

Hi-Mo **4**

LR4-72HBD **440~460M**

- 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

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

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21.2%
MAX MODULE
EFFICIENCY

0~+5%
POWER
TOLERANCE

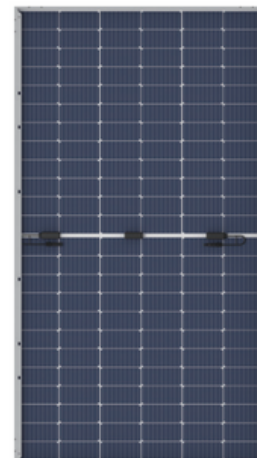
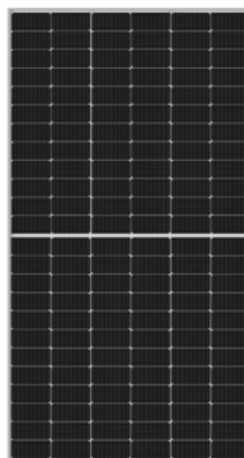
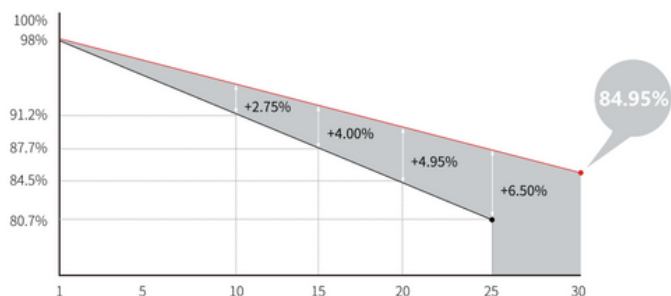
<2%
FIRST YEAR POWER
DEGRADATION

0.45%
YEAR 2-30
POWER DEGRADATION

HALF-CELL
Lower operating temperature

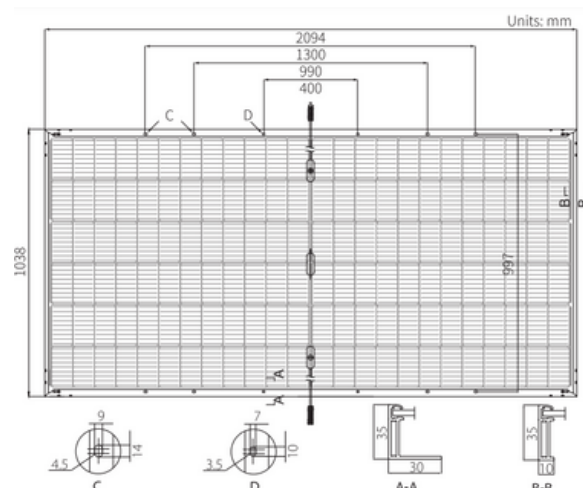
Additional Value

30-Year Power Warranty



Mechanical Parameters

Cell Orientation	144 (6x24)
Junction Box	IP68, three diodes
Output Cable	4mm ² , positive 400 / negative 200mm length can be customized
Glass	Dual glass, 2.0mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	27.5kg
Dimension	2094X1038X35mm
Packaging	31 pcs per pallet/ 155pcs per 20' GP/ 682 pcs per 40' HC



Electrical Characteristics

STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800WM² 20°C 1m/s Test uncertainty for Pmax:±3%

Module Type	LR4-72HBD-440M		LR4-72HBD-445M		LR4-72HBD-450M		LR4-72HBD-455M		LR4-72HBD-460M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	440	329.8	445	333.6	450	337.3	455	341.1	460	344.8
Open Circuit Voltage (Voc/V)	49.2	46.3	49.4	46.5	49.6	46.6	49.8	46.8	50.0	47.0
Short Circuit Current (Isc/A)	11.45	9.23	11.52	9.28	11.58	9.34	11.65	9.39	11.73	9.45
Voltage at Maximum Power (Vmp/V)	41.0	38.4	41.2	38.6	41.4	38.8	41.6	38.9	41.8	39.1
Current at Maximum Power (Imp/A)	10.73	8.60	10.80	8.65	10.87	8.70	10.93	8.76	11.01	8.82
Module Efficiency (%)	20.2		20.5		20.7		20.9		21.2	

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
Bifaciality	70±5%
Fire Rating	UL Type 29 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	-0.265%/°C
Temperature Coefficient of Pmax	-0.340%/°C

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LONGI Propelling the transformation

JOG
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