

Photovoltaic Impulse Voltage Generator PVSG 3000

Datasheet



In compliance with

- > IEC 60060-1
- > IEC 61730-1
- > IEC 61730-2

Introduction

The photovoltaic impulse voltage generator PVSG 3000 is designed according to the requirements of IEC 61730-2: 2016 (MST14) impulse voltage test, which meets the requirements of 1.2/50 μ s waveform test of photovoltaic panels in the range of 20 nF - 170 nF. There are 11 gears to select, the test voltage is 2 kV ~30 kV, and the impulse voltage waveform parameters meet the requirements of IEC 60060-1 and GB/T 16927.1 standards.

Equipped with a capacitive load box for waveform calibration, which can simulate the capacitive load of photovoltaic panels. With the help of Corelab software, PVSG 3000 can remotely control the test process and generate calibration reports.

Features

- > Output voltage up to 30 kV ;
- > Suitable for 20 nF-170 nF capacitive load, 11 groups of gears to be selected;
- > As per IEC 61730-2 2016 MST14;
- > Built-in surge voltage measurement module, viewing waveform via oscilloscope is available;
- > Built-in peak voltage monitor function;
- > Ethernet, RJ45 interface for PC remote control and test report print;

Application Areas

- > New Energy Electric power

General Parameters	
Display Screen	5.7 TFT touch screen
Working Power	AC 110 V/220 V ($\pm 10\%$), 50 Hz /60 Hz (Default in mainland China: 220 V)
Fuse	6 A
Max. Power	200 W
Communication Mode	Ethernet LAN、RJ45
Safety Loop	Stop working when the safety circuit is not closed
Failure Detection	The failure information will be displayed on LCD in front panel when failure occurs and interrupt the working of instrument.
Earthing Mode	Flat earth line
Dimension	PVSG 3000 : 8U PVCL 3000A : 5U PVCL 3000B : 5U
Weight	PVSG 3000 : 44 kg PVCL 3000A : 29 kg PVCL 3000B : 30 kg
Ambient Temperature	15 °C ~ 35 °C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories
User Manual, Test line, short-circuit plug, Earth line, 3-core power line, fuses (Spare parts),PVCL 3000A&PVCL 3000B , Test Box

Optional Accessories
PC control software:Corelab Windows 7, Windows 8 and Windows 10 are supported, including various operating functions and standard libraries. Users can easily control the test equipment remotely, complete the test work, and automatically configure it to help users flexibly generate test reports.

Technical Parameters	
Standard	IEC 61730-2: 2016 MST14
Test Voltage	2 kV ~ 30.0 kV
Calibration voltage	4 or 8 kV ~ 30.0 kV $\pm 3\%$; Initial voltage Depend on the load capacitance
Rise Time	1.2 $\mu\text{s} \pm 30\%$
Duration	50 $\mu\text{s} \pm 20\%$
Polarity	Positive, negative
Waveform forming network	Following Load capacitance
Capacitance range	20 nF to 170 nF, total of 11 gears, manually selected (short plug) 20 nF – 25 nF, 22.5 nF $\pm 3\%$ 25 nF – 30 nF, 27.5 nF $\pm 3\%$ 30 nF – 35 nF, 32.5 nF $\pm 3\%$ 35 nF – 40 nF, 37.5 nF $\pm 3\%$ 40 nF – 50 nF, 45 nF $\pm 3\%$ 50 nF – 60 nF, 55 nF $\pm 3\%$ 60 nF – 75 nF, 67.5 nF $\pm 3\%$ 75 nF – 95 nF, 85 nF $\pm 3\%$ 90 nF – 115 nF, 105 nF $\pm 3\%$ 115 nF – 140 nF, 127.5 nF $\pm 3\%$ 140 nF – 170 nF, 155 nF $\pm 3\%$
Repetition Rate	8 s ~ 9999 s (The shortest time depends on test voltage)
Counter	1~ 9999
Trigger Mode	Manual, Auto, External Trigger
Measurement	Monitor via coaxial port on front panel: 10 V @ 30 kV
Peak Value Acquisition	Display on touch screen, MAX : 30 kV
Low-voltage Protection	When the pulse voltage does not reach the set value, the test process stops
Charging Display	Count-down display



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