

VSS 500N12-SERIES

VOLTAGE SURGE SIMULATOR



FOR TESTS ACCORDING TO ...

- › EN 60335-1
- › IEC 384-14
- › IEC 60060
- › IEC 60335-1
- › IEC 60664
- › IEC 60950-1
- › IEC 61180-1
- › IEC 61180-2
- › IEC 62477-1

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



CONTACT EM TEST DIRECTLY

Switzerland

AMETEK CTS GmbH › Sternenhofstraße 15 › 4153 Reinach › Switzerland
Phone +41 (0)61 204 41 11 › Fax +41 (0)61 204 41 00
Internet: www.ametek-cts.com › E-mail: sales.conducted.cts@ametek.com

Germany

AMETEK CTS Europe GmbH › Customer Care Center EMEA › Lünener Straße 211
› 59174 Kamen › Germany
Phone +49 (0) 2307 26070-0 › Fax +49 (0) 2307 17050
Internet: www.ametek-cts.com › E-mail: info.cts.de@ametek.com

Poland

AMETEK CTS Europe GmbH › Biuro w Polsce › ul. Twarda 44 › 00-831 Warsaw › Poland
Phone +48 (0) 518 643 12
Internet: www.ametek-cts.com › E-mail: Infopolska.cts@ametek.com

USA / Canada

AMETEK CTS US › 52 Mayfield Ave › Edison › NJ 08837 › USA
Phone +1 732 417 0501
Internet: www.ametek-cts.com › E-mail: usasales.cts@ametek.com

P.R. China

E & S Test Technology Limited › Rm 913, Leftbank ›
No. 68 Bei Si Huan Xi Lu › Haidian District › Beijing 100080 › P.R. China
Phone +86 (0)10 82 67 60 27 › Fax +86 (0)10 82 67 62 38
Internet: www.emtest.com › E-mail: info@emtest.com.cn

Republic of Korea

EM TEST Korea Limited › #405 › WooYeon Plaza › #986-8 › YoungDeok-dong ›
Giheung-gu › Yongin-si › Gyeonggi-do › Korea
Phone +82 (31) 216 8616 › Fax +82 (31) 216 8616
Internet: www.emtest.co.kr › E-mail: sales@emtest.co.kr

Singapore

AMETEK Singapore Pte. Ltd › No. 43 Changi South Avenue 2 › 04-01 Singapore
48164
Internet: www.ametek-cts.com › E-mail: singaporesales.cts@ametek.com

Great Britain

AMETEK GB › 5 Ashville Way › Molly Millars Lane › Wokingham › Berkshire
RG41 2 PL › Great Britain
Phone +44 845 074 0660
Internet: www.ametek-cts.com

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