

# Hi-MO X10 Guardian Anti-Dust

## LR7-72HVHF 640~670M

- Equipped with HPBC 2.0 cell, inheriting high-efficiency gene
- Unique frame design effectively reduces the impact of dust accumulation and improves power generation gain throughout the entire lifecycle
- High reliability, stable operation under harsh conditions
- More suitable for industrial and commercial color steel tile roofs and small angle installation scenarios

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, UL 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

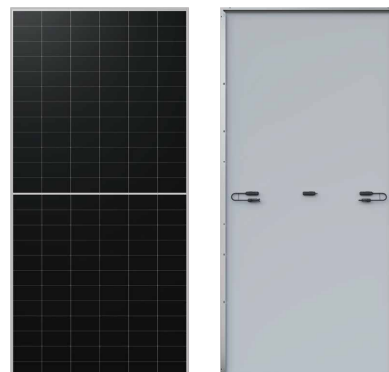
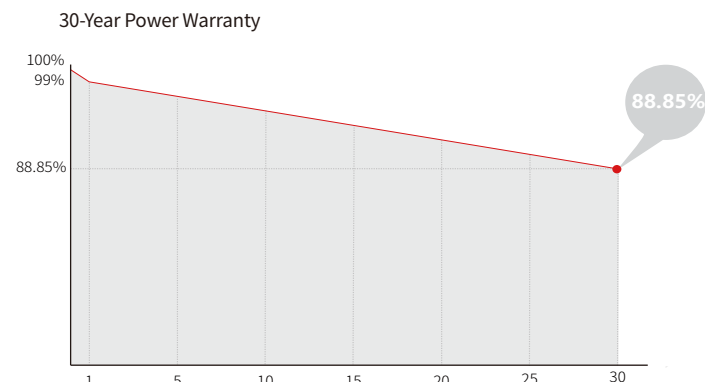
**0~3%**  
POWER  
TOLERANCE

**<1%**  
FIRST YEAR  
POWER DEGRADATION

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

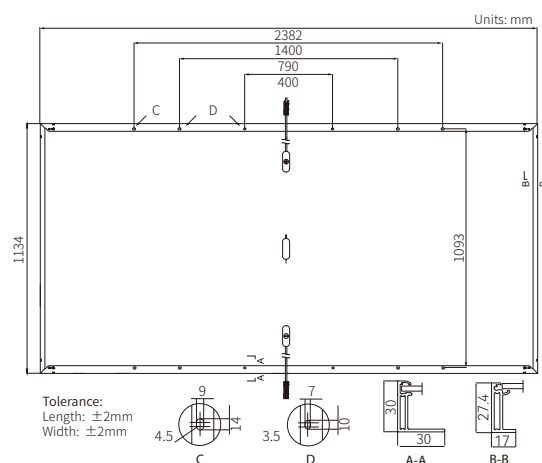
**BC-CELL**  
LOWER OPERATING  
TEMPERATURE

### Additional Value



### Mechanical Parameters

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Cell Orientation | 144 (6×24)                                                          |
| Junction Box     | IP68, three diodes                                                  |
| Output Cable     | 4mm <sup>2</sup> , +400, -200mm/±1400mm<br>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        | 35pcs per pallet / 140pcs per 20' GP / 700pcs 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                      | LR7-72HVHF-640M |       | LR7-72HVHF-645M |       | LR7-72HVHF-650M |       | LR7-72HVHF-655M |       | LR7-72HVHF-660M |       | LR7-72HVHF-665M |       | LR7-72HVHF-670M |       |
|----------------------------------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| Testing Condition                | 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 | 15.69           | 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 |