

PV150

Solar Installation Test Kit



The world's first all-inclusive solar PV specific installation electrical safety testing kit, now with Solarlink™ and USB connectivity.

The PV150 Solar Installation Test Kit includes all of the tools needed to determine the electrical safety and performance of photovoltaic installations in line with MCS and BS EN 62446 requirements.

The kit is based around the Solar Installation PV150, which combines all test functions required to meet MCS and BS EN 62446 into one safe, easy-to-use, hand-held device. The addition of USB and wireless Solarlink™ connectivity makes the PV150 the most versatile, safe and technically advanced solar PV tester on the market.

Transforming the way that PV systems are tested, the PV150 replaces the three separate instruments which are ordinarily used for commissioning tests; combining earth continuity, insulation resistance, open circuit voltage, short circuit current, operating current (using supplied AC/DC current) and DC operating power test functions into one handheld unit. The kit includes MC4 and Sunclix test adaptors which enable quick, safe and easy connection of the tester to the PV modules, strings or array.

As well as a comprehensive range of electrical test functions, the PV150 has memory to store up to 200 complete test records with USB connectivity to enable these to be quickly and easily downloaded to a PC. When coupled with Seaward's SolarCert Elements software program (supplied separately) professional test certificates and reports can be created.

The PV150 tester features new Solarlink™ connectivity which further improves the versatility of the instrument. Using Seaward Solarlink™, the PV150 can wirelessly capture and record real-time irradiance, ambient temperature and PV module temperature measurements from the Solar Survey 200R (supplied separately). This means that you can take all measurements, as required by MCS and BS EN 62446 standards, simultaneously.

KEY FEATURES:

- Combines all commissioning tests required by MCS and BS EN 62446
- Memory for up to 200 records
- USB download to PC
- Featuring new Seaward Solarlink™
- Single key testing and measurement
- Safe test connection with energised PV arrays
- Earth continuity measurement
- Earth test lead null (up to 10Ω) for long test-lead
- PV string open circuit voltage measurement up to 1000V DC
- Open circuit voltage polarity indication
- PV string short circuit current measurement up to 15A DC
- PV array insulation test at 250/500/1000V
- Rugged and robust



TECHNICAL SPECIFICATION:

EARTH CONTINUITY

Display Range	0.00 Ω to 199 Ω
Measuring Range	0.01 Ω to 199 Ω
Resolution	0.01 Ω maximum
Open Circuit Test Voltage	4VDC, nominal
Short Circuit Test Current	>200mA (as per IEC 61557-4)
Test Lead Compensation	Null out up to 10 Ω
User Protection	Warning and test inhibited if $\geq 30V$ AC/DC detected at inputs

INSULATION RESISTANCE

Display Range	0.05M Ω to 199M Ω
Measuring Range	0.05M Ω to 199M Ω
Resolution	0.01M Ω maximum
Open Circuit Test Voltage	250V, 500V, 1000VDC (as per IEC 61557-2)
Short Circuit Test Current	>1mA, <2mA s/c as per IEC 61557-2
Visible Warning	$\geq 30V$ AC or DC at inputs

OPEN CIRCUIT VOLTAGE

Display Range	0.0VDC to 1000VDC
Measuring Range	5.0VDC to 1000VDC
Resolution	0.1V maximum
Enunciators	DC voltage polarity correct or reversed

SHORT CIRCUIT CURRENT

Display Range	0.0ADC – 15.00ADC
Measurement Range	0.5ADC – 15.00ADC
Resolution	0.01A

OPERATING CURRENT (USING AC/DC CURRENT CLAMP)

Display Range	0.0A – 40A
Measurement Range	0.5A – 40A
Resolution	0.1A max

DC OPERATING POWER

Display range	0.0kW – 40.0kW
Measurement ranges	0.1kW – 40.0kW
Resolution	0.1kW

DATALOGGING AND CONNECTIVITY

Datalogging	Up to 200 complete test datasets Download utility software included Compatible with SolarCert Elements software (version 1.1)
Connectivity	USB download to PC Wireless 'Solarlink™' to Survey 200R (range c. 100m / 330ft)

GENERAL SPECIFICATIONS

Display	Custom LCD with backlight
Power Supply	6 x 1.5V Alkaline LR06
Battery Life	>1000 test sequences
Auto Power Down	User programmable

ADDITIONAL INFORMATION

Warranty Period	2 years
Calibration Interval	1 year
	UKAS Calibration Certificate supplied as standard

Part No: 388A913

Rev 1

KIT INCLUDES:

- Seaward Solar Installation PV150 Tester
- 2 x MC4 test lead adaptors
- 2 x Sunclix test lead adaptors
- Test lead, red, with test probe and detachable alligator clip,
- Test lead, black, with test probe and detachable alligator clip
- AC/DC current clamp
- Rugged carry bag
- Quick Start Guide
- Support CD Rom
- UKAS Calibration Certificate

ACCESSORIES: (optional)

- MC3 test lead adaptors
- Tyco (TE) Sunlok test lead adaptors
- Fused test leads - 1 pair of fused red and black test probes with alligator clips
- SolarTags
- PV Inspection & Test Report and PV System Verification Certificate Pads

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