

# 420W-440W

M10 108HC All-Black Double-Glass

## KEY FEATURES



### High Efficiency

Leading module efficiency in industry, the highest efficiency up to 23.82%



### Excellent Appearance and Performance

Bifacial solar cell, symmetrical design, low risk of micro-crack



### High Reliability

Passed 3\*IEC standard test, 15 years materials warranty, 30 years output linear power warranty



### Excellent Rear Side Power Generation

Bifaciality is up to 80%, up to 30% more energy yield than conventional modules



### Better low irradiance performance

Higher power output even under low irradiance environments like on cloudy or foggy days



### Extensive Application Scenes

More extensive application scenes, such as snow field, high humidity, vertical installation, strong wind and desert

Maximum Power Output

**440W**

Maximum Module Efficiency

**22.54%**

Power Output Tolerance

**0-+3%**

## Product and Quality Certifications

IEC 61215, IEC 61730

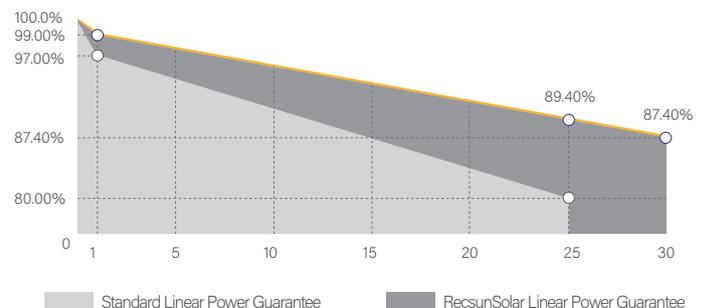
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

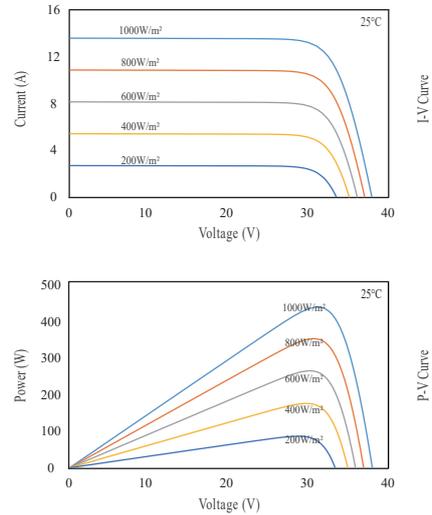
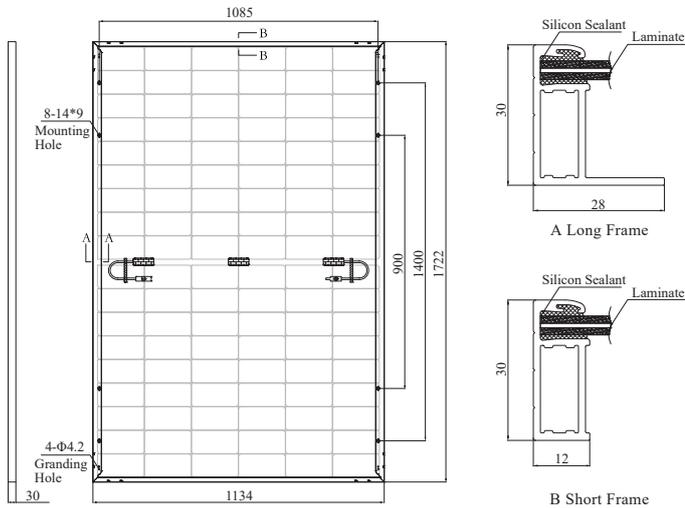
IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test

IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



## Leading Product and Power Warranty

-1.00% 1st-Year Degradation   -0.40% Annual Degradation   15 Materials and Workmanship Warranty   30 Linear Power Warranty



**ELECTRICAL PARAMETERS** (Test Condition is Based on the Front Side)

Module Type	N420H108M10D-AB		N425H108M10D-AB		N430H108M10D-AB		N435H108M10D-AB		N440H108M10D-AB	
	STC	NOTC								
Nominal Max. Power(Pmax/W)	420	318	425	322	430	326	435	330	440	334
Open Circuit Voltage(Voc/V)	37.90	36.20	38.10	36.40	38.30	36.60	38.50	36.80	38.70	37.00
Short Circuit Current(Isc/A)	13.98	11.27	14.05	11.33	14.12	11.38	14.19	11.44	14.26	11.50
Maximum Power Voltage(Vmp/V)	31.90	30.00	32.10	30.20	32.30	30.40	32.50	30.60	32.70	30.80
Maximum Power Current(Imp/A)	13.17	10.62	13.24	10.67	13.32	10.74	13.39	10.80	13.46	10.88
Efficiency(%)	21.50%		21.76%		22.02%		22.27%		22.54%	

STC: Irradiance = 1000 W/m<sup>2</sup>, Cell Temperature = 25°C, AM = 1.5, Average efficiency reduction of 4.5% at 200W/m<sup>2</sup>.  
 NOTC: Irradiance = 800 W/m<sup>2</sup>, Ambient Temperature = 20°C, AM = 1.5, Wind Speed = 1 m/s.

**MECHANICAL PARAMETERS**

Cell Type	182*91mm, 108HC	Connector	MC4 Original/Compatible
Module Size&Weight	1722×1134×30mm, 24.5Kg	Junction Box	IP68, 3 Bypass Diodes
Glass	2.0mm AR Coated Heat Strengthened Glass	Frame	Anodized Aluminium Alloy(Black)
Backsheet	2.0mm Ultra-Clear Float Glass	Cable	4mm <sup>2</sup> , Cable Length 300mm(customized)

**TEMPERATURE COEFFICIENTS**

Nominal Operating Cell Temperature	45°C(± 2°C)	Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Pmax	-0.310%/°C	Temperature Coefficient of Isc	+0.046%/°C

**BACKSIDE POWER GAIN 10% FOR REFERENCE**

Module Frontside Power(W)	420	425	430	435	440
Nominal Max. Power(Pmax/W)	462.0	467.5	473.0	478.5	484.0
Open Circuit Voltage(Voc/V)	37.90	38.10	38.30	38.50	38.70
Short Circuit Current(Isc/A)	15.18	15.87	16.56	17.25	17.94
Max. Power Voltage(Vmp/V)	31.90	32.10	32.30	32.50	32.70
Max. Power Current(Imp/A)	14.48	14.56	14.64	14.72	14.80

**OPERATING PARAMETERS**

Max. System Voltage	DC1500V
Power Tolerance	0 - +3%
Operating Temperature	-40°C - +85°C
Max. Fuse Rated Current	30A
Front Static Load	Snow 5400Pa, Wind 2400Pa
Packaging Data	36PCS/Pallet; 936PCS/40HQ