

# 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, 448 x 288 x 550 mm, 22.75 kg
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



## CONTACT EM TEST DIRECTLY

### Switzerland

EM TEST (Switzerland) GmbH › Sternenhofstraße 15 › 4153 Reinach › Switzerland  
Phone +41 (0)61/7179191 › Fax +41 (0)61/7179199  
Internet: [www.emtest.ch](http://www.emtest.ch) › E-mail: [sales.emtest@ametek.com](mailto:sales.emtest@ametek.com)

### Germany

AMETEK CTS Germany GmbH › Lünener Straße 211 › 59174 Kamen › Deutschland  
Phone +49 (0)2307/26070-0 › Fax +49 (0)2307/17050  
Internet: [www.emtest.com](http://www.emtest.com) › E-mail: [info.cts@ametek.de](mailto:info.cts@ametek.de)

### France

EM TEST FRANCE › Le Trident - Parc des Collines › Immeuble B1 - Etage 3 › 36, rue Paul Cézanne › 68200 Mulhouse › France  
Phone +33 (0)389 31 23 50 › Fax +33 (0)389 31 23 55  
Internet: [www.emtest.fr](http://www.emtest.fr) › E-mail: [info@emtest.fr](mailto:info@emtest.fr)

### Poland

EM TEST Polska › ul. Ogrodowa 31/35, 00-893 Warszawa › Polska  
Phone +48 (0)518 64 35 12  
Internet: [www.emtest.com/pl](http://www.emtest.com/pl) › E-mail: [infopolska.emtest@ametek.com](mailto:infopolska.emtest@ametek.com)

### USA / Canada

AMETEK Compliance Test Solutions › 52 Mayfield Ave. › Edison › NJ 08837  
Phone +1 (732) 417-0501  
Internet: [www.emtest.com](http://www.emtest.com) › E-mail: [sales.emtest@ametek.com](mailto:sales.emtest@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](http://www.emtest.com) › E-mail: [info@emtest.com.cn](mailto: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](http://www.emtest.co.kr) › E-mail: [sales@emtest.co.kr](mailto:sales@emtest.co.kr)

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.