### MODEL OVERVIEW

#### MODELS VSS 500N6 SERIES

VSS 500N6.3	0.55kV, 1.0kV, 1.5kV, 5.0kV, 6.6kV
VSS 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV

### TECHNICAL DETAILS

#### VOLTAGE SURGE SIMULATOR, PULSE 1.2/50 US

Voltage (o.c.)	250 V - 6,600 V $\pm 10\%$
Pulse front time	1.2 $\mu\text{s} \pm 30\%$
Pulse time to half value	50 $\mu\text{s} \pm 20\%$
Source impedance	500 Ohm
Energy	0.5 J $\pm 0.05$ J at each test level
Pulse forming	As per IEC 60255-27 (previous -5)
Polarity	Positive, negative or 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	6 s - 999 s, depending on the voltage

#### TEST LEVELS

VSS 500N6.3	0.55kV, 1.0kV, 1.5kV, 5.0kV, 6.6kV
VSS 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV

#### OUTPUT

Direct	Via HV connector; $Z_i = 500$ Ohm To connect external test boxes or devices
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#### MEASUREMENTS

Peak voltage	6,600 V in the LCD display
Peak current	13 A in the LCD display

### TECHNICAL DETAILS

#### TEST ROUTINES

Quick Start	Immediate start; easy-to-use and fast
User Test routines	Change Polarity after n pulses Change voltage after n pulses Change phase angle after n pulses
Standard Test routines	As per IEC 60255-27, Level 1 - 5
Service	Service, set-up, self test

#### INTERFACE

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

#### SAFETY

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

#### GENERAL DATA

Dimensions, weight	19"/3HU, 16.1 kg
Supply voltage	115/230 V $\pm 10/-15\%$
Fuses	2 x 2 AT (230V) or 2 x 4 AT (115V)

#### ENVIRONMENT

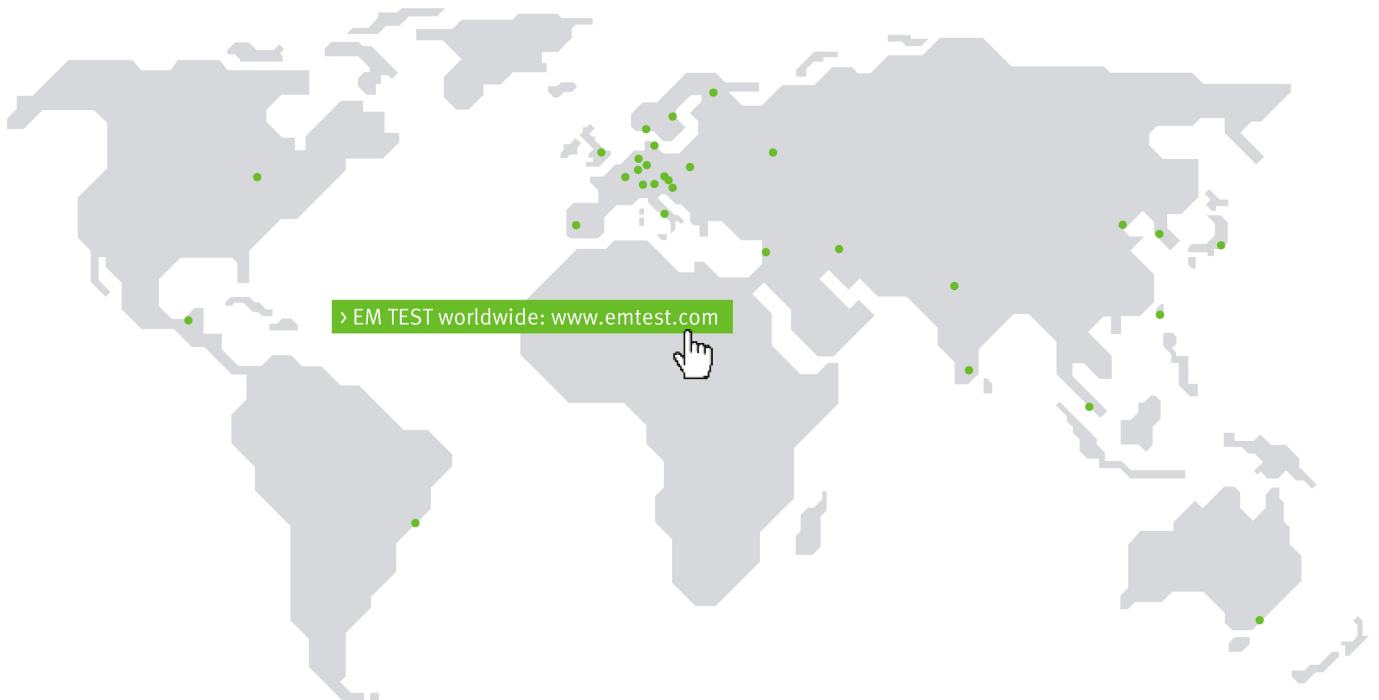
Temperature	10 °C to 35 °C
Humidity	30 % to 75 %, non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)

### OPTIONS

#### OPTIONS

HV Contacts	Pair of gun-type HV contacts for safe application of the HV pulses to the EUT
iec.control	Remote control and documentation software, including standard test routines and reporting capabilities.

# COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.