

Hi-MO 7

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

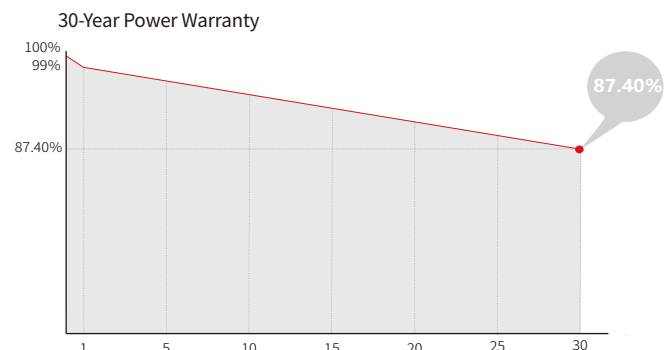
0~3%
POWER
TOLERANCE

<1%
FIRST YEAR
POWER DEGRADATION

0.4%
YEAR 2-30
POWER DEGRADATION

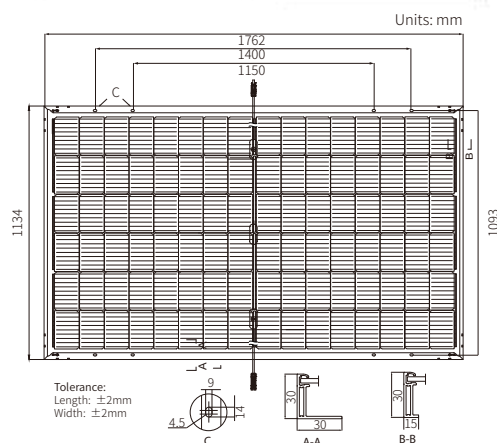
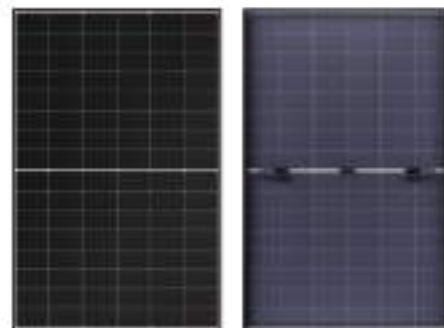
HALF-CELL
LOWER OPERATING
TEMPERATURE

Additional Value



Mechanical Parameters

Cell Orientation	96 (6×16)
Junction Box	IP68
Output Cable	4mm ² , +400, -200mm/±1200mm 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/m² 25°C

NOCT: AM1.5 800W/m² 20°C 1m/s

Test uncertainty for P_{max}: ±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 _{max} /W)	430	327	435	331	440	335	445	339	450	343	455	346
Open Circuit Voltage (V _{oc} /V)	34.77	33.04	34.91	33.17	35.05	33.30	35.19	33.44	35.33	33.57	35.47	33.70
Short Circuit Current (I _{sc} /A)	15.71	12.62	15.81	12.70	15.91	12.78	16.01	12.86	16.12	12.95	16.22	13.02
Voltage at Maximum Power (V _{mp} /V)	29.06	27.62	29.20	27.75	29.34	27.88	29.48	28.02	29.62	28.15	29.76	28.28
Current at Maximum Power (I _{mp} /A)	14.80	11.85	14.90	11.93	15.00	12.01	15.10	12.11	15.20	12.18	15.30	12.25
Module Efficiency(%)	21.5		21.8		22.0		22.3		22.5		22.8	

Electrical characteristics with different rear side power gain (reference to 440W front)

P _{max} /W	V _{oc} /V	I _{sc} /A	V _{mp} /V	I _{mp} /A	P _{max} gain
467	35.19	16.82	29.48	15.85	5%
490	35.19	17.62	29.48	16.60	10%
512	35.29	18.42	29.58	17.30	15%
534	35.29	19.22	29.58	18.05	20%
556	35.29	20.02	29.58	18.80	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
Bifacial Rate	80±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 I _{sc}	+0.045%/°C
Temperature Coefficient of V _{oc}	-0.230%/°C
Temperature Coefficient of P _{max}	-0.280%/°C