

# Hi-MO **X10** Scientist

## LR8-66HVD 640~665M

- **Advanced:** N-TaiRay + HPBC 2.0 + OBB
- **Value-Added:** Power Leads by 30W+, A+ Anti-Shading
- **Aesthetic:** No Frontal Gridlines, Scenario Integration
- **Safe:** Prevent Localized Overheating, Less Micro-Crack



15-year Warranty for  
Materials and Processing



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

**LONGi**



**24.62%**  
MAX MODULE  
EFFICIENCY

**0~3%**  
POWER  
TOLERANCE

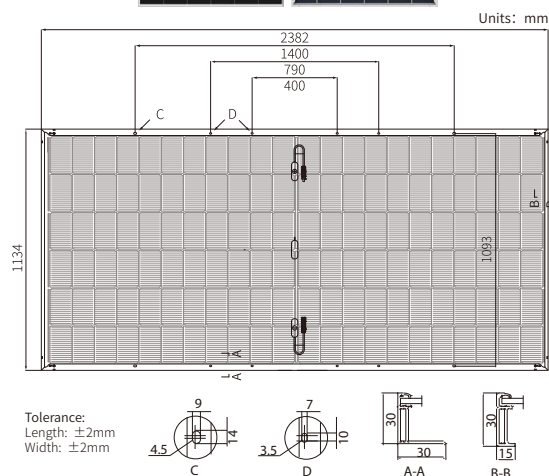
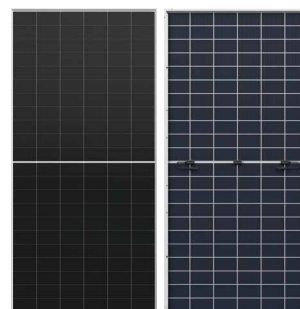
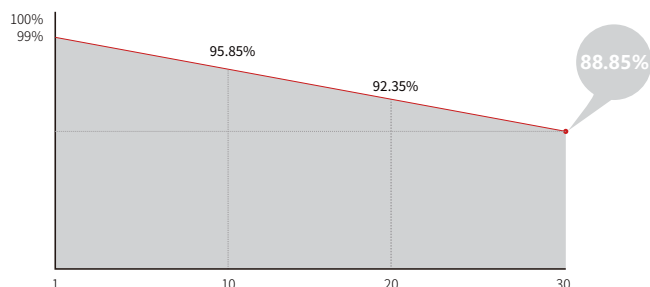
**<1%**  
FIRST YEAR  
POWER DEGRADATION

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

**BC-CELL**  
LOWER OPERATING  
TEMPERATURE

## Additional Value

### 30-Year Power Warranty



## Mechanical Parameters

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Cell Orientation | 132 (6×22)                                                          |
| Junction Box     | IP68, three diodes                                                  |
| Output Cable     | 4mm <sup>2</sup> , +400, -200mm/±1400mm<br>length can be customized |
| Glass            | Dual glass, 2.0+2.0mm semi-tempered glass                           |
| Frame            | Anodized aluminum alloy frame                                       |
| Weight           | 33.5kg                                                              |
| 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 Test uncertainty for Pmax:  $\pm 3\%$

| Module Type                      | LR8-66HVD-640M | LR8-66HVD-645M | LR8-66HVD-650M | LR8-66HVD-655M | LR8-66HVD-660M | LR8-66HVD-665M |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Testing Condition                | STC            | STC            | STC            | STC            | STC            | STC            |
| Maximum Power (Pmax/W)           | 640            | 645            | 650            | 655            | 660            | 665            |
| Open Circuit Voltage (Voc/V)     | 49.52          | 49.62          | 49.72          | 49.82          | 49.92          | 50.02          |
| Short Circuit Current (Isc/A)    | 16.38          | 16.46          | 16.54          | 16.62          | 16.70          | 16.78          |
| Voltage at Maximum Power (Vmp/V) | 40.78          | 40.88          | 40.98          | 41.08          | 41.18          | 41.28          |
| Current at Maximum Power (Imp/A) | 15.69          | 15.78          | 15.86          | 15.94          | 16.03          | 16.11          |
| Module Efficiency(%)             | 23.69          | 23.88          | 24.06          | 24.25          | 24.43          | 24.62          |

## Electrical characteristics with different rear side power gain (Taking 645W as the baseline)

| Pmax /W | Voc/V | Isc /A | Vmp/V | Imp /A | Pmax gain |
|---------|-------|--------|-------|--------|-----------|
| 677     | 49.62 | 17.28  | 40.88 | 16.57  | 5%        |
| 710     | 49.62 | 18.11  | 40.88 | 17.36  | 10%       |
| 744     | 49.72 | 18.93  | 40.98 | 18.15  | 15%       |
| 776     | 49.72 | 19.75  | 40.98 | 18.94  | 20%       |
| 808     | 49.72 | 20.58  | 40.98 | 19.73  | 25%       |

## Operating Parameters

|                                    |               |
|------------------------------------|---------------|
| Operational Temperature            | -40°C ~ +85°C |
| Power Output Tolerance             | 0 ~ 3%        |
| Maximum System Voltage             | DC1500V (IEC) |
| Maximum Series Fuse Rating         | 35A           |
| Nominal Operating Cell Temperature | 45±2°C        |
| Protection Class                   | Class II      |
| Bifaciality                        | 75±5%         |
| 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 |