

# Hi-MO 7 Preliminary

## LR8-48HGD 430~455M

- Advanced HPDC cell technology delivers superior module efficiency and power
- High bifaciality and excellent power temperature coefficient achieves high energy yield
- LONGi lifecycle quality ensures long-term performance

12

12-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

# LONGi



**22.8%**  
MAX MODULE  
EFFICIENCY

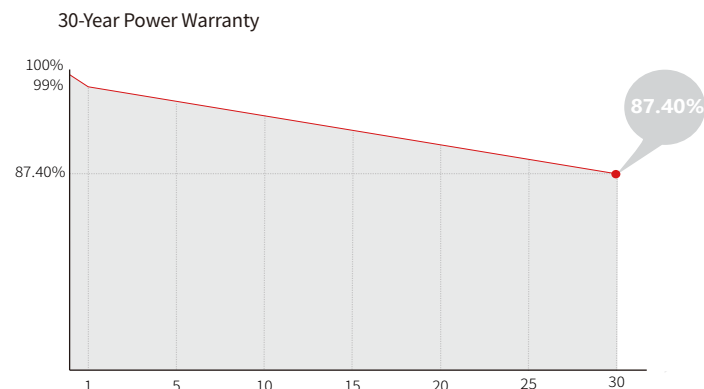
**0~3%**  
POWER  
TOLERANCE

**<1%**  
FIRST YEAR  
POWER DEGRADATION

**0.4%**  
YEAR 2-30  
POWER DEGRADATION

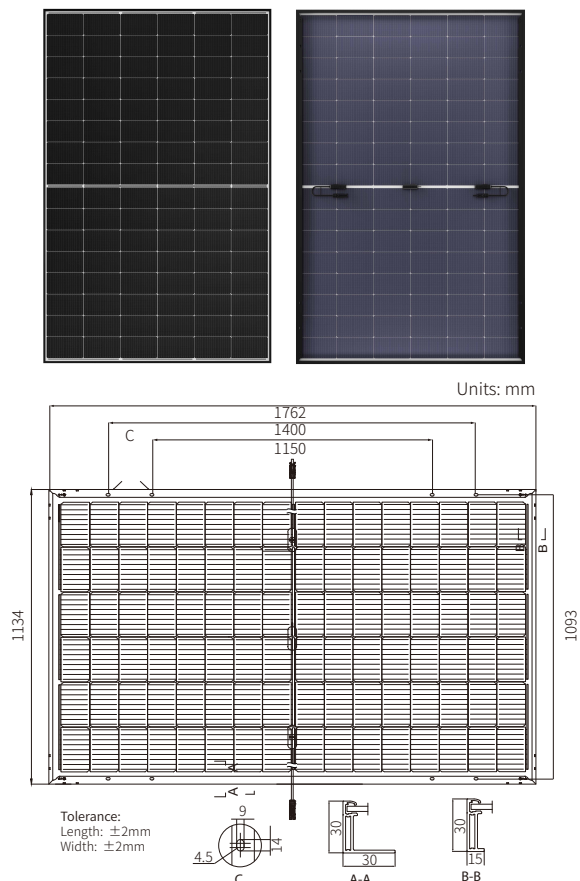
**HALF-CELL**  
LOWER OPERATING  
TEMPERATURE

## Additional Value



## Mechanical Parameters

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Cell Orientation | 96 (6×16)                                                           |
| Junction Box     | IP68, three diodes                                                  |
| Output Cable     | 4mm <sup>2</sup> , +400, -200mm/±1400mm<br>length can be customized |
| Glass            | Dual glass, 2.0+1.6mm semi-tempered glass                           |
| Frame            | Anodized aluminum alloy frame                                       |
| Weight           | 23.0kg                                                              |
| Dimension        | 1762×1134×30mm                                                      |
| Packaging        | 36pcs per pallet / 216pcs per 20' GP / 864pcs 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 P<sub>max</sub>: ±3%

| Module Type                                   | LR8-48HGD-430M |        | LR8-48HGD-435M |        | LR8-48HGD-440M |        | LR8-48HGD-445M |        | LR8-48HGD-450M |        | LR8-48HGD-455M |        |
|-----------------------------------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| Testing Condition                             | STC            | NOCT   | STC            | NOCT   | STC            | NOCT   | STC            | NOCT   | STC            | NOCT   | STC            | NOCT   |
| Maximum Power (P <sub>max</sub> /W)           | 430            | 327.30 | 435            | 331.10 | 440            | 334.90 | 445            | 338.80 | 450            | 342.60 | 455            | 346.40 |
| Open Circuit Voltage (V <sub>oc</sub> /V)     | 34.56          | 32.84  | 34.70          | 32.98  | 34.84          | 33.11  | 34.98          | 32.24  | 35.12          | 33.38  | 35.26          | 33.51  |
| Short Circuit Current (I <sub>sc</sub> /A)    | 15.81          | 12.70  | 15.91          | 12.78  | 16.01          | 12.86  | 16.11          | 12.94  | 16.21          | 13.02  | 16.30          | 13.09  |
| Voltage at Maximum Power (V <sub>mp</sub> /V) | 28.47          | 27.06  | 28.61          | 27.19  | 28.75          | 27.32  | 28.89          | 27.46  | 29.03          | 27.59  | 29.17          | 27.72  |
| Current at Maximum Power (I <sub>mp</sub> /A) | 15.11          | 12.10  | 15.21          | 12.18  | 15.31          | 12.26  | 15.41          | 12.34  | 15.51          | 12.42  | 15.60          | 12.50  |
| Module Efficiency(%)                          | 21.5           |        | 21.8           |        | 22.0           |        | 22.3           |        | 22.5           |        | 22.8           |        |

## Operating Parameters

|                                    |                           |
|------------------------------------|---------------------------|
| Operational Temperature            | -40°C ~ +85°C             |
| Power Output Tolerance             | 0 ~ 3%                    |
| Maximum System Voltage             | DC1500V (IEC/UL)          |
| Maximum Series Fuse Rating         | 35A                       |
| Nominal Operating Cell Temperature | 45±2°C                    |
| Protection Class                   | Class II                  |
| Bifacial Rate                      | 80±5%                     |
| Fire Rating                        | UL Type 38<br>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 I <sub>sc</sub>  | +0.045%/°C |
| Temperature Coefficient of V <sub>oc</sub>  | -0.230%/°C |
| Temperature Coefficient of P <sub>max</sub> | -0.280%/°C |