

# Hi-MO 4

## LR4-72HBD 425~455M

- Suitable for ground power plants and large C&I projects
- Advanced module technology delivers superior module efficiency
  - M6 Gallium-doped Wafer
  - 9-busbar Half-cut Cell
- Globally validated bifacial energy yield
- High module quality ensures long-term reliability



12-year Warranty for  
Materials and Processing



30-year Warranty for Extra  
Linear Power Output

DATA VERIFIED BY

**SOLAR ANALYTICA.**

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001:2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System

TS62941: Guideline for module design qualification and type approval

ISO 45001: 2018: Occupational Health and Safety

# LONGi



**20.9%**  
MAX MODULE  
EFFICIENCY

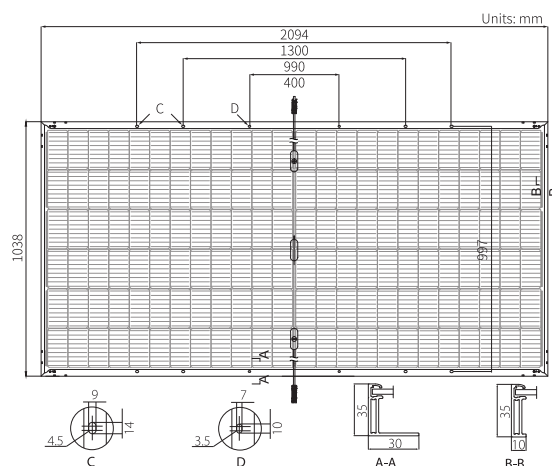
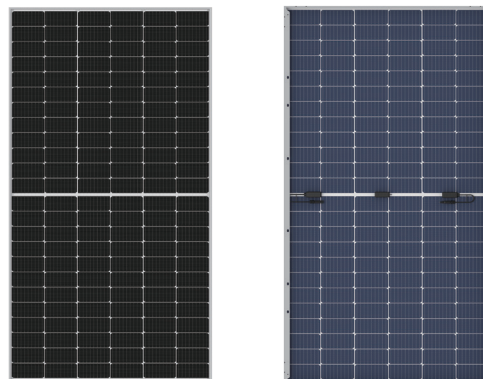
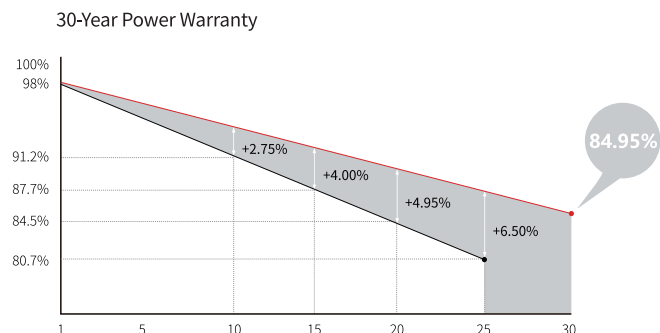
**0~+5W**  
POWER  
TOLERANCE

**<2%**  
FIRST YEAR  
POWER DEGRADATION

**0.45%**  
YEAR 2-30  
POWER DEGRADATION

**HALF-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            | Dual glass, 2.0mm coated tempered glass                             |
| Frame            | Anodized aluminum alloy frame                                       |
| Weight           | 27.5kg                                                              |
| Dimension        | 2094×1038×35mm                                                      |
| Packaging        | 31pcs per pallet / 155pcs per 20' GP / 682pcs 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%

| Electrical Characteristics       |                | LR4-72HBD-425M 1000W/m² 25 °C |                |       |                | LR4-72HBD-430M 1000W/m² 25 °C |                |       |                | LR4-72HBD-435M 1000W/m² 25 °C |                |       |                | LR4-72HBD-440M 1000W/m² 25 °C |     |      |     | LR4-72HBD-445M 1000W/m² 25 °C |     |      |     | LR4-72HBD-450M 1000W/m² 25 °C |     |      |     | LR4-72HBD-455M 1000W/m² 25 °C |     |      |  |
|----------------------------------|----------------|-------------------------------|----------------|-------|----------------|-------------------------------|----------------|-------|----------------|-------------------------------|----------------|-------|----------------|-------------------------------|-----|------|-----|-------------------------------|-----|------|-----|-------------------------------|-----|------|-----|-------------------------------|-----|------|--|
|                                  |                | STC                           |                | NOCT  |                | STC                           |                | NOCT  |                | STC                           |                | NOCT  |                | STC                           |     | NOCT |     | STC                           |     | NOCT |     | STC                           |     | NOCT |     | STC                           |     | NOCT |  |
| Module Type                      | LR4-72HBD-425M |                               | LR4-72HBD-430M |       | LR4-72HBD-435M |                               | LR4-72HBD-440M |       | LR4-72HBD-445M |                               | LR4-72HBD-450M |       | LR4-72HBD-455M |                               |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Testing Condition                | STC            | NOCT                          | STC            | NOCT  | STC            | NOCT                          | STC            | NOCT  | STC            | NOCT                          | STC            | NOCT  | STC            | NOCT                          | STC | NOCT | STC | NOCT                          | STC | NOCT | STC | NOCT                          | STC | NOCT | STC | NOCT                          | STC | NOCT |  |
| Maximum Power (Pmax/W)           | 425            | 317.4                         | 430            | 321.1 | 435            | 324.9                         | 440            | 328.6 | 445            | 332.3                         | 450            | 336.1 | 455            | 339.8                         |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Open Circuit Voltage (Voc/V)     | 48.7           | 45.6                          | 48.9           | 45.8  | 49.1           | 45.9                          | 49.2           | 46.0  | 49.4           | 46.2                          | 49.6           | 46.4  | 49.8           | 46.6                          |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Short Circuit Current (Isc/A)    | 11.22          | 9.06                          | 11.30          | 9.13  | 11.36          | 9.18                          | 11.45          | 9.25  | 11.52          | 9.30                          | 11.58          | 9.36  | 11.65          | 9.41                          |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Voltage at Maximum Power (Vmp/V) | 40.4           | 37.7                          | 40.6           | 37.9  | 40.8           | 38.0                          | 41.0           | 38.2  | 41.2           | 38.4                          | 41.4           | 38.6  | 41.6           | 38.8                          |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Current at Maximum Power (Imp/A) | 10.52          | 8.42                          | 10.60          | 8.49  | 10.66          | 8.54                          | 10.73          | 8.60  | 10.80          | 8.65                          | 10.87          | 8.70  | 10.93          | 8.76                          |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |
| Module Efficiency(%)             | 19.6           |                               | 19.8           |       | 20.0           |                               | 20.2           |       | 20.5           |                               | 20.7           |       | 20.9           |                               |     |      |     |                               |     |      |     |                               |     |      |     |                               |     |      |  |

## Operating Parameters

|                                    |                  |
|------------------------------------|------------------|
| Operational Temperature            | -40°C ~ +85°C    |
| Power Output Tolerance             | 0 ~ +5 W         |
| Voc and Isc Tolerance              | ±3%              |
| Maximum System Voltage             | DC1500V (IEC/UL) |
| Maximum Series Fuse Rating         | 25A              |
| Nominal Operating Cell Temperature | 45±2°C           |
| Protection Class                   | Class II         |
| Fire Rating                        | UL type 29       |
| Bifaciality                        | 70±5%            |

## 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  | -0.284%/°C |
| Temperature Coefficient of Pmax | -0.350%/°C |