Environmental Meter PCE-PVA 100

Environmental meter with a measuring range of 0 ... 12 A DC / USB interface /Data memory for 100 measured characteristics / 4.8" LCD display /Battery operation for approx. 400 measurements / Optionally with ISO calibration certificate

The environmental meter is a useful tool to examine solar cells for their characteristics. With a DC voltage range of 0... 60V and a DC current range of 0... 12 A, the photovoltaic meter covers a large number of solar modules. The determined characteristic curves are saved directly on the solar module tester. Up to 100 measurements can be stored in the data memory of the photovoltaic meter. The stored measured values can then be read out and further processed on a PC with the associated software. In addition, it is possible to operate the photovoltaic meter completely via the software.

The environmental meter has two different measuring functions for determining the characteristics of a solar module. In the automatic mode, the characteristic curve is created with automatic parameters by the photovoltaic meter. This gives the operator a first impression of the state of the solar module. In manual mode, the start and end of the current value can be set on the photovoltaic meter. If the area of the solar module and the power of the incoming radiation are stored in W/m^2, the photovoltaic meter can calculate the efficiency and the fill factor of the cell. Another measuring function with the solar module tester is the one-point measurement. A specific current can be controlled and checked by the photovoltaic meter.

The LCD display of the environmental meter has a size of 4.8". This means that the characteristic curve and all measured values can be read off at the same time. In order to analyze the characteristic curve better, each individual measuring point on the photovoltaic meter can be approached. For a different view of the X and Y axes, you can switch between current, voltage and power by pressing a button on the photovoltaic meter.

Because of its many different functions, the environmental meter is the ideal measuring device to examine solar modules for their effectiveness. The radiation detector is therefore used in photovoltaic systems and research facilities for the further development of solar modules. The radiation detector can optionally be equipped with an ISO calibration certificate.

- Data memory for 100 measurements
- Measuring range 0 ... 12 A DC
- Three different test functions
- PC interface for data transfer
- Switchable graphic view
- Optionally with ISO calibration certificate

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Specifications

DC Voltage

Measuring range	0 ... 10 V
Resolution	0.001 V
Accuracy	±1 % ±(1 % of Vopen ±0.1 V)
Measuring range	10 ... 60 V
Resolution	0.1 V
Accuracy	±1 % ±(1 % of Vopen ±0.1 V)

Vopen: open voltage measurement on a solar module

Direct Current

Measuring range	0.01 ... 10 A
Resolution	1 mA
Accuracy	±1 % ±(1 % of Ishort ±9 mA)
Measuring range	10 ... 12 A
Resolution	10 mA
Accuracy	±1 % ±(1 % of Ishort ±0.09 A)

Ishort: short-circuit current of a solar cell

Further specifications

Adjustable photovoltaic area	0.001 ... 9999 m²
Adjustable irradiance	10 ... 1000 W/m²
Display	4.8“ LC display
Fuse	F250 V, 12 A
Data memory	100 measurements
Storage rate	0 ... 99 minutes
Battery life	ca. 400 linear measurements from 60 ... 0 V and 0 ... 12 A
Power supply battery	11.1 V, 3400 mAh lithium battery
Power supply mains adapter	Primary: 100 ... 240 V AC 50/60 Hz Secondary: 15 V DC / 3A
Degree of pollution	2
Temperature coefficient	0.1 % of the measuring range / °C / °F at temperatures <18 °C / 64 °F and >28 °C / 82 °F
Operating conditions	-20 ... 60 °C / -4 ... 140 °F <75 % RH, non-condensing
Dimensions	257 x 155 x 57 mm / 10.1 x 6.1 x 2.2 in
Weight	1160 g / 2.6 lbs

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