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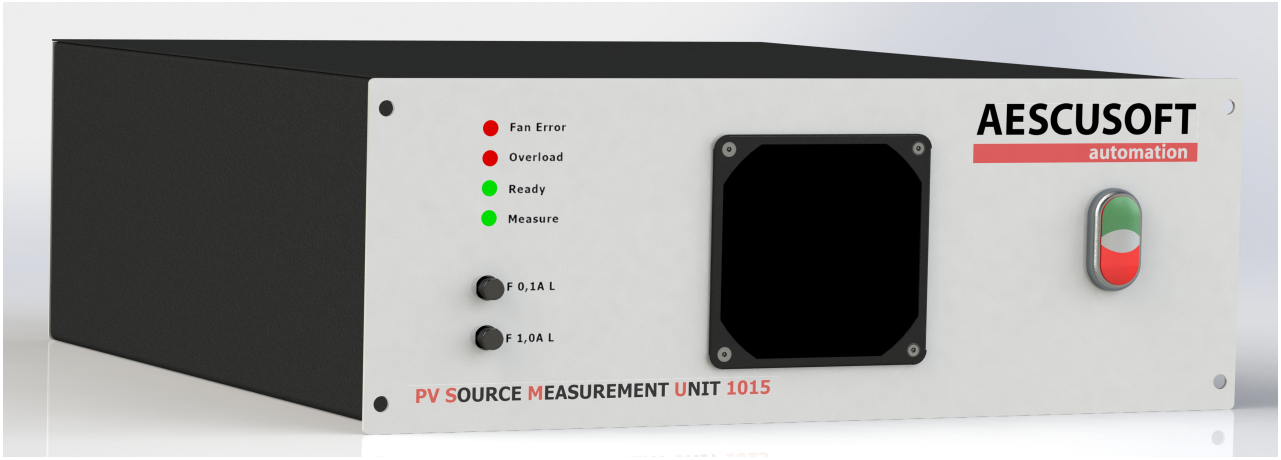

PV-Source Measurement Unit 1015

PV-SMU Source Measurement Unit

Technical Specification

- High current PV-SMU designed for testing solar modules and solar cells, including silicon, thin film, DSC, CPV.
- Full automated Isc, Voc, Mpp, FF and eta calculation.
- Build-in web server for wireless remote control by mobile devices (tablet, smartphone, laptop).
- Data is stored in SQL-database and can easily be transferred to any MES-system.
- 4-wire measurement and 4-quadrant power supply.
- Automated contact check before each measurement.
- Precise simultaneous measurement of voltage, current and light intensity (optional).
- Suitable for continuous light and fast flash light based measurements (250 datapoints per ms).

Options

- Dark IV-curve measurement including Rs and Rp calculation.
- Monitor cell measurement and IV-curve correction.
- Temperature measurement (Pt100 or thermocouple).
- Automated electronic shutter and light intensity control.

PV-SMU integrated into SolSim™ Eco Solar Sumulator

contact

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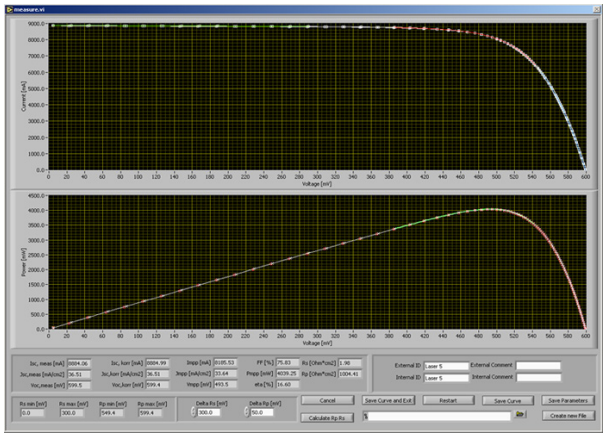
PV-Source Measurement Unit
For Solar Cell IV-Characterization

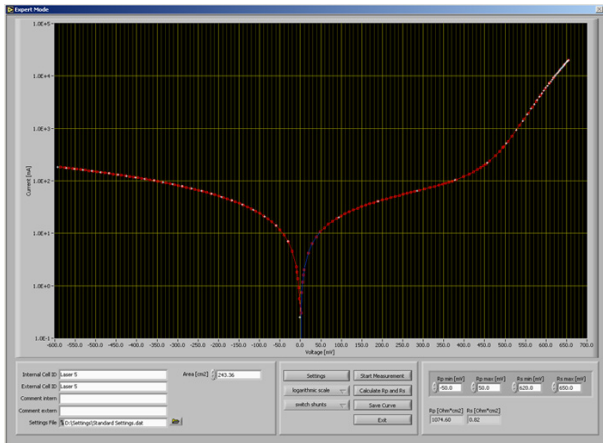
Application Area and Benefits

The 4-quadrant PV-Source Measurement Unit allows real Isc conditions. Precision shunt resistors are selected automatically according to the measurement range. The voltage, current and monitor cell signals are measured simultaneously by 16bit data aquisition. The PV-Source Measurement Unit can be calibrated in an independent laboratory, a calibrated reference cell can also be provided optionally.



Illuminated IV-Curve

The custom made software allows automated measurement of illuminated and optionally dark IV-curves with automatic calculation of all relevant parameters of the solar cell.



Dark IV-Curve (Optional)

The results are stored into a MySQL™ database and can be visualized by a web frontend or loaded into Microsoft Excel™ or Microcal Origin™ .

The PV-Source Measurement Unit is part of the Aescusoft' s SolSimEco sun simulator, but can also be integrated into other existing sun simulators.

Different types of PV-SMUs are available:

- PV-SMU 0505 (5V/ 5A) for Laboratory scale IV testing
- PV-SMU 1015 (10V/ 15A) for 6" Solar Cells IV testing
- PV-SMU 4008 (40V/ 8A) for Standard Modul IV testing
- PV-SMU 6010 (60V /10,5A) for 300W plus Modul IV testing
- PV-SMU 8008 (80V/ 8A) for Hetero Junction Modul IV testing
- PV-SMU 1003 (100V+/ 3A) for Thin Film Modul IV testing
- other ranges on demand

marketing
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