VSS 500N12
VOLTAGE SURGE SIMULATOR

VOLTAGE SURGE SIMULATION

The voltage surge simulator VSS 500N12 generates high voltage transients as required by several IEC standards. The voltage surge pulses are used to test the isolation (voltage withstand) capability of components, sockets, connectors, cables and many other items.

Spark over detection and voltage/current measuring functions are included in the generator.

HIGHLIGHTS

- Surge voltage up to 12kV
- Wave form 1.2/50us
- Built-in source impedance
- Interlock
- Warning lamp control
- Voltage/current measurement
- Spark-over detection
- Manual operation

APPLICATION AREAS

COMPONENTS

RESIDENTIAL

FOR TESTS ACCORDING TO ...

- EN 60335-1
- IEC 384-14
- IEC 60060
- IEC 60335-1
- IEC 61180-1
- IEC 61180-2
- IEC 664
## TECHNICAL DETAILS

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (o.c.)</td>
<td>500V - 12,000V ± 10%</td>
</tr>
<tr>
<td>Pulse front time</td>
<td>1.2us ± 30%</td>
</tr>
<tr>
<td>Pulse time to half value</td>
<td>50us ± 20%</td>
</tr>
<tr>
<td>Current (s.c.)</td>
<td>max. 24A ± 10%</td>
</tr>
<tr>
<td>Int. resistor</td>
<td>500ohm ± 10% Optional 400ohm or 50ohm</td>
</tr>
<tr>
<td>Polarity</td>
<td>Positive/negative/alternating</td>
</tr>
<tr>
<td>Event counter</td>
<td>1 - 30,000 or endless</td>
</tr>
</tbody>
</table>

### TRIGGER

- **Automatic**
- **Manual** Single pulse release
- **External** External pulse release
- **CRO trigger** 5V trigger signal for oscilloscope
- **Synchronisation** 0° - 360°, resolution 1°
- **Repetition rate** max. 1Hz (1s - 999s)

### OUTPUT

- **Direct** Via HV connector; Zi = 500ohm or as per selected option (40ohm or 50ohm)

### MEASUREMENTS

- **CRO Ŭ-monitor** 10Vp at 12,000V
- **CRO I-monitor** 10Vp at 24A
- **Peak voltage** 12,000V in the LCD display
- **Peak current** 24A in the LCD display
- **Current limiter** Resolution 0.1A for Ri = 500ohm Resolution 1.0A for Ri = 40ohm

### TEST ROUTINES

- **Quick Start** Immediate start; easy-to-use and fast
- **User Test routines** Change Polarity after n pulses Change voltage after n pulses
- **Service** Service, setup, self test

### INTERFACE

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

### GENERAL DATA

<table>
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<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions, weight</td>
<td>19”/3HU, approx. 15kg</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>115/230V ± 10/-15%</td>
</tr>
<tr>
<td>Fuses</td>
<td>2 x T 2AT (230V) or 2 x T4AT (115V)</td>
</tr>
</tbody>
</table>

### 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. Technical data subject to change without further notice.