# Hi-MO 5

# LR5-54HABB 390~415M

- Suitable for distributed projects
- Advanced module technology delivers superior module efficiency
  - · M10 Gallium-doped Wafer · Integrated Segmented Ribbons · 9-busbar Half-cut Cell
- Globally validated bifacial energy yield
- High module quality ensures long-term reliability





### Complete System and **Product Certifications**

IEC 61215, IEC 61730, UL61730

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











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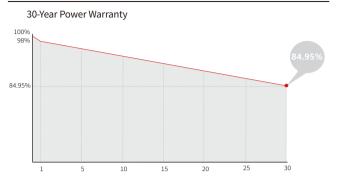
21.3% MAX MODULE EFFICIENCY 0~3%
POWER
TOLERANCE

FIRST YEAR
POWER DEGRADATION

0.45% YEAR 2-30 POWER DEGRADATION

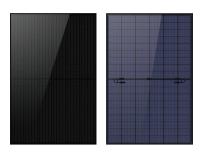
**HALF-CELL**Lower operating temperature

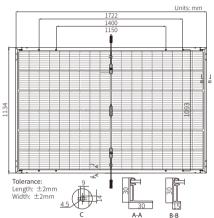
#### **Additional Value**



#### **Mechanical Parameters**

Cell Orientation	108 (6×18)			
Junction Box	IP68			
Connector Type	EVO2			
Output Cable	4mm $^2$ , $\pm$ 1200mm, length can be customized			
Glass	Dual glass, 2.0+1.6mm heat strengthened glass			
Frame	Anodized aluminum alloy frame			
Weight	22.5kg			
Dimension	1722×1134×30mm			
	36pcs per pallet / 216pcs per 20' GP			
Packaging	936pcs per 40' HC			
	792pcs(only for USA)			





<b>Electrical Characteristics</b>	STC	:AM1.5	L000W/m <sup>2</sup>	25°C	NOCT : AM	1.5 800W/	m² 20°C 1	L <b>m/s</b> Te	st uncertainty fo	r Pmax: ±3%		
Module Type	LR5-54H	ABB-390M	LR5-54H	ABB-395M	LR5-54H	IABB-400M	LR5-54H	ABB-405M	LR5-54H	ABB-410M	LR5-54H	ABB-415M
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	390	291.5	395	295.2	400	299.0	405	302.7	410	306.5	415	310.2
Open Circuit Voltage (Voc/V)	36.58	34.39	36.81	34.61	37.05	34.84	37.29	35.06	37.53	35.29	37.77	35.51
Short Circuit Current (Isc/A)	13.57	10.95	13.65	11.01	13.72	11.07	13.79	11.13	13.87	11.19	13.94	11.25
Voltage at Maximum Power (Vmp/V)	30.47	28.43	30.70	28.64	30.94	28.86	31.18	29.09	31.42	29.31	31.66	29.54
Current at Maximum Power (Imp/A)	12.80	10.26	12.87	10.31	12.93	10.36	12.99	10.41	13.05	10.45	13.11	10.50
Module Efficiency(%)	2	0.0	2	0.2	2	0.5	5	0.7	5	1.0	2	01.3

### Electrical characteristics with different rear side power gain (reference to 405W front)

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
425	37.29	14.48	31.18	13.64	5%
446	37.29	15.17	31.18	14.29	10%
466	37.39	15.86	31.28	14.94	15%
486	37.39	16.55	31.28	15.59	20%
506	37.39	17.24	31.28	16.24	25%

**Operating Parameters** 

operating randitieters		
Operational Temperature	-40°C ~ +85°C	
Power Output Tolerance	0 ~ 3%	
Maximum System Voltage	DC1500V (IEC/UL)	
Maximum Series Fuse Rating	30A	
Nominal Operating Cell Temperature	45±2°C	
Protection Class	Class II	
Bifaciality	70±5%	
Fire Dating	UL type 38	
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 Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.265%/°C
Temperature Coefficient of Pmax	-0.340%/°C

