pv magazine group

show the world

how good your modules are!







What do we offer?

In times of high price pressure and overcapacity, the PV market is tougher than ever. Stand out from the crowd with a quality test seal from pv magazine.



The test's origin: Starting in 2011, pv magazine published extensive tests on more than 20 modules in collaboration with Solarpraxis and TÜV Rheinland, under the label PV+Test.

Now: pv magazine has updated the test for 2017, offering for the first time 100% third-party witnessing of the process. This is a first in the PV industry, which, until now, has conducted testing by one party with no outside expert witnesses.

The test will involve a comprehensive series of testing procedures, including the following:

- ▶ PID (Potential Induced Degradation) resistance
- ► Low irradiance and temperature behavior
- ► Outdoor test
- ► Optional: LID (Light Induced Degradation) resistance, especially relevant to PERC modules

The added value of pv magazine test:

- ► An economic way of demonstrating your reliability to investors
- ▶ Measurements performed in a 1st class laboratory in China
- ► Expert third-party witnessing of all testing procedures by Clean Energy Associates, a well-known advisory firm that has audited more than 125 manufacturers in the industry.

How does the module test work?

Program flowchart

Supplier provides a list of 2,000 (minimum) serial numbers of PV modules of the same product type

CEA randomly selects 5* modules to be shipped for testing

Supplier packages samples in strong wooden box

serial number ID is attached on the box

CEA records photos of the box, and Gshock sticker.

Supplier ships the box with samples to Gsolar's

G-shock** sticker with

Gsolar engineers examine the box and sticker

Is either 1) the box damaged or 2) sticker red/destroyed?



No

Gsolar notifies CEA to send engineer for inspection

5* modules



Visual Inspection according to IEC 61215 10.1.2 and CEA's QC criteria

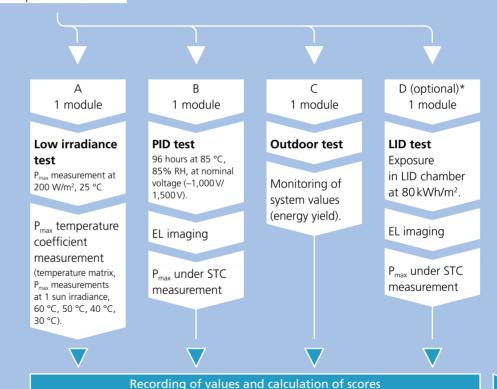
EL imaging

P_{max} under STC measurements



Recording of values and calculation of scores

Random selection by CEA of the modules that will be assigned to each of the sequences A to D



* LID option: 5 modules if LID test is performed (1 module is spare, in case a module is accidentally damaged in the

Comprehensive third party expert witnessing included throughout. Details may differ if LID option included.

** G-shock grade will be defined by CEA



What you get from it?

For you as a module manufacturer **pv magazine test** presents an ideal marketing opportunity to demonstrate the quality and reliability of your modules!

Boost your reputation

among investors by participating in pv magazine test!

Benefit from pv magazine's international reach:

- ► Results will be published on the leading online sites in English, German, Chinese & Spanish
- ► Optional: receive customized print-outs to give directly to your customers.







Is this of interest to you?

For more details about **pv magazine test**, and to receive a quotation, please contact our Sales Team:

Senior Consultant,
Business Development & Sales
Fabienne Cuisinier

Phone: +49 (0)30 213 00 50-39 Mobile: +49 (0)151 175 65 097

Email: fabienne@pv-magazine.com

Sales Greater China & Korea Hong Kong Office Calvin Chong

Mobile/WeChat: +852 9732 8266

Skype: calvinchong266

Email: calvin@pv-magazine.com