

VSS 500N10.3

1.2/50US SURGE GENERATOR FOR SOLAR PANEL TESTING



FOR TESTS ACCORDING TO ...

- > EN 61730-1
- > EN 61730-2
- > IEC 60060
- > IEC 61730-1
- > IEC 61730-2
- > UL 1703




PV PANEL TESTING - 1.2/50US SURGE GENERATOR AS PER IEC/EN 61730

The surge generator type VSS 500N10.3 is specifically designed to generate high voltage transients as required by IEC/EN 61730-2 for safety testing of photo voltaic panels. The specified waveshape of 1.2/50us must be generated and maintained as specified across a broad range of capacitance the PV's do represent and as such the generator needs to be based on different pulse shaping networks to cope with the variable capacitive load of the panels depending on their size and design.

HIGHLIGHTS

- > Surge voltage up to 10kV
- > 7 different capacitance ranges selectable from 30nF to 180nF
- > Generator compliant to IEC/EN 61730-1/2
- > Peak voltage measurement
- > Interlock
- > Warning lamp control
- > Manual operation

APPLICATION AREAS

-  INDUSTRY
-  COMPONENTS
-  RESIDENTIAL
-  RENEWABLE ENERGY

TECHNICAL DETAILS

VSS 500N10.3 - 1.2/50US SURGE GENERATOR

VOLTAGE PULSE

Voltage (open circuit)	500V to 10,000V +/-10%
Front time	1.2us +/-30%
Time to half value	50us +/-20%
Pulse shaping networks	Depending on load capacitance
Capacitance ranges	30nF to 180nF in 7 ranges Range 35nF; 30nF to 40nF Range 45nF; 40nF to 50nF Range 55nF; 50nF to 65nF Range 72nF; 65nF to 85nF Range 100nF; 85nF to 110nF Range 130nF; 110nF to 140nF Range 160nF; 140nF to 180nF
Wave Shape	As per IEC 60060-1
Polarity	Positive/negative/alternating
Event counter	1 to 30,000 or endless, selectable

TRIGGER

Automatic	Automatic pulse release
Manual	Single pulse release
External	External pulse release
CRO trigger	5V trigger signal for oscilloscope
Pulse repetition rate	2s to 999s depending on the voltage min. 10s @ 10kV

OUTPUT

Direct	Via HV connector
	Direct connection to the DUT or via connection box

MEASUREMENTS

Peak voltage	10,000V in the LCD display
Peak current	In the LCD display

TEST ROUTINES

Quick Start	Immediate start; easy to use and fast
User Test Routines	Change polarity Change voltage
Standard Test Routines	IEC 61730-2 range 35nF IEC 61730-2 range 45nF IEC 61730-2 range 55nF IEC 61730-2 range 72nF IEC 61730-2 range 100nF IEC 61730-2 range 130nF IEC 61730-2 range 160nF
Service	Service, set-up, 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, approx. 22kg
Supply voltage	115V/230V +10%/-15%
Fuses	2 x T2AT (230V) or 2 x T4AT (115V)

ACCESSORIES

Scope of delivery	2*1m HV leads, one end open, Mains supply cable (depends on country), Operation manual
PV Test Kit	Set of test accessories including - Connection box - Cables - Copper tape, self-adhesive

OPTIONS

iec.control 1	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. Technical data subject to change without further notice.