

# Flashlight Solar Simulator Sol 7x15 i



OPTOSOLAR

- Measures IV characteristics of PV modules—maximum power, open circuit voltage, short circuit current—at standard test conditions (STC, IEC standard 60904-1)
- Simulated sunlight spectrally filtered to AM 1,5 global or AM 0, using Xenon flash-lamps, intensity adjustable
- Suited for laboratory measurements . Inverted setup (illumination from below) allows easy integration into production lines
- Temporal stability and spectrum at STC class A. Spatial uniformity +- 3%

## Light source:

- Xenon flashlamp, spectrally filtered to AM 1.5 or AM 0
- Light intensity 200W/m<sup>2</sup> - 1100 W/m<sup>2</sup> (AM0: 1400 W/m<sup>2</sup>)
- Active side of module faces down
- No module heating during measurement
- Module size 70cm x 150 cm
- Easy integration onto automated production lines

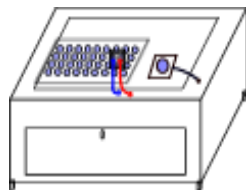
## Data acquisition

- Measurement ranges: 0-100 V, 0-10 A or as desired (four ranges each, multiplier 1-2-4-8)
- Data acquisition 12 bit, 16 bit option
- Generation of module serial number, classification of power, printout of measurement documents, module labels, data storage in data base.

## Measurement technology

- During the flash plateau, an electronic load (bipolar supply as option) scans the IV characteristic. Special option for high capacity modules
- Measurement period ca. 7-14 ms (adjustable for high capacity modules)
- Correction of data with respect to module temperature, irradiance. Target conditions STC or desired test conditions

## Illumination from below



Option PP additional settings to influence measurement process, MS Office™ professional for database connectivity, high precision and stability data acquisition, etc.

## Equipment dimensions:

- 200 cm x 120 cm x 90 cm (h) ( without PC), individual adaptations are possible
- Weight 200 kg

## Modul types

**(multi-) crystalline silicon, amorphous silicon , III/V semiconductors, CdTe, CIS.**  
**For thin film devices, measurement precision may be dependent on physical properties (e.g. time constants) of the constituent layers**

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