

Hi-MO X10 Explorer

LR7-54HVH Mono-facial module

475~490M



N-type TaiRay Wafer



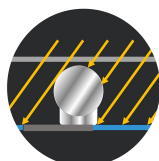
Hybrid Passivation Back Contact Cell 2.0

Peak of Crystalline Silicon, First Choice for Value



BC Cell

no gridline shielding
100% light absorption



Non-BC Cell

gridline shielding
creates inactive areas



Advanced Efficiency and Technology

- HPBC 2.0, globally most efficient mass-produced cell.
- Three advanced core technologies: Ultimate crystalline silicon solar cell technology HPBC 2.0; Innovative TaiRay wafer; Cutting-edge Industry Technology 0BB.



Safe and High Reliability

- Preventing localized overheating to eliminate hazards.
- High-strength/thicker TaiRay wafers reduce hidden cracks.
- Unique cell welding structure, excelsior qualified BOM & process, more heightened full-scene test, ensuring and providing 30 years power warranty.



15-year warranty for material and processing



30-year warranty for extra linear power output



Economical and Value-added

- Added installed capacity in same area.
- Additional power generation in same area and generation income.
- Anti-shading function recovering power loss.
- Appropriate size brings more capacity for small roof.



Aesthetic and Distributed Scenario Design

- No frontal gridline, pure black cell aesthetics, showcasing noble quality.
- Aesthetic appearance to achieve perfect integration with distributed scene.
- Friendly load for roof.

Complete System and Product Certifications

IEC 61215, IEC 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

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24.0%
MAX MODULE
EFFICIENCY

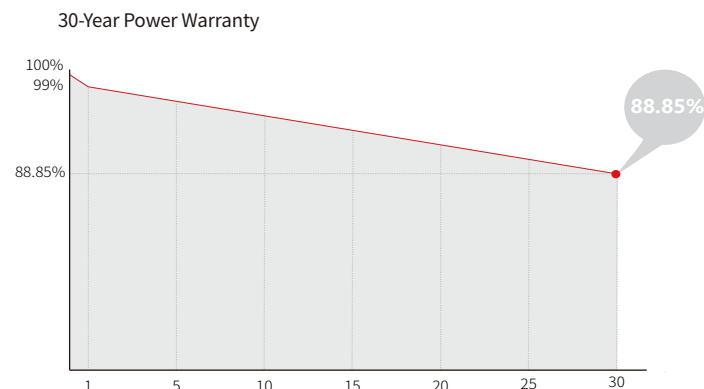
0~3%
POWER
TOLERANCE

<1%
FIRST YEAR
POWER DEGRADATION

0.35%
YEAR 2-30
POWER DEGRADATION

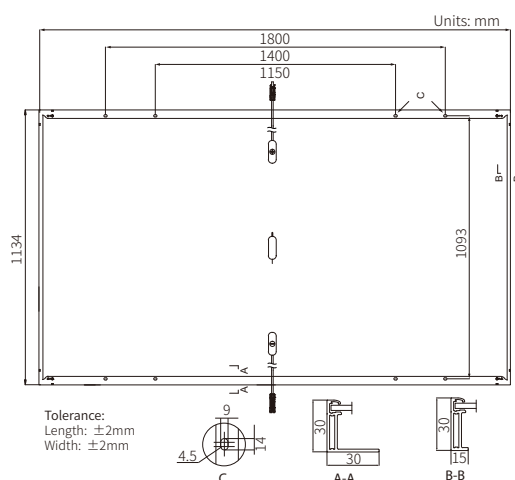
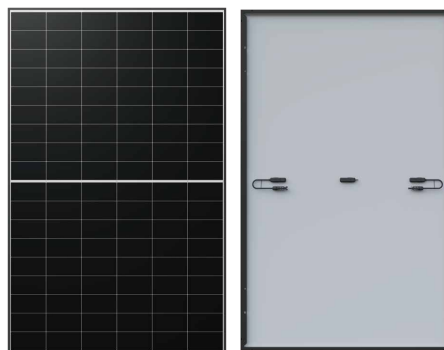
BC-CELL
LOWER OPERATING
TEMPERATURE

Additional Value



Mechanical Parameters

Cell Orientation	108 (6×18)
Junction Box	IP68, three diodes
Output Cable	4mm ² , +400, -200mm/±1200mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	21.6kg
Dimension	1800×1134×30mm
Packaging	36pcs per pallet / 216pcs per 20' GP / 864pcs per 40' HC



Electrical Characteristics

STC: AM1.5 1000W/m² 25°C

NOCT: AM1.5 800W/m² 20°C 1m/s

Test uncertainty for Pmax: ±3%

Module Type	LR7-54HVH-475M		LR7-54HVH-480M		LR7-54HVH-485M		LR7-54HVH-490M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	475	362	480	365	485	369	490	373
Open Circuit Voltage (Voc/V)	40.18	38.18	40.29	38.29	40.40	38.39	40.52	38.51
Short Circuit Current (Isc/A)	15.03	12.08	15.13	12.16	15.23	12.24	15.33	12.32
Voltage at Maximum Power (Vmp/V)	33.16	31.52	33.28	31.63	33.40	31.74	33.51	31.85
Current at Maximum Power (Imp/A)	14.33	11.49	14.43	11.57	14.53	11.65	14.63	11.73
Module Efficiency(%)	23.3		23.5		23.8		24.0	

Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	IEC Class C

Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.200%/°C
Temperature Coefficient of Pmax	-0.260%/°C

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Specifications included in this datasheet are subject to change without notice.
LONGI reserves the right of final interpretation. (20241118 BGV02 Draft)