



# QUALITY MAKES ALL THE DIFFERENCE

In today's world, imagine an industry that allows a 20-30% CAGR for consecutive years, that is Solar PV. In solar PV industry, imagine a company that is outmatched in its growing speed by nobody, that is JinkoSolar. There are various reasons behind to have this amazing achievement, but the fundamental attitude is QUALITY, that quality makes all the difference.

Solar panels are not all alike, and not everything that promises quality delivers on that promise. This becomes apparent to the customer by taking a second look at product quality and asking the following questions:

Which manufacturer is able to back up its warranty?

Only a reliable, sustainable, and financially healthy company can deliver its promise and cover a 25-year service life warranty. For years, JinkoSolar has been one of the most profitable solar PV manufacturers worldwide.

Are promises made in the guarantee underpinned by credible tests?

UL certified in-house testing facilities, brilliant methodology, efficient processes, highly skilled staff as well as participation in all international authorized third-party quality certification programs ensure JinkoSolar's tests are credible and underpin the promise we make in the guarantee.

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

JinkoSolar provides the client with the panfile + IAM behavior to enhance our position versus our competitors.

Are products which have been mass produced selected for random testing?

52 steps continuous and routine quality inspection in production, in-line monitoring throughout the entire supply chain, 100 % electroluminescence test for each cell and module, barcode ID Quality traceable system in place.

Are there some key quality processes used to rule out hazards such as PID or micro-cracks?

First company to mass produce PID-Free modules. These 100% PID-Free modules are routinely tested with zero micro-cracks.

How does the company ensure a focus on quality?

In JinkoSolar, the Quality Control VP reports directly to 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. Furthermore, overall theme of "Quality" is applied an organizational level throughout all areas of the company.

What achievements specific to quality, has your company accomplished?

- Awarded Best Performer in Photon Lab Module Test for consecutive years.
- First Company to pass as PID-Free under 85°C/85% RH, and First company to withstand a PID-Free test under 65°C/85% RH for 1000 hrs.
- One of the lowest defect and claim rates in the industry.



# The best modules on the market- guaranteed!

JinkoSolar is one of the fewer companies that are certified by all key quality programs, which considerably expand the well-known module test of IEC 61215 and IEC 61730, in terms of the approval certification, the quality controls during the production process and the frequency of the testing cycle. This extensive participation in the quality tested programs of global and regional independent certification authority ensures the continuously high reliability, safety and quality of our modules over the long term.

## Quality Tested Represents:

- 52 steps quality control and inspection process.
- Continuous line monitoring and video/photo record for each cell and panel.
- The most advanced quality assurance devices.
- Comprehensive QC information management system in place to allow quality data flow constantly.
- Intelligent alarm and stop mechanism in case of any deviation or errors.
- Most stringent acceptance criteria and tightest tolerance.
- A team of 1500 quality control professionals.
- "Zero" defects objective.

## Advantages for customers

- Reliable system performance thanks to comprehensive approval certification.
- High yields over the long run and increased investment security thanks to additional reliability and safety tests.
- Increased bankability thanks to independent certification by an internationally recognized testing and certification authority.
- Generate more power in given space and in time duration.
- Consistent performance and durability after exposure to intense sunlight and extreme conditions, means you get what you are paying for.
- Less maintenance required over the lifecycle of the solar system.





## Tougher Requirements to Gain International Quality Approvals:

- 4-fold thermal cycling test in acc. with IEC and UL (IEC and UL standard is 200 cycles, we conducted minimum 800 cycles)
- 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 hours) and 8-fold in acc. with UL (5 hours), we conducted 40 hours
- 6-fold UV exposure test in acc. with IEC (IEC standard is 15 kWh, we conducted under 90kWh)
- 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@650C-85%RH, we pass 1000hrs @650C-85%RH)

## Stringent Quality Assurance in Production to Ensure Consistency:

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

## Comprehensive and Continuous Testing Guarantees Accuracy:

- The mother module was calibrated by TUV, Frequency: every half a year; The daughter modules were calibrated by the mother module, Frequency: every week
- Do thermal cycle testing on 45 modules from running production every two months
- Monthly climatic testing on 45 modules from running production

