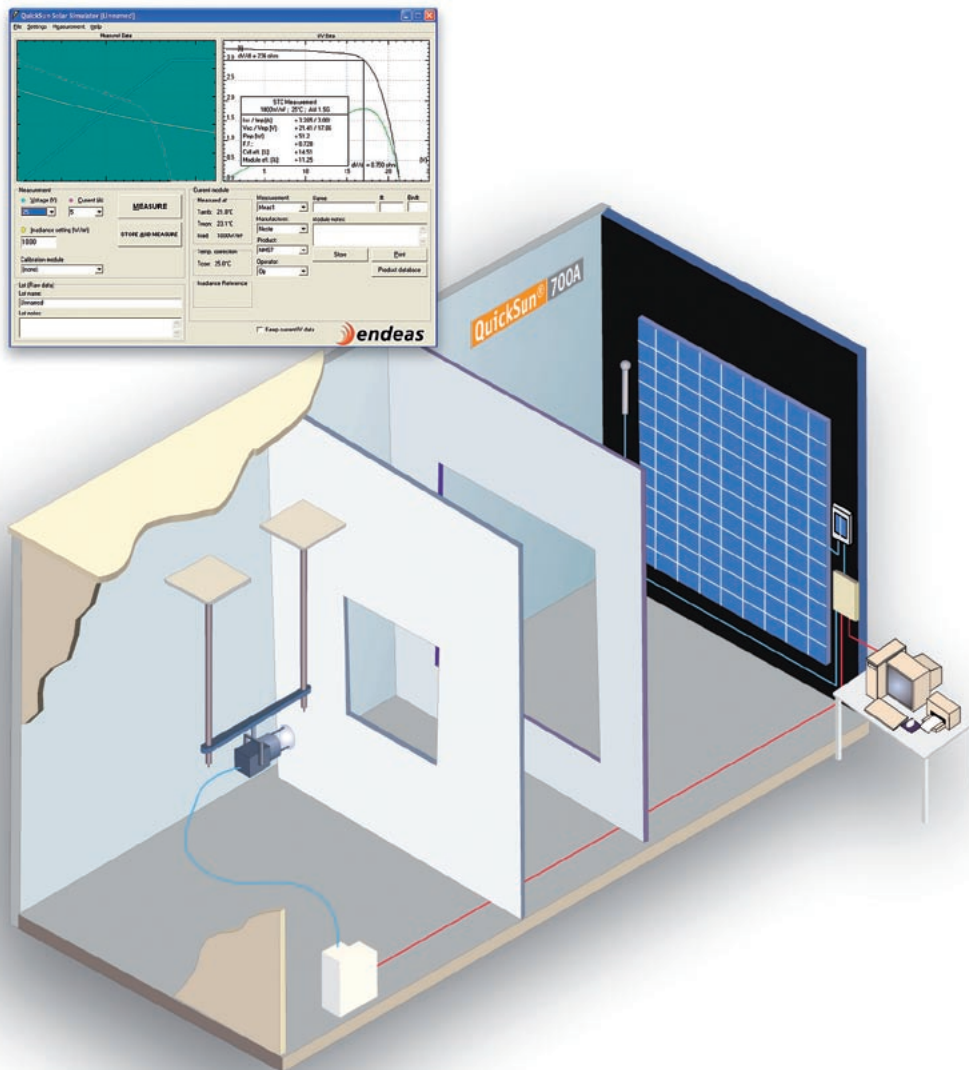


# QuickSun<sup>®</sup> 700A

## Large Area Solar Simulator



QuickSun 700A measures the IV characteristics of even the largest size PV modules whether they are made of thin film or crystalline material. The proprietary operation principle supports straightforward series resistance evaluation according to the IEC891 method and weak light IV characteristics measurements at any desired irradiance level. Installed either as a tunnel or a tower set up.

- Class A solar simulator according to IEC 904-9
  - Xenon flash tube with AM1.5G filter
  - +/- 2 % irradiance uniformity with proprietary optics
  - Irradiance and temperature corrections according to IEC 891
- Proprietary electronic load and data sampling system
  - Measurement reliability surpasses IEC 904-1
  - Irradiance level adjustable from 200 to 1200 W/m<sup>2</sup>
- Superior productivity
  - testing capacity 60-120 modules per hour depending on test area size
  - Low cost-of-ownership
  - Straightforward factory integration with TCP interface

## SPECIFICATIONS QuickSun 700A

### Flash System

- Xenon flash filtered to conform to Class A spectrum.
- Lamp life typically more than 40 000 flashes.
- 6000 Ws flash head and generator, mains 230 Vac, 16 A.
- Irradiance uniformity better than +/- 2%.
- Test area / capacity alternatives:
  - 1) Test area 160 x 220 cm<sup>2</sup> / 60 measurements per hour, lamp to module distance 500 cm.
  - 2) Test area 130 x 160 cm<sup>2</sup> / 120 measurements per hour, lamp to module distance 400 cm.

### Electronics Unit

- Load:** HEXFET, sweep rate controlled by software.
- Current** Maximum current range options 6, 12 and 25 A. Actual scales user adjustable from 0.25 to 6 A or from 0.5 to 12 A or from 1 to 25 A with an absolute measurement accuracy better than 0.2% as calculated from the selected scale.
- Voltage** Maximum voltage range options 50, 100 and 200 V. Actual scales user adjustable from 1 to 50 V or from 1 to 100 V or from 2 to 200 V with an absolute measurement accuracy better than 0.2% as calculated from the selected scale.
- 4-wire** Parallel voltage sensing terminals for excluding the losses in current carrying cables.
- Bias** Adjustable internal power source for biasing the module to real short circuit.
- Irradiance level** Adjustable from 200 to 1200 W/m<sup>2</sup> with 1 W/m<sup>2</sup> resolution.

- Power** Reproducibility better than +/- 0.25%. Absolute accuracy depends on the accuracy of the module used for the calibration of the system.
- Monitor Cell** Crystalline silicon cell calibrated against certified reference cell. Spectral response can be filtered to comply with thin film materials. Gain 25 mV @ 1000 W/m<sup>2</sup>, 25°C. Temperature measured and irradiance signal corrected accordingly.
- Module temperature** IC sensor (LM35) or optionally IR sensor. Accuracy +/- 1°C within 10–40 °C.
- Operation temperature** 15–35°C.
- Mains** 115/230 Vac, 50/60 Hz.
- Computer System**
- PC** Worldwide recognized office PC of the date with Windows XP Pro.
- Printer** Laser printer.
- Label printer** Available as an option.
- Bar code scanner** Available as an option.
- Data storage options** Selected data can be
  - exported as text file
  - written to ODBC database
  - collected with TCP interface
- Conformity** CE approved.

Specifications subject to change without notice.