

Test Equipment Solutions Datasheet

Test Equipment Solutions Ltd specialise in the second user sale, rental and distribution of quality test & measurement (T&M) equipment. We stock all major equipment types such as spectrum analyzers, signal generators, oscilloscopes, power meters, logic analysers etc from all the major suppliers such as Agilent, Tektronix, Anritsu and Rohde & Schwarz.

We are focused at the professional end of the marketplace, primarily working with customers for whom high performance, quality and service are key, whilst realising the cost savings that second user equipment offers. As such, we fully test & refurbish equipment in our in-house, traceable Lab. Items are supplied with manuals, accessories and typically a full no-quibble 1 year warranty. Our staff have extensive backgrounds in T&M, totalling over 150 years of combined experience, which enables us to deliver industry-leading service and support. We endeavour to be customer focused in every way right down to the detail, such as offering free delivery on sales, presenting flexible technical + commercial solutions and supplying a loan unit during warranty repair, if available.

As well as the headline benefit of cost saving, second user offers shorter lead times, higher reliability and multivendor solutions. Rental, of course, is ideal for shorter term needs and offers fast delivery, flexibility, try-before-you-buy, zero capital expenditure, lower risk and off balance sheet accounting. Both second user and rental improve the key business measure of Return On Capital Employed.

We are based at Aldermaston in the UK from where we supply test equipment worldwide. Our facility incorporates Sales, Support, Admin, Logistics and our own in-house Lab.

All products supplied by Test Equipment Solutions include:

- No-quibble parts & labour warranty (we provide transport for UK mainland addresses).
- Free loan equipment during warranty repair, if available.
- Full electrical, mechanical and safety refurbishment in our 40GHz in-house Lab.
- Certificate of Conformance (calibration available on request).
- Manuals and accessories required for normal operation.
- Free insured delivery to your UK mainland address (sales).
- Support from our team of seasoned Test & Measurement engineers.
- ISO9001 quality assurance.

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VSS 500N6.4

VOLTAGE SURGE GENERATOR



FOR TESTS ACCORDING TO ...

- › ANSI/IEEE C37.90
- › EN 60255-27
- › EN 60255-5
- › IEC 60255-27
- › IEC 60255-5
- › IEC 60747-5
- › IEC 61180-1
- › IEC 62052-11

VOLTAGE SURGE SIMULATION

The surge simulator type VSS 500N6 generates high voltage transients as required by IEC 60255-27 with a source impedance of 500ohm for transient overvoltage tests on "Protection Relays". The output voltage ranges up to 6.6kV, covering for tests levels 1 to 5.

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 the 1000 V and 5000 V test levels.

HIGHLIGHTS

- › Surge pulse 1.2/50 us up to 6.6 kV
- › 5 different test levels, (1 & 5 kV; IEC 60255-27)
- › Source impedance 500ohm
- › Constant Energy of 0.5J at each test level
- › Peak voltage/current measurement
- › Spark-over detection
- › Interlock
- › Warning lamp control

APPLICATION AREAS

-  COMPONENTS
-  INDUSTRY
-  RESIDENTIAL

TECHNICAL DETAILS

MODEL OVERVIEW

MODELS VSS 500N6

VSS 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV
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TECHNICAL DETAILS

VOLTAGE SURGE SIMULATOR, PULSE 1.2/50 US

Voltage (o.c.)	250 V - 6,600 V $\pm 10\%$
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Pulse front time	1.2 $\mu\text{s} \pm 30\%$
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Pulse time to half value	50 $\mu\text{s} \pm 20\%$
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Source impedance	500 Ohm
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Energy	0.5 J ± 0.05 J at each test level
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Pulse forming	As per IEC 60255-27 (previous -5)
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Polarity	Positive, negative or alternating
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Event counter	1 - 30,000 or endless
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TRIGGER

Trigger of events	Automatic, manual, external
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CRO trigger	5V trigger signal for oscilloscope
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Synchronization	0° - 360°, resolution 1°
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Repetition rate	6 s - 999 s, depending on the voltage
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TEST LEVELS

VSS 500N6.4	0.55kV, 1.0kV, 3.0kV, 5.0kV, 6.6kV
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OUTPUT

Direct	Via HV connector; $Z_i = 500$ Ohm To connect external test boxes or devices
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MEASUREMENTS

Peak voltage	6,600 V in the LCD display
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Peak current	13 A in the LCD display
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TECHNICAL DETAILS

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, Level 1 - 5
Service	Service, set-up, self test

INTERFACE

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

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

Dimensions, weight	19"/3HU, 16.1 kg
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Supply voltage	115/230 V $\pm 10/-15\%$
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Fuses	2 x 2 AT (230V) or 2 x 4 AT (115V)
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ENVIRONMENT

Temperature	10 °C to 35 °C
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Humidity	30 % to 75 %, non condensing
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Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)
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OPTIONS

OPTIONS

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