

VSS 500N6.4

VOLTAGE SURGE GENERATOR



FOR TESTS ACCORDING TO ...

- › ANSI/IEEE C37.90
- › 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 the 1000 V and 5000 V test levels.

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

VSS 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV
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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 μ s \pm 30 %
Pulse time to half value	50 μ 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 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV
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OUTPUT

Direct	Via HV connector; Zi = 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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