

# VSS 500N15.3

## VOLTAGE SURGE SIMULATOR WITH 0.5J CONSTANT ENERGY



### FOR TESTS ACCORDING TO ...

- > EN 60255-27
- > EN 60255-5
- > IEC 60255-27
- > IEC 60255-5
- > IEC 61180-1
- > IEC 62052-11

### VOLTAGE SURGE SIMULATION

The surge simulator type VSS 500N15.3 generates high voltage transients as required by IEC 60255-27 with a source impedance of 500 ohm for transient overvoltage tests on "Protection Relays". The output voltage ranges up to 15 kV, divided into two voltage ranges (up to 6.6kV and up to 15kV).

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

- > Test pulse 1.2/50  $\mu$ s up to 15 kV as per EN/IEC 60255-27
- > 7 different test levels
- > Source impedance 500 ohm
- > Constant energy of 0.5 J at each test level
- > Peak voltage measurement
- > Peak current measurement
- > Interlock

### APPLICATION AREAS

-  COMPONENTS
-  INDUSTRY
-  RESIDENTIAL

## TECHNICAL DETAILS

## VOLTAGE SURGE SIMULATOR, PULSE 1.2/50 US AS PER EN/IEC 60255-27

## TECHNICAL DATA

Voltage (o.c.)	250 V - 15,000 V ± 10 %
Front time	1.2 us ± 30 %
Time to half value	50 us ± 20 %
Source impedance	500 ohm
Energy	0.5 J ± 0.05 J at each test level
Test level	0.55, 1.0, 3.0, 5.0, 6.6, 9.3 and 14 kV
Pulse forming	As per IEC 60255-27, (replaces -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
Synchronisation	0° - 360°, resolution 1°
Repetition rate	1 s - 999 s, depending on the voltage

## OUTPUT

Direct	Via HV connector; Zi = 500 ohm To connect external test boxes or devices
Output 1	500V - 6,600 V
Output 2	6,600 - 15,000 V

## MEASUREMENTS

Peak voltage	15,000 V in the LCD display
Peak current	30.0 A 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, Change phase angle after n pulses
Standard Test Routines	As per IEC 60255-27
Service	Service, setup, self test

## INTERFACE

Optical interface	Opto link, 3 m cable USB A connector
Parallel interface	IEEE 488, addresses 1 to 30

## SAFETY

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

## GENERAL DATA

Dimensions, weight	19"/6 HU, 24.9 kg
Supply voltage	115/230 V +10/-15 %
Fuses	2xT2 AT (230 V) or 2xT4 AT (115 V)

## OPTIONS

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

# COMPETENCE WHEREVER YOU ARE



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