



QUALITY MAKES ALL THE DIFFERENCE

JinkoSolar (NYSE: JKS) is a global leader in the solar industry, recently becoming the third largest global PV supplier. As one of the fastest growing and most reliable PV suppliers in the industry, Jinko has put a strong emphasis on its product's quality.

Although solar panels may appear similar on the surface, each solution can vary in efficiency and reliability. To ensure purchasing a quality product, customers need to ask the following questions:

Can all manufacturers back up its warranty?

Only a reliable and financially stable company can deliver its promise and cover a 25-year service life warranty (30 years for Eagle Dual). For years, JinkoSolar has been one of the most profitable solar PV manufacturers in the world with over \$2 Billion (USD) in annual revenue.

How reliable are the applied testing methods?

UL certified in-house testing facilities, brilliant methodology, highly skilled staff and participation in internationally authorized third-party certification programs ensure that all tests performed on Jinko panels are credible and meet industry standards.

What kind of documentation is provided to verify the performance of a product?

JinkoSolar provides the + IAM behavior pan file to customers upon request.

Do the tests cover all modules or are modules tested at random?

Jinko products are subjected to 52 steps of continuous and routine quality inspection, and in-line monitoring throughout the entire supply chain. A 100% electro-luminescence test is also performed on each cell and module.

What kind of quality procedures are used to rule out hazards such as PID or micro-cracks?

JinkoSolar is the first company to mass produce PID-Free modules, which are routinely tested with zero micro-cracks. During the quality test solar modules covered with ammonia foil are exposed to negative 1000 voltage for 96 hours. In order to pass the extreme test, they must not diminish by more than 5%, show zero visual failure, and pass a wet leakage current test, as well as a maximum power determination test.

How does the company ensure a focus on quality?

At JinkoSolar, the Quality Control VP communicates directly with the company CEO to ensure our products surpass quality and productivity standards, avoiding communication loss in between levels. Approximately 1500 QC and QA professionals oversee a strict quality-control and inspection process.

What achievements specific to quality has the company accomplished?

- Best Performer in Photon Lab Module Test for 4 consecutive years.
- First Company to pass the PID-Free test under 85°C/85% RH.
- First company to withstand a PID-Free test under 60°C/85%.
- One of the lowest defect and claim rates in the industry.



Which certificates does the company hold?

JinkoSolar is one of the few companies certified by all major standardizing organizations, ensuring the continuous reliability, safety, and quality of our modules. Our standard module testing certifications include: IEC 61730, IEC 61215, IEC 61701, IEC 61716, IEC 62804 and UL 1703, demonstrating high-quality control during production and testing cycles.

What does it mean to be “Quality Tested”?

- All JinkoSolar modules endure a rigorous 52-step quality control and inspection process.
- Continuous line monitoring and video/photo records of each cell and panel ensures the quality of each individual module.
- Comprehensive QC information management system is in place to allow for constant quality data flow.
- Most stringent acceptance criteria and tightest tolerance.
- A team of 1500 dedicated quality control professionals prepared to assess all products.
- Zero serial defects.
- Narrowed power category, delivering more power than guaranteed in datasheets.

Customer Advantages:

- Reliable system performance due to a comprehensive approval certification.
- High yields over a long period of time and increased investment security Generate more power in a given space and in time duration.
- Consistent performance and durability after exposure to intense sunlight and extreme conditions.
- Less maintenance required over the lifecycle of the solar system.





Tougher Requirements to Gain International Quality Certifications:

- 4-fold thermal cycling test in acc. with IEC and UL (IEC and UL standard is 200 cycles, 800 cycles conducted min.)
- 4-fold damp heat test in acc. with IEC (IEC standard is 1,000 hours, we conducted 4,000 hours)
- 4-fold humidity freeze test in acc. with IEC(10 cycles) and 8-fold in acc. with UL (5 cycles), 40 cycles conducted
- 6-fold UV exposure test in acc. with IEC (IEC standard is 15 15kWh/m2, conducted under 9015kWh/m2)
- Undergo dynamic mechanical load test (1,000 hours) which is not required by IEC
- UL 10-fold PID free test in acc. with IEC (IEC standard is 96 hrs@60 C -85%RH, passed 1000hrs @60 C -85%RH)

Stringent Quality Assurance in Production Ensures Consistency:

- 100 % electroluminescence test before and after lamination
- 100% “zero” micro crack monitoring and optimal test prior to shipment
- Daily test of grounding behavior
- Daily welt leakage testing

Comprehensive and Continuous Testing Guarantees Accuracy:

- Primary modules are calibrated by TUV. Frequency: every half a year.
- Secondary modules are calibrated by the primary module. Frequency: every week.
- Perform thermal cycle testing on 45 modules from running production every two months.
- Perform climatic testing on 45 modules from running production every two months.

