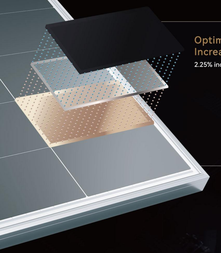
Innovation Without Limits

HPBC 2.0 Sets Sail, Great Leaps in 3 Key Technologies

Leap the Cell Technology Barrier

Upgraded three-layer structure of light absorption/photovoltaic conversion/electricity transmission



Optimised Multi-layer Anti-reflection Film: Increase light absorption
2.25% increase in short-circuit current | 12%+ reduction in reflections at short waves

Innovation Bipolar Hybrid Passivation
Mass production Voc exceeds 745mV | Effective against UV-induced degradation

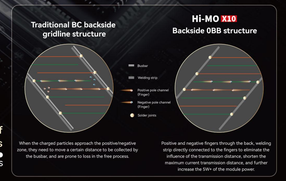
Soft Breakdown Design + Bipolar Low Resistance Passivation Contacts
Reduced hot spot/shading power loss | Overall cell efficiency improvement

Leap the Silicon Substrate Limitations

Equipped with TaiRay core
Enhances overall power generation potential and reliability

Leap the BC Manufacturing Dilemma

Innovative development of 0BB structure,
Breakthroughs in key processes and materials



Innovative Development Of 0BB Structures

No frontal gridline, No back busbars

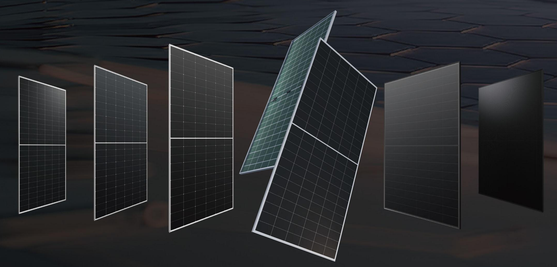
Peak of Crystalline Silicon First Choice for Value

New Product, Meet User Scenario Needs

Performance Leading	Reliability Leading	Standard Leading	Manufacturing Leading
Peak efficiency Fearless to high temperature Anti-shading	Anti-high temperatures & hot spots Full- Scene aging suppression Svstem-level resistance to mechanical stress	Raw material standard Full- Scene reliability standard	Lighthouse factory Technological manufacturing

Hi-MO X10 Explorer

Hi-MO X10 Scientist



Hi-MO X10 Guardian

Hi-MO X10 Artist

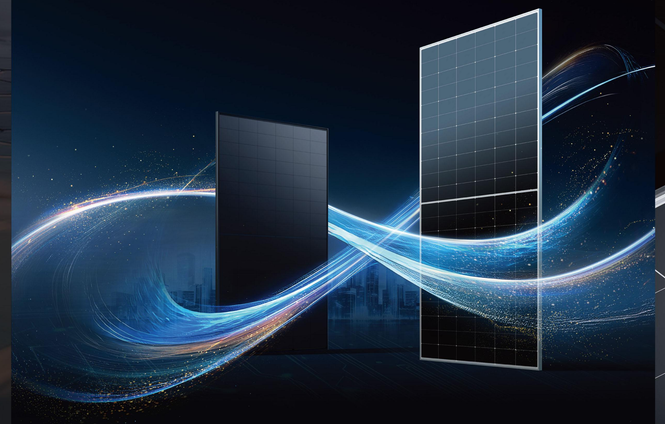
LONGi
www.longi.com

2024.10

LONGi

Hi-MO X10

Peak of Crystalline Silicon First Choice for Value Unleash the Future Without Limits



To Make the Best of Solar Energy To Build a Green World

Founded in 2000, LONGi Green Energy Technology Co., Ltd. (LONGi) is committed to being the most valuable solar technology company in the world. Under the mission of "To make the best of solar energy to build a green world" with a brand positioning of "The most trusted, reliable solar company that blazes the trail for green technology". LONGi is developing solutions for large-scale power plants, for different industries and households with its innovation-focused development. Eventually, we will also supply "Green Power + Green Hydrogen" solutions for global zero-carbon development.

125.42GW Monocrystalline Silicon Wafer Shipment (2023)	**170GW** Monocrystalline Silicon Wafer Capacity (2023)
200GW Annual Capacity Plan for the Next Three Years Wafer Annual Planed Capacity	**67.52GW** Monocrystalline Silicon Module Shipment (2023)
120GW Monocrystalline Silicon Module Capacity (2023)	**150GW** Annual Capacity Plan for the Next Three Years Module Annual Planed Capacity

LONGi has consistently maintained industry leading ability to mitigate risk and adapt to market changes and, as part of operations, the company prioritizes corporate financial health and stability, with its asset-liability ratio at a low level compared to other global PV manufacturers.

TIER 1 — **Tier 1 PV Module Manufacturer**
Source: BNEF 1Q 2024 Global PV Market Outlook

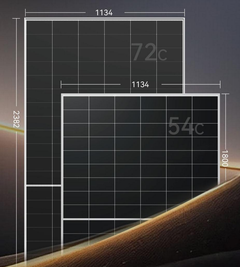
100% — **100% Bankable PV Module Brand**
Source : BNEF PV Module & Inverter Bankability 2023

AAA — **PV Module Tech Bankability Rating**
Source : PV ModuleTech Bankability Ratings Quarterly | Q1'24 Release

Power Without Limits

Peak Efficiency, The Mass Production Power Leads the Industry by 30W

Hi-MO X10



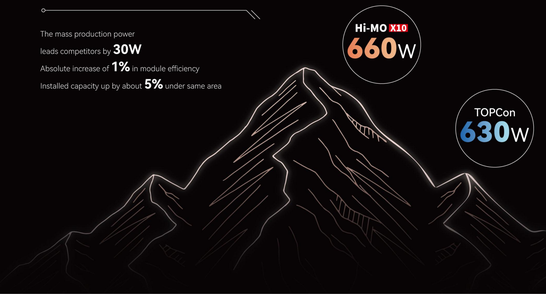
Maximum Conversion Efciency **24.8%**

Maximu Mocule Power **670W**

The mass production power leads competitors by **30W**

Absolute increase of **1%** in module efficiency

Installed capacity up by about **5%** under same area



Ambition Without Limits

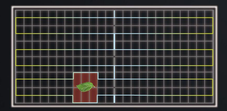
Unique Leading Technology Establish the Core Superiority of Hi-MO X10

Anti-Shading

No Fear of Partial Shading | Lower Power Loss

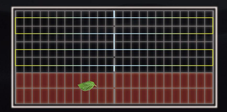
Hi-MO X10

Single-cell shading leads to self-bypass
No affect to the power output of the entire string of cells, less power loss



Regular Module

Single-cell shading leads to the entire string of cells to bypass large power loss



Prevent localized overheating

Reduce Hot Spot Temperature | Failure Risk Drops Sharply

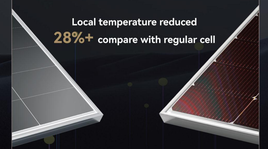
Hi-MO X10

Soft Breakdown Design can significantly reduce the local temperature under shading

TOPCon

Shading transform cell into a load, consumes current, local Temperature rise, causes hot spot

Local temperature reduced **28%+** compare with regular cell

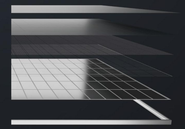


Full- Scenario Aging Suppression

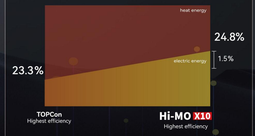
High-Reliability Packaging Resists Aging | High Efficiency Reduces Temperature

High-Reliability Packaging

- High density packaging
- POE encapsulation film
- Pure silver electrode paste
- Innovation bipolar hybrid passivation



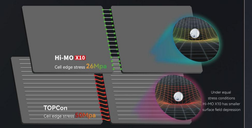
Suppression of Operating Temperature



Law of conservation of energy: higher efficiency means higher power and lessheat, thus lower temperature.
Hi-MO X10 module is 1.5% more efficient than TOPCon, with lower operating temperature and better aging suppression.

System-Level Resistance to Mechanical Stress

Thicker TaiRay wafer | All Back Contact One-line Welding Structure



TaiRay Core

Ultra-high mechanical strength
maximum rupture strength increased by 16%

Thicker TaiRay Wafer

Water thickness is 10μm thicker than mainstream thicker for stronger reliability

All Back Contact One - line Welding Structure

Reduce cell edge stress improve anti-cracking performance

High Efficiency | Low Temperature Coefficient | Low Degradation | Anti-Shading | Low Fault Failure

Value Growth Without Limits

8%+ Increase in Power Generation

Enter Thousands of Industries and Households

Investment Residential

Higher Investment Returns

Xian, China | Roof area: 240 m²
Roof angle: 25° tiled | Full Grid Connection, Feed-in-tariff: $0.05/kWh
- System design: 13 pcs /string, a total of 5 strings, 8 inverters of 8kW

TOPCon		Hi-MO X10		
630	Module rated power (W)	660		
47.25	Project Capacity (kW)	49.50	↑	4.76%
1485.2	Total Power Generation (mwh)	1602.1	↑	7.9%
11.56	IRR (%)	12.57	↑	8.75%
8.19	Payback Period (year)	7.59	↓	7.34%

Long Tail C&I

Higher Investment Returns

Madrid, Spain | Roof area: 1000 m²
Roof angle: Color Steel Tile Roofing 3° | Full Grid Connection, Feed-in-tariff: $0.05/kWh
- System design: 20 pcs /string, a total of 154 strings, 11 inverters of 17.5kW, system voltage 1500V

TOPCon		Hi-MO X10		
630	Module rated power (W)	660		
1940	Project Capacity (kW)	2033	↑	4.76%
83647	Total Power Generation (mwh)	90933	↑	8.7%
9.07%	IRR (%)	9.96%	↑	9.88%
10.06	Payback Period (year)	9.27	↓	7.89%

Residential

Lower LCOE

Madrid, Spain | Roof area: 240 m²
Roof angle: 25° tiled | Self-consumption, Residential electricity price: $0.17/kWh
- System design: 13 pcs/string, a total of 4 strings, 4 inverters of 8kW

TOPCon		Hi-MO X10		
630	Module rated power (W)	660		
49.14	Project Capacity (kW)	51.48	↑	4.76%
2396	Total Power Generation (mwh)	2610	↑	9.0%
0.039	LCOE ($/year/kWh)	0.036	↓	7.16%

Value C&I

Lower LCOE

Xian, China | Roof area: 14000 m²
Roof angle: Color Steel Tile Roofing 3° | Self-consumption, C&I electricity price: $0.11/kWh
- System design: 23 pcs /string, a total of 145 strings, 11 inverters of 17.5kW, system voltage 1500V

TOPCon		Hi-MO X10		
630	Module rated power (W)	660		
2217.6	Project Capacity (kW)	2323.2	↑	4.76%
66593	Total Power Generation (mwh)	71958	↑	8.1%
29.36	IRR (%)	31.33	↑	6.72%
0.05	LCOE ($/year)	0.047	↓	6.9%