

Flashlight Simulator

Sol 3.3x3.3m²



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, using Xenon flashlamps, intensity adjustable
- Suited for laboratory measurements and integration into production lines
- Temporal stability and spectrum at STC class A. Spatial uniformity +/- 2-3%

AM 0 filtering optional

Light source:

- Xenon flashlamp, spectrally filtered to AM 1.5
- Light intensity 200W/m² - 1100 W/m² (AMO: 1400 W/m²)
- Illumination from front /from above
- No module heating during measurement
- Module sizes up to 330 cm x 330 cm

Data acquisition

- Measurement ranges: 0-200 V, 0-40 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 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 other desired test conditions



Option PP additional settings to influence measurement process, MS Office™ professional for database connectivity, high precision and stability data acquisition etc. Special database system for customer/project handling in BIPV

Equipment dimensions:

- Linear: 230 cm (h) x 100 cm x 100 cm (lamp and supply), or 60 cm x 60 cm x 60 cm (each lamp and supply), all without PC, individual adaptations are possible
- Weight 150 kg

Cell 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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