

# Hi-MO 4<sub>m</sub>

## LR4-72HPH 445~465M

- Suitable for ground power plants and distributed projects
- Advanced module technology delivers superior module efficiency
  - M6 Gallium-doped Wafer
  - 9-busbar Half-cut Cell
- Excellent outdoor power generation performance
- High module quality ensures long-term reliability

### 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

TS62941: Guideline for module design qualification and type approval

# LONGi



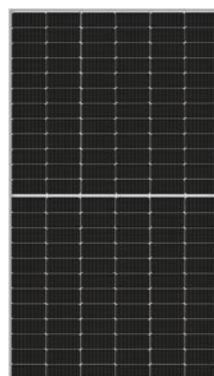
**21.4%**  
MAX MODULE  
EFFICIENCY

**0~3%**  
POWER  
TOLERANCE

**<2%**  
FIRST YEAR  
POWER DEGRADATION

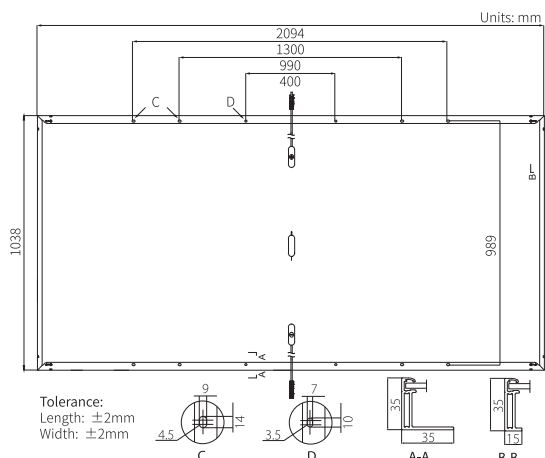
**0.55%**  
YEAR 2-25  
POWER DEGRADATION

**HALF-CELL**  
Lower operating temperature



## 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           | 24.3kg                                                              |
| Dimension        | 2094×1038×35mm                                                      |
| Packaging        | 30pcs per pallet / 150pcs per 20' GP / 660pcs 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                                   | LR4-72HPH-445M |       | LR4-72HPH-450M |       | LR4-72HPH-455M |       | LR4-72HPH-460M |       | LR4-72HPH-465M |       |
|-----------------------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| Testing Condition                             | STC            | NOCT  | STC            | NOCT  | STC            | NOCT  | STC            | NOCT  | STC            | NOCT  |
| Maximum Power (P <sub>max</sub> /W)           | 445            | 334.3 | 450            | 338.0 | 455            | 341.8 | 460            | 345.5 | 465            | 349.3 |
| Open Circuit Voltage (V <sub>oc</sub> /V)     | 49.1           | 46.2  | 49.3           | 46.4  | 49.5           | 46.5  | 49.7           | 46.7  | 49.9           | 46.9  |
| Short Circuit Current (I <sub>sc</sub> /A)    | 11.53          | 9.35  | 11.60          | 9.41  | 11.66          | 9.46  | 11.73          | 9.51  | 11.79          | 9.56  |
| Voltage at Maximum Power (V <sub>mp</sub> /V) | 41.3           | 38.4  | 41.5           | 38.6  | 41.7           | 38.8  | 41.9           | 39.0  | 42.1           | 39.2  |
| Current at Maximum Power (I <sub>mp</sub> /A) | 10.78          | 8.70  | 10.85          | 8.75  | 10.92          | 8.81  | 10.98          | 8.86  | 11.05          | 8.91  |
| Module Efficiency(%)                          | 20.5           |       | 20.7           |       | 20.9           |       | 21.2           |       | 21.4           |       |

## Operating Parameters

|                                               |                               |
|-----------------------------------------------|-------------------------------|
| Operational Temperature                       | -40°C ~ +85°C                 |
| Power Output Tolerance                        | 0 ~ 3%                        |
| V <sub>oc</sub> and I <sub>sc</sub> Tolerance | ±3%                           |
| Maximum System Voltage                        | DC1500V (IEC/UL)              |
| Maximum Series Fuse Rating                    | 20A                           |
| Nominal Operating Cell Temperature            | 45±2°C                        |
| Protection Class                              | Class II                      |
| Fire Rating                                   | UL type 1 or 2<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>  | +0.050%/°C |
| Temperature Coefficient of V <sub>oc</sub>  | -0.265%/°C |
| Temperature Coefficient of P <sub>max</sub> | -0.340%/°C |