

VSS 500N12-SERIES

VOLTAGE SURGE SIMULATOR



FOR TESTS ACCORDING TO ...

- › EN 60335-1
- › IEC 384-14
- › IEC 60060
- › IEC 60335-1
- › IEC 60950-1
- › IEC 61180-1
- › IEC 61180-2
- › IEC 60664

VOLTAGE SURGE SIMULATION

The voltage surge simulator VSS 500N12-series 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
- › USB (optical link) and GPIB interface

APPLICATION AREAS

-  COMPONENTS
-  RESIDENTIAL

TECHNICAL DETAILS

MODEL OVERVIEW

VSS 500N12 MODELS	
VSS 500N12	12 kV Pulse generator, 1.2/50 us, as per IEC 60060, 500 ohm impedance and low energy
VSS 500N12.1	12 kV Pulse generator, 1.2/50 us, as per IEC 60335, 40 ohm impedance, energy 18 J
VSS 500N12.6	12 kV Pulse generator, 1.2/50 us, 50 ohm impedance, energy 18 J
VSS 500N12.7	12 kV Pulse generator, 1.2/50 us, as per IEC 60950, IEC 60950-1, ITU-T K.44, 13 ohm + 25 ohm impedance, special pulse circuit, see datasheet VSS500N12.7

TECHNICAL DATA

VOLTAGE SURGE SIMULATOR, PULSE 1.2/50 US	
Voltage (o.c.)	500 V - 12,000 V ± 3 %
Pulse front time	1.2 us ± 30 %
Pulse time to half value	50 us ± 20 %
Current (s.c.)	max. 24 A ± 10 %
Int. resistor	500 ohm ± 10 % (VSS 500N12) 40 ohm ± 10 % (VSS 500N12.1) 50 ohm ± 10 % (VSS 500N12.6)
Polarity	Positive/negative/alternating
Event counter	1 - 30,000 or endless

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

TECHNICAL DATA

OUTPUT	
Direct	Via HV connector; Zi = 500 ohm or as per selected model(40 ohm or 50 ohm)

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

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

GENERAL DATA	
Dimensions, weight	19"/3 HU, approx. 15 kg
Supply voltage	115/230 V +10/-15 %
Fuses	2 x 2 AT (230 V) or 2 x 4 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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