## MCS Solarlink<sup>™</sup> Test Kit



# A complete solution to the testing and measurement requirements of MCS MIS 3002.

The MCS Solarlink<sup>™</sup> Test Kit meets all of the commissioning test requirements of MCS and BS EN 62446. It combines the PV150 installation test kit with the advanced Solar Survey 200R multifunction irradiance meter; offering a complete solution to the requirements of MCS MIS 3002.

The kit includes all of the necessary equipment to measure the electrical safety and performance of PV systems as well as irradiance.

The PV150 installation tester 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 (uses 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 professional test certificates and reports can be created.

#### **KEY FEATURES:**

- The comprehensive PV150 tester conducts all of the electrical tests required by MCS at the touch of a button.
- Solarlink™ connectivity between the PV150 tester and the Solar Survey 200R multifunction irradiance meter enables irradiance to be displayed and for irradiance, module and ambient temperature to be recorded within the PV150 in real-time as electrical tests are conducted.
- USB download of stored test results and irradiance measurements speeds up the completion of documentation and improves traceability of results.
- Solar Survey 200R uses a temperature compensated reference cell for accurate and representative irradiance measurements.
- When combined with SolarCert Elements software, the MCS Solarlink™ Test Kit represents the complete solution in PV commissioning, containing all that is needed for testing and documenting installations to the requirements of MCS.

Using Seaward Solarlink<sup>™</sup> connectivity, the PV150 can wirelessly capture and record real-time irradiance, ambient temperature and PV module temperature measurements from the Solar Survey 200R multifunction irradiance meter. This means that you can take all measurements, as required by MCS and BS EN 62446 standards, simultaneously.

### Solarlink™ Connectivity





Solarlink™ connectivity enables irradiance to be displayed and for irradiance, module and ambient temperature to be recorded with the PV150 in real time as electrical tests are conducted.

#### **KIT INCLUDES:**

- PV150 solar installation tester
- Solar Survey 200R irradiance meter
- AC/DC current clamp
- Rugged carry bag
- 2 x MC4 test lead adaptors
- 2 x Sunclix test lead adaptors
- Red and Black Test leads, with test probe with detachable alligator clips
- Quick Start Guides
- Support CD-Rom
- PV150 UKAS Calibration Certificate
- Solar Survey 200R Calibration Certificate

#### TECHNICAL SPECIFICATION: PV150 Solar Installation tester

#### **EARTH CONTINUITY**

Display Range  $0.00\Omega$  to  $199\Omega$  Measuring Range  $0.01\Omega$  to  $199\Omega$  Resolution  $0.01\Omega$  maximum Open Circuit Test Voltage 4VDC, nominal

Short Circuit Test Current >200mA (as per IEC 61557-4)

Test Lead Compensation Null out up to  $10\Omega$ 

User Protection Warning and test inhibited if ≥ 30V AC/DC detected at

inputs

#### **INSULATION RESISTANCE**

 $\begin{array}{ll} \mbox{Display Range} & 0.05\mbox{M}\Omega\mbox{ to }199\mbox{M}\Omega\\ \mbox{Measuring Range} & 0.05\mbox{M}\Omega\mbox{ to }199\mbox{M}\Omega\\ \mbox{Resolution} & 0.01\mbox{M}\Omega\mbox{ maximum} \end{array}$ 

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 ≥ 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

#### **OPTIONAL ACCESSORIES:**

MC3 test lead adaptors

Tyco (TE) Solarlok test lead adaptors

Fused test leads - 1 pair of fused red and black test probes with alligator clips

SolarTags

#### **ALSO AVAILABLE:**

SolarCert Elements Test
Reporting & Certification
Software

Solar Power Clamp

PV Inspection & test report and PV system Verification Certificate pads

#### TECHNICAL SPECIFICATION: Solar Survey 200R Irradiance Meter

#### **IRRADIANCE**

Display Range  $0-1500 \text{ W/m}^{-2} \text{ or } 0-500 \text{ BTU/hr-ft}^2$ Measurement Range  $100-1250 \text{ W/m}^{-2} \text{ or } 30-400 \text{ BTU/hr-ft}^2$ 

Resolution 1 BTU/hr-ft² / 1W/m-²

#### **TEMPERATURE**

Display Range -30°C to +125°C
Measurement Ranges -30°C to +125°C

Resolution 1°

#### **COMPASS BEARING**

Display Range 0° to 360°
Measurement Ranges 0° to 360°
Resolution 1°

#### **INCLINOMETER**

Display Range 0° to 90°
Measurement Ranges 0° to 90°
Resolution 1°

#### **DATALOGGING AND CONNECTIVITY (SURVEY 200R ONLY)**

Datasets 5000

Sample Rate 1 to 60 minutes (user definable)

Datalogging Download utility software included

Compatible with SolarCert Elements software (version 1.1)

Connectivity USB download to PC

Wireless 'Solarlink' to PV150 (range c. 100m / 330 ft)

#### **GENERAL SPECIFICATIONS**

Display Custom LCD

Power Supply 2AA Alkaline Batteries
Battery Life >20,000 Readings
Auto power down After 2 minutes

#### **SERVICEABILITY**

Warranty 2 years Calibration 1 year

#### **ADDITIONAL INFORMATION**

Supplied with calibration certificate

MCS Solarlink™ Test Kit Part No: 388A915



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

UK Office Keison Products,

P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.

Tel: +44 (0)330 088 0560 Fax: +44 (0)1245 808399

Email: sales@keison.co.uk

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.