

# Hi-MO X10 Scientist

## LR7-72HVH 640~670M

- Suitable for Distribution Market
- Highest efficiency with the best energy generation performance
- TaiRay wafer & BC technology enhances high product reliability
- Smart manufacturing & LONGi product lifecycle standards deliver exceptional product quality

15

15-year Warranty for  
Materials and Processing

30

30-year Warranty for Extra  
Linear Power Output

### 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

**24.8%**  
MAX MODULE  
EFFICIENCY

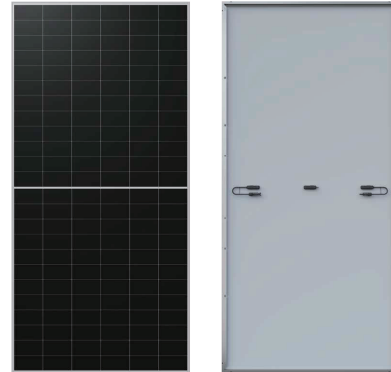
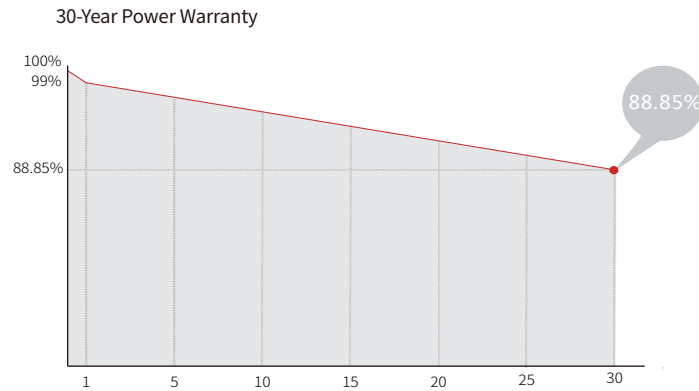
**0~3%**  
POWER  
TOLERANCE

**<1%**  
FIRST YEAR  
POWER DEGRADATION

**0.35%**  
YEAR 2-30  
POWER DEGRADATION

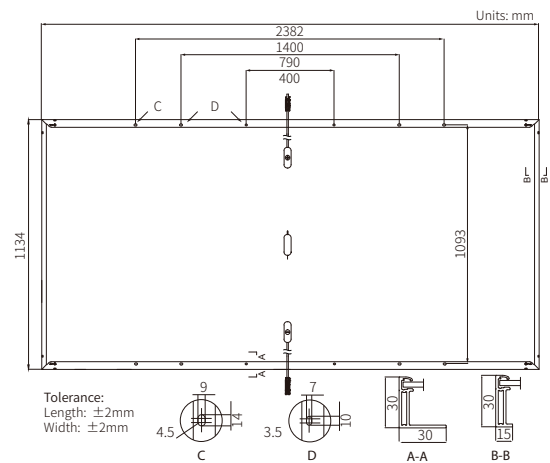
**BC-CELL**  
LOWER OPERATING  
TEMPERATURE

## Additional Value



## Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> , +400, -200mm/±1400mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	28.5kg
Dimension	2382×1134×30mm
Packaging	36pcs per pallet / 144pcs per 20' GP / 720pcs per 40' HC



## Electrical Characteristics

STC : AM1.5 1000W/m<sup>2</sup> 25°C

NOCT : AM1.5 800W/m<sup>2</sup> 20°C 1m/s

Test uncertainty for Pmax: ±3%

Module Type	LR7-72HVH-640M		LR7-72HVH-645M		LR7-72HVH-650M		LR7-72HVH-655M		LR7-72HVH-660M		LR7-72HVH-665M		LR7-72HVH-670M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	640	487	645	491	650	495	655	499	660	502	665	506	670	510
Open Circuit Voltage (Voc/V)	53.70	51.04	53.80	51.13	53.90	51.23	54.00	51.32	54.10	51.42	54.20	51.51	54.30	51.61
Short Circuit Current (Isc/A)	15.13	12.15	15.21	12.22	15.29	12.28	15.37	12.34	15.45	12.41	15.52	12.47	15.60	12.53
Voltage at Maximum Power (Vmp/V)	44.36	42.15	44.46	42.25	44.56	42.35	44.66	42.44	44.76	42.54	44.86	42.63	44.96	42.73
Current at Maximum Power (Imp/A)	14.43	11.56	14.51	11.63	14.59	11.69	14.67	11.76	14.75	11.82	14.83	11.88	14.91	11.94
Module Efficiency(%)	23.7		23.9		24.1		24.2		24.4		24.6		24.8	

## 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