

# 610W-630W

M10R Bifacial 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, vertical installation, high humidity, strong wind and desert

Maximum Power Output

**630W**

Maximum Module Efficiency

**23.32%**

Power Output Tolerance

**0-+3%**

## Product and Quality Certifications

IEC 61215, IEC 61730

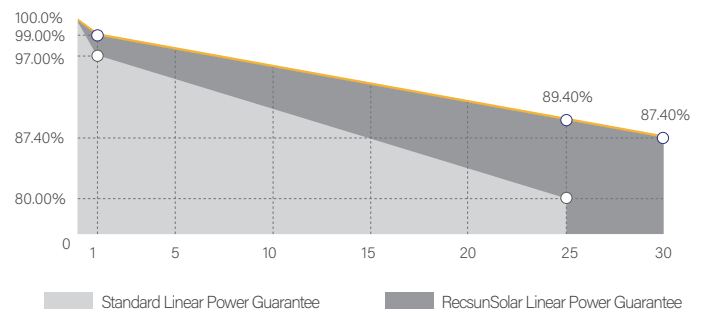
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

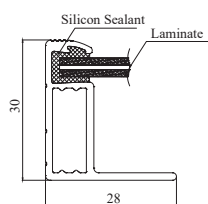
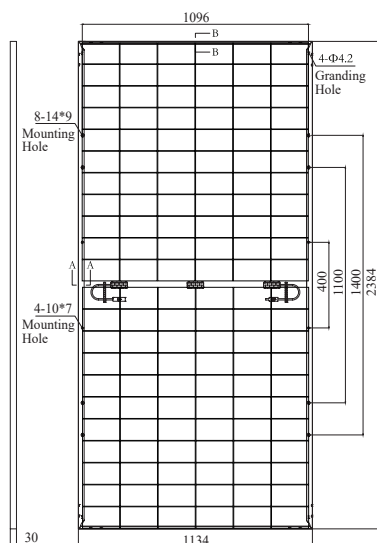
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



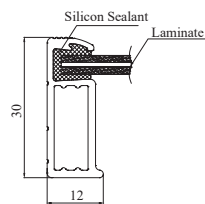
## Leading Product and Power Warranty

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

ENGINEERING DRAWING (mm)

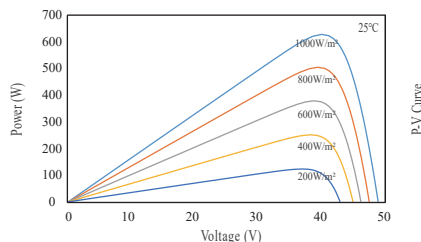
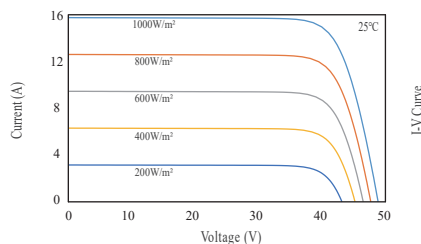


A Long Frame



B Short Frame

CHARACTERISTIC CURVES (620W)



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

Module Type	N610H132M10RD		N615H132M10RD		N620H132M10RD		N625H132M10RD		N630H132M10RD	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power(Pmax/W)	610	460.12	615	463.89	620	467.67	625	471.44	630	475.21
Open Circuit Voltage(Voc/V)	48.55	45.64	48.72	45.80	48.89	45.95	49.06	46.11	50.97	46.27
Short Circuit Current(Isc/A)	15.83	12.70	15.91	12.76	15.98	12.82	16.05	12.88	16.13	12.94
Maximum Power Voltage(Vmp/V)	40.46	38.03	40.60	38.16	40.74	38.30	40.88	38.43	41.02	38.56
Maximum Power Current(Imp/A)	15.08	12.10	15.15	12.16	15.22	12.21	15.29	12.77	15.36	12.32
Efficiency(%)	22.58%		22.77%		22.95%		23.14%		23.32%	

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>.

NOCT: Irradiance = 800 W/m<sup>2</sup>, Ambient Temperature = 20°C, AM = 1.5, Wind Speed = 1 m/s.

MECHANICAL PARAMETERS

Cell Type	182*105mm, 132HC	Connector	MC4 Original/Compatible
Module Size&Weight	2384×1134×30mm, 33.5Kg	Junction Box	IP68, 3 Bypass Diodes
Glass	2.0mm AR Coated Heat Strengthened Glass	Frame	Anodized Aluminium Alloy(Sliver)
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)	610	615	620	625	630
Nominal Max. Power(Pmax/W)	671.0	676.5	682.0	687.5	693.0
Open Circuit Voltage(Voc/V)	48.55	48.72	48.89	49.06	50.97
Short Circuit Current(Isc/A)	17.52	17.60	17.68	17.76	17.85
Max. Power Voltage(Vmp/V)	40.46	40.60	40.74	40.88	41.02
Max. Power Current(Imp/A)	16.58	16.66	16.74	16.82	16.89

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; 720PCS/40HQ