Technical Specifications

Output voltage	Insulation resistance	PV insulation resistance	Accuracy
125V	<1.51MΩ	N/A	For reference only
	1.51MΩ~100.0MΩ		±(1.5%+5)
	100.1MΩ~1000MΩ		±(5%+6)
250V	<1.51MΩ	N/A	For reference only
	1.51MΩ~200.0MΩ		±(1.5%+5)
	200.1MΩ~2000MΩ		±(5%+6)
500V	<1.51MΩ	<1.51MΩ	For reference only
	1.51MΩ~1000MΩ	1.51MΩ~1000MΩ	±(1.5%+5)
	1001MΩ~4000MΩ	1001MΩ~4000MΩ	±(5%+6)
1000V	<1.51MΩ	<1.51MΩ	For reference only
	1.51MΩ~1000MΩ	1.51MΩ~1000MΩ	±(1.5%+5)
	1001MΩ~4000MΩ	1001MΩ~4000MΩ	±(5%+6)
Voltage measurement	DC Voltage	5~1000V DC	±(1%+4)
	AC Voltage	5~600V AC	±(1%+4)
Short circuit current	IR measurement	<1.5mA	
	PV IR measurement	<1.2mA	
Features			
Continue measurement (IR)	√(default setting)		
Time measurement	√		
Compare function (IR)	√		
Stepping voltage	√		
Auto discharge	√		
Energized device test	IR measurement: DO NOT test if the Energized device voltage is above 25V		
	PV IR measurement: the Energized device voltage should ≤ DC 1000V		
High voltage alarm	√		
Data storage	1000 set		
Data communication	transmission via USB cable		
	transmission via Bluetooth app		
Product dimension	161(L) x 117.3(D) x 63(H)mm		
IP	IP54 (with cap closed)		
CAT rating	CAT II 1000V, CAT III 600V		
Characteristics			
Product color	Red + grey		
Product weight	About 0.5KG (including battery)		
Product size	161(L) x 117.3(D) x 63(H)mm		
Standard package	Hard cloth bag + carton box		
SPQ	2		
Package size	360 x 230 x 290mm		

UNI-TREND TECHNOLOGY

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UT503PV

PV Insulation Tester

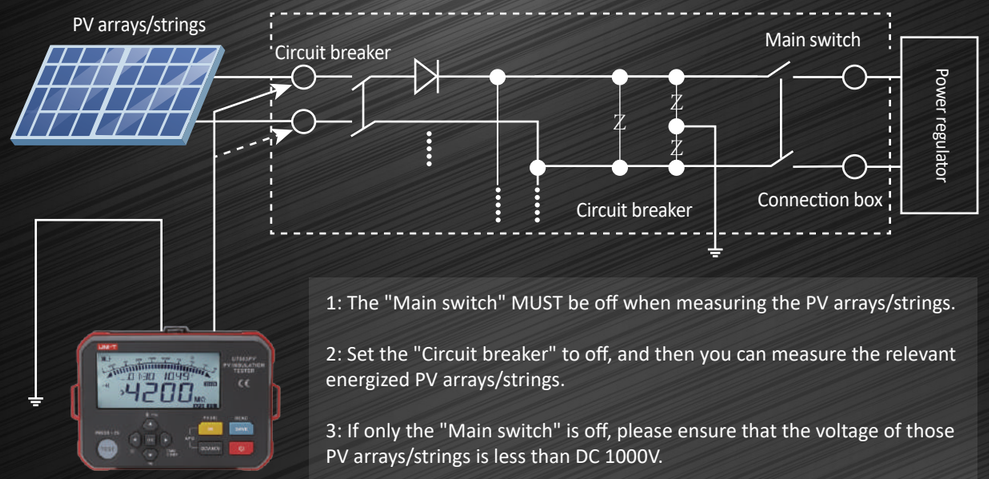
UT503PV has the function of measuring photovoltaic live insulation resistance (it can measure photovoltaic insulation resistance without power outage/short circuit of photovoltaic solar panels or at night, the maximum DC 1000V), ordinary insulation resistance function (non-live), AC and DC voltage automatic recognition measurement, stepping voltage, Bluetooth transmission, automatic discharge, high voltage live warning, remote control test pen operation test and other functions.

This product is often used in the insulation resistance test of photovoltaic power generation panels, battery energy storage, new energy vehicles, and other equipment.

High output voltage | Energized device test | Auto discharge | High voltage alarm | Lithium battery | Bluetooth app support

Multiple scenarios

PV (energized) insulation resistance measurement diagram



1: The "Main switch" MUST be off when measuring the PV arrays/strings.

2: Set the "Circuit breaker" to off, and then you can measure the relevant energized PV arrays/strings.

3: If only the "Main switch" is off, please ensure that the voltage of those PV arrays/strings is less than DC 1000V.

Energized device test (DC 1000V)

The maximum rate voltage between terminals is DC 1000V. Do not measure any energized equipment with a voltage of over DC 1000V, otherwise, it can cause electric shock or fault.

Auto discharge

After measurement, the output voltage is turned off, the Tester discharges electricity automatically at a fast speed, and the LCD holds the present measurement information and data.

High accuracy measurement

Achieve reliable results: Trust our device's high accuracy measurement capabilities.

Portable & Convenient

The operator has the capability to employ the tester for conducting measurements across various scenarios.