

# Hi-MO X10 Guardian Lite Design

LR7-60HVHL

## 535~560M

- Suitable for low-load distributed scenarios
- 24.2%+ module efficiency, better power generation performance.
- BC technology prevents localized overheating, safety re-upgrades
- No frontal gridlines, modern simplicity is more aesthetic
- Stronger reliability supports ultra-long warranty

15

15-year Warranty for Materials and Processing

30

30-year Warranty for Extra Linear Power Output

7.2KG/m<sup>2</sup>

### 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

**LONGI**



**24.8%**  
MAX MODULE  
EFFICIENCY

**0~3%**  
POWER  
TOLERANCE

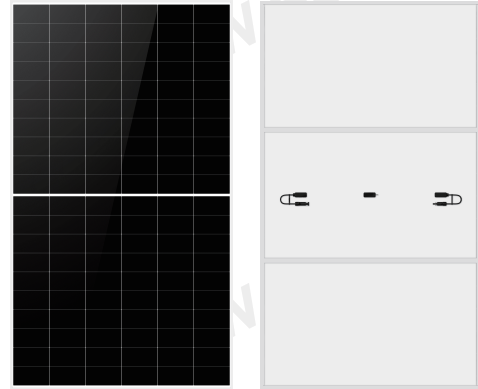
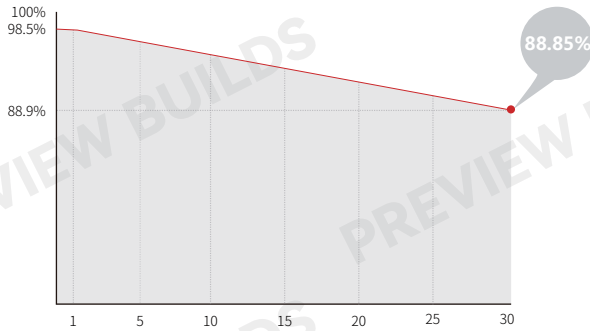
**<1%**  
FIRST YEAR  
POWER DEGRADATION

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

**BC-CELL**  
LOWER OPERATING  
TEMPERATURE

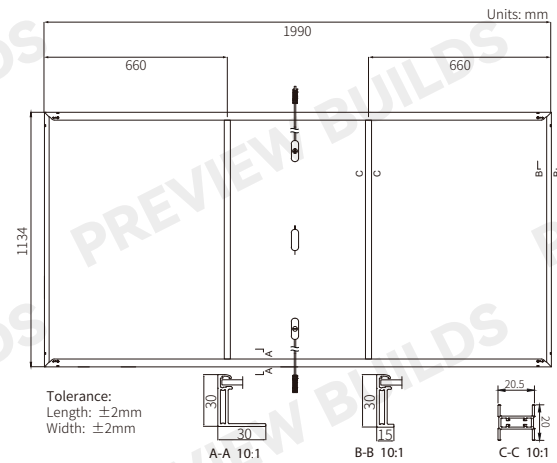
## Additional Value

### 30-Year Power Warranty



## Mechanical Parameters

Cell Orientation	120 (6×20)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> +400/-200mm/±1400mm length can be customized
Glass	Single glass, 1.6mm coated semi-tempered glass
Frame	Anodized aluminum alloy frame
Weight	16.3±3% kg
Dimension	1990×1134×30mm
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	LR7-60HVHL-535M		LR7-60HVHL-540M		LR7-60HVHL-545M		LR7-60HVHL-550M		LR7-60HVHL-555M		LR7-60HVHL-560M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	535	407	540	411	545	415	550	419	555	422	560	426
Open Circuit Voltage (Voc/V)	44.78	42.57	44.88	42.66	44.98	42.76	45.08	42.85	45.18	42.95	45.28	43.04
Short Circuit Current (Isc/A)	15.15	12.17	15.25	12.25	15.35	12.33	15.45	12.41	15.55	12.49	15.65	12.57
Voltage at Maximum Power (Vmp/V)	37.01	35.16	37.11	35.26	37.21	35.35	37.31	35.45	37.41	35.54	37.51	35.64
Current at Maximum Power (Imp/A)	14.46	11.58	14.55	11.66	14.65	11.73	14.74	11.81	14.84	11.89	14.93	11.96
Module Efficiency(%)	23.7		23.9		24.2		24.4		24.6		24.8	

## Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3% 0 ~ ±5W
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	3600Pa
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