



ASIV-11 – Panel Light I-V Tester

The Panel Light I-V Tester (ASIV) is used to test photovoltaic panels or modules during their production. A flashlight illuminates the workpiece with similar light spectrum to that of the Sun, while the electric performance of the unfinished panel or the finished module is accurately measured. With the help of the tester the user can filter out refuse panels. Testing the final performance reveals changes made by alternations in the deposition recipe. This enables a constant improvement in the PV products of the user.



The Panel Light I-V Tester (ASIV-11)

The ASIV is a computer controlled device. A standard solar panel is used to calibrate the tester. It has two modes of operation: the go / no-go test and the detailed test. The latter measures maximum power with voltage and current values, open circuit voltage, short circuit current, fill factor, shunt and series resistance, and low light open circuit voltage. Low light level measurements can also be performed. The sample's temperature remains constant during the measurement.

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Specifications

Power:	6 kW
Tester W × L × H:	1600 × 2390 × 1665 mm
Total mass:	475 kg
Workpiece:	1245 × 635 mm (thickness: 3.0 ~ 3.3 mm)
Standard (go / no-go) test duration:	appr. 10 sec (depends on setup)
Flash light intensity:	user settable to 1600 W/m ²
Flash period:	400 ms
Number of samples per flash per channel:	4500

Features

Solar simulator with two dual-tube, high-quality xenon flash lamps
Spectral match Class B according to IEC 904-9
Auto setting of generated voltage limits, ranges, and number of curve points both in Standard (go / no-go test) and in Detailed (full test) mode.
Multi-flash measurement mode (for up to 200 flashes per test, user settable)
PV parameters as a function of light intensity
Pneumatically actuated sample temperature monitor
Irradiance monitor for real time light intensity measurement
Correction of data with respect to light intensity and module temperature
Target condition STC (1000 W/m ²)
Configurable other light intensity conditions (5 to 20 different intensities)
Controller unit consists of rack computer, keyboard, mouse, monitor, and printer
Data acquisition software that provides printable test reports and text files
European CE-compatible