



Mobile Solar Lab

We test performance and quality of your PV modules at site.


As an operator or investor of a solar park or a large PV power plant, you need to rely on the quality of the products used. With simple tests, essential quality characteristics of each individual module can be determined. This is interesting to determine the condition directly after module delivery to the project site as well as after several years of operation, especially when warranty periods expire or there are doubts about the performance. In this way, modules can also be checked after severe weather, e.g. after storms and hailstorms.

TÜV Rheinland offers you a simple solution. With our new Mobile Solar Lab for PV modules, we come to your production site for a larger number of modules to be measured, so that no shipping costs are incurred for this and the measurements can be carried out directly on site.

THE RIGHT MEASUREMENT CONCEPT FOR THE RESPECTIVE CUSTOMER REQUIREMENTS

For a smaller number of modules to be measured, our accredited laboratories are still available. The technology and precision of the Mobile Solar Lab builds on our decades of testing experience in the laboratories and follows the latest state of the art. Unlike other test providers, we are even able to qualify PV modules with an extremely low measurement uncertainty of $\pm 2\%$ up to a length of 2.60 m. Thus, we are prepared for all specific requirements of current module technologies.

Currently, we offer the service of our Mobile Solar Lab in Germany and in neighboring European countries. We plan to expand this concept even further in the future.



ON-SITE PV INSPECTION SERVICE

- Quality assurance**

Out-of-box measurement of PV modules after transport and before installation to check product quality
- Failure analysis**

Diagnostic measurements of PV modules in the field to determine degradation and damage after storms. (Disassembly required)
- Warranty check**

Indicative measurements to verify warranty commitments or to support technical due diligence prior to asset sale

With our Mobile Solar Lab we offer the following test spectrum:

- Measurement of power values of identical PV modules and conversion to standard test conditions (STC)
- Electroluminescence recordings to detect cell breaks, line interruptions and micro-cracks
- Determination of PV module parameters according to IEC 60891 Ed. 3.
- Optional: Calibration of an identical reference PV module under natural solar radiation to realize low measurement uncertainties (up to $\pm 2\%$)



YOUR RELIABLE PARTNER

We are a global leader in industrial services, qualified and accredited to inspect, test and verify materials, processes and products for recognized certification according to international standards and practices. Our global network of interdisciplinary experts is available to you around the clock, providing comprehensive support anywhere in the world.

- 40 years of experience in the PV world
- More than 500 locations in 59 countries
- 8.000 m² laboratory test area
- More than 250 PV experts worldwide

Have your PV modules tested right before the installation at your power plant! Speak with an expert today!

ONLINE CONTACT

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