

# VSS 500N15.1

## VOLTAGE SURGE SIMULATOR WITH 0.5J CONSTANT ENERGY



### FOR TESTS ACCORDING TO ...

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

### VOLTAGE SURGE SIMULATION

The surge simulator type VSS 500N15.1 generates high voltage transients as required by IEC 60255-5 with a source impedance of 500ohm for transient overvoltage tests on "Protection Relays". The output voltage ranges up to 15kV, 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 60255-5 standard requires a fixed energy of 0.5J at each test level.

### HIGHLIGHTS

- > **Test pulse 1.2/50µs up to 15kV as per EN/IEC 60255-5**
- > **7 different test levels**
- > **Source impedance 500 ohm**
- > **Constant energy of 0.5J at each test level**
- > **Peak voltage measurement**
- > **Peak current measurement**
- > **Interlock**

### APPLICATION AREAS

-  COMPONENTS
-  INDUSTRY
-  RESIDENTIAL

**TECHNICAL DETAILS**
**VOLTAGE SURGE SIMULATOR, PULSE  
1.2/50US AS PER EN/IEC 60255-5**
**TECHNICAL DATA**

Voltage (o.c.)	250V - 15,000V ± 10%
Front time	1.2us ± 30%
Time to half value	50us ± 20%
Source impedance	500ohm
Energy	0.5J ± 0.05J at each test level
Test level	0.55kV, 0.9kV, 3.00kV, 5.0kV, 6.6kV, 9.3kV and 14kV
Pulse forming	As per IEC 60255-5
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	1s - 999s, depending on the voltage

**OUTPUT**

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

**MEASUREMENTS**

Peak voltage	15,000V in the LCD display
Peak current	30.0A 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 60255-5
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 (24Vdc)
Warning lamp	Floating output contact

**GENERAL DATA**

Dimensions, weight	19"/6HU, 24.9 kg
Supply voltage	115/230V +10/-15%
Fuses	2xT2AT (230V) or 2xT4AT (115V)

**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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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.