

PV150+

A fast and simple
PV tester



The PV150+ allows electrical safety and performance verification of modern photovoltaic installations.

The PV150+ is an upgraded version of the popular PV150, designed to better support the testing of PV modules with recent technology advances and associated higher efficiencies.

Combines ground continuity, DC operating power and operating current test functions. It can also test insulation resistance, open circuit voltage and short circuit current at the push of a button.

Why buy the PV150+?

- > Improved capacitive induced in-rush protection by a factor of 300%
- > Combines PV commissioning tests required by IEC 62446.
- > Enables the user to safely test energized PV arrays
- > Easy to use, single key testing and measurement operation
- > On-board data storage and USB connectivity for data export

Key Features:

- > Ground (earth) continuity measurement with test lead null for long test-leads
- > PV string open circuit voltage measurement up to 1000V DC with polarity indication
- > PV string short circuit current measurement up to 15A DC
- > PV array insulation test at 250/500/1000V
- > Tests individual PV modules or strings

Together, we're making our world a safer place.
Every. Single. Day.

T: +44 (0) 191 587 8741 E: sales@seaward.com



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What's in the box?

- > PV150+
- > 2x MC4 test lead adaptors
- > 2x Combiner box test probes and detachable alligator clips (MC4)
- > AC/DC current clamp
- > Solar Survey 200R irradiance meter and temperature probe
- > Solar Survey 200R mounting bracket
- > Rugged carry bag
- > Quick Start Guide
- > UKAS Calibration Certificate
- > SolarCert PC Software

Optional Accessories:

- > Solar Power Clamp
- > MC4 fused / unfused test leads

Technical Specification:

Open Circuit Voltage Measurement (PV Terminals)

Display Range	0.0VDC - 1000VDC
Measuring Range	5.0VDC - 1000VDC
Resolution	0.1VDC maximum
Accuracy	± (0.5 % + 2 digits)
Enunciators	DC voltage polarity correct or reversed

Short Circuit Current Measurement (PV Terminals)

Display Range	0.00ADC - 15.00ADC
Measuring Range	0.50ADC - 15.00ADC
Maximum Power	10kW
Resolution	0.01ADC maximum
Accuracy	± (1% + 2 digits)

Earth Continuity Resistance Measurement (4mm Terminals)

Test Voltage Open Circuit	>4VDC, nominal
Test Current into 2 Ω	>200mA
Display Range	0.00Ω - 199Ω
Measuring Range (EN 61557-4)	0.05Ω - 199Ω
Resolution	0.01Ω maximum
Accuracy	± (2% + 5 digits)
Test Leads Zero	Zero up to 10Ω, by zero button
Visible Warning	≥30V AC or DC at inputs
Circuitry Protection	Test inhibited if ≥30V AC or DC at inputs
Repeat tests as per IEC61557-4	Approx 4000 1 second test

Insulation Resistance

(Auto Test Sequence, PV Terminals and Red 4mm Terminal)

Test Voltage Open Circuit	250V, 500V, 1000V (as per IEC61557-2)
Test Voltage Specification	-0% +20% (open circuit)
Test Voltage @ 1mA	>1mA into UN x (1000Ω/V)
Test Current Short Circuit	<2mA
Display Range	0.05MΩ - 199MΩ
Measuring Range (EN 61557-2)	0.05MΩ - 199MΩ
Resolution	0.01MΩ maximum
Accuracy	0.05MΩ - 100MΩ ± (5% + 5 digits) 101MΩ - 199MΩ ± (10% + 5 digits)
Visible Warning	≥ 30V AC or DC at inputs
Circuitry Protection	Test inhibited if ≥ 30V AC or DC at inputs
Repeat tests as per IEC61557-4	Approx 3000 1 second tests

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Rpe Voltage Measurement (4mm Terminals)

Display Range	30V - 440VAC/DC
Voltage Measuring Range	30V - 440VDC
	30V - 440VAC 50-60Hz
Resolution	1V
Accuracy	± (5% + 2 digits)

Operating Current (via AC/DC Current Clamp)

Display Range	0.1A - 40.0A
Current Measuring Range	0.1A - 40.0A DC
	0.1A - 40.0A AC 50-60Hz
Resolution	0.1A
Accuracy	± (5% + 2 digits)

DC Operating Power (via AC/DC Current Clamp and PV Terminals)

Display Range	0.00kW - 40kW
Measuring Range	0.50kW - 40kW
Resolution	0.01kW
Accuracy	± (5% + 5 digits)

General Specification

Instrument Dimensions and Weight

Weight	1.1kg
Dimensions	26.4 x 10.7 x 8cm
Display	Custom LCD with backlight
Power Source	6 x 1.5V AA cells
Battery life	>1000 test sequences
Auto power down	User programmable
Onboard memory	Up to 200 complete test datasets

Connectivity

USB download to PC (CSV format)
Wireless "Solarlink TM" to Survey 200R (range ~30m/100ft)

Software compatibility

Compatible with SolarCert software (English language only)

Service

2 year warranty (subject to terms and conditions, available at seaward.com/register)

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