PHONO SOLAR - THE SMARTEST CHOICE OF 2016

Phono Solar solar panels are the smartest choice of 2016. By conducting tests that exceed IEC standards, Phono Solar ensures that the modules satisfy the highest quality criteria upon leaving the production line. High-quality materials and a unique frame design ensure maximum load capacity. Take a look for yourself:

TIER 1 SUPPLIER

Phono Solar is a serious major manufacturer of solar panels. In 2008 the company was founded by SUMEC Group Corporation (Global Fortune 500 company) and currently the company has a production capacity of 800MW.

- Tier 1 manufacturer according to Bloomberg BNEF
- SolarIF Certified
- Insurance: Reinsured by Chubb and AIG.

INDEPENDENT TESTS CONFIRM HIGH PERFORMANCE

With Phono Solar you get a return on your investment. In order to guarantee performance Phono Solar modules must undergo a broad range of specific tests that guarantee the quality of the production. It’s thereby ensured that all modules meet the most stringent requirements.

All tests are carried out in it’s own in-house test laboratory, which is certified by TÜV SUD. Phono Solar modules are regularly tested 3 to 6 times higher than IEC standards require, ensuring a very robust and longer lasting solar module. Besides that, the quality of the modules is confirmed by independent testing companies such as: DNV-GL & Eternal Sun.

<table>
<thead>
<tr>
<th>Module tested</th>
<th>Pmax DATASHEET:</th>
<th>Pmax measured:</th>
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Test Results Eternal Sun Test PS285 MBB-20/U - July 2016 - Available upon request via: sales@solarclarity.co.uk

FULL BLACK MODULES - ELEGANT DESIGN

Solar panels on your roof should not only perform well, they should also be a perfect fit with your roof design.

Phono Solar Solar Modules are full black and do not have any color differences within or between the modules. Therefore, the modules perfectly integrate with the appearance of your roof.

WITH PHONO SOLAR YOU WILL GET A RETURN ON YOUR INVESTMENT

OUTSTANDING PERFORMANCE

- Highly illuminating EVA
- More light on the cells causes a higher overall return.
- IP68 Junction Box
- Protected from dust and water ingress.
- Current Sorting
- Perfectly aligned cells for outstanding performance.
- SMART
- Monitor the performance of each panel and get maximum return from your investment.

SOLAREDGE OPTIMIZED MODULES

- SolarEdge monitoring provides enhanced PV performance monitoring.
- Upto 25% more energy due to integrated SolarEdge optimizers.

INNOVATIVE GLASS-GLASS MODULES

- LONGER LIFE SPAN:
  - 40 years instead of 25 years
- HIGHER YIELD:
  - Due to slow degradation of the solar cells you will have a higher annual revenue.

10 YEARS PRODUCT WARRANTY

Quality is one of the core values of Phono Solar. Therefore, the company offers a product warranty of 10 years.
**Thermal Cycling Test**

Within a climatic chamber under extreme conditions (from -40 °C to 85 °C) simulated for 1000 hours. The modules are tested before and after the test at full power. For this test 800 cycles are carried out, which is equivalent to more than 25 years of life.

**Dynamic Mechanical Load Test**

Under the influence of wind and snow high mechanical pressure may be placed on a solar panel. The Mechanical Load Test shows how a panel performs under rapidly repeating high pressure forces.

**Humidity Freeze Test**

Several components within the module can absorb moisture: the junction box, the backsheet etc. When absorbed moisture freezes damage can arise. During the Humidity Freeze test, the solar panels were exposed to an environment of 85 °C with a humidity of 85% for 20 hours followed by 4 hours at -40 °C. These conditions were repeated 30 times.

**PID-Test**

During the Potential Induced Degradation (PID) test the modules are subjected to a high negative voltage for one week. After this test the modules must operate correctly at a minimum of 95% performance. The Phono Solar module cells displayed a degradation of less than 0.5%.

**Damp Heat Test**

The 2000 hour Damp Heat test measures the effect of extremely high temperature (85 °C) and very high humidity (85%) on the aging process of the panel.

**Phono Solar: Best Performing Solar Panel Supplier in 2016**