



# 610W-630W

M10R Monofacial Single-Glass

## KEY FEATURES



### High Efficiency

Leading module efficiency in industry, the highest efficiency up to 23.32%



### 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

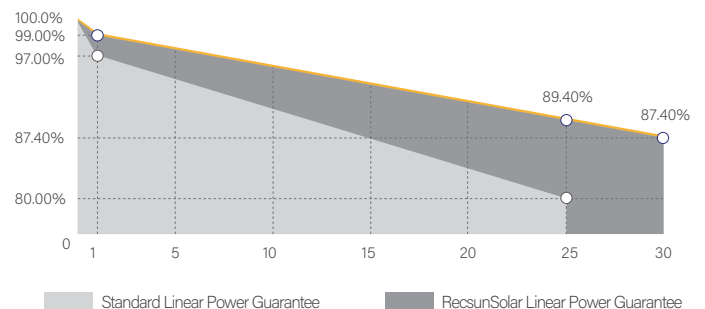
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

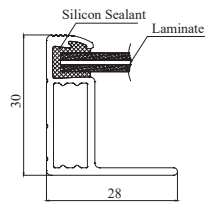
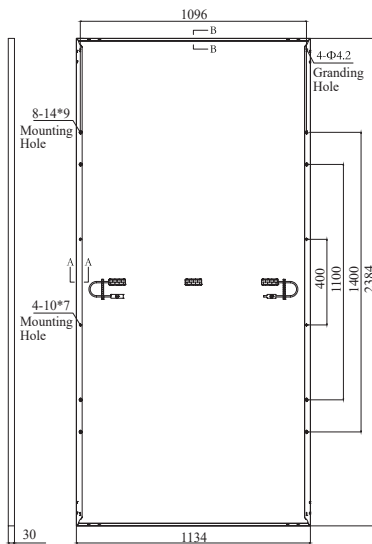
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



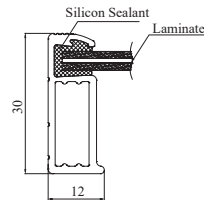
## Leading Product and Power Warranty

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

# ENGINEERING DRAWING (mm)

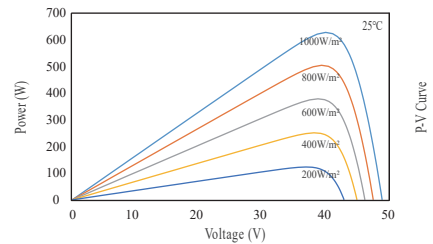
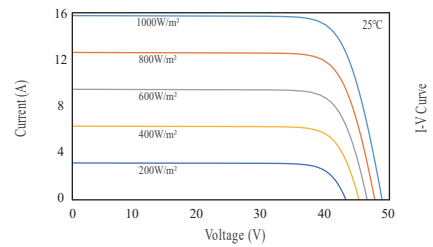


A Long Frame



B Short Frame

# CHARACTERISTIC CURVES (620W)



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

| Module Type                  | N610H132M10RS |        | N615H132M10RS |        | N620H132M10RS |        | N625H132M10RS |        | N630H132M10RS |        |
|------------------------------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| Testing Condition            | 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  |
| Maximun 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>.

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*105mm, 132HC                        | Connector    | MC4 Original/Compatible                           |
| Module Size&Weight | 2384×1134×30mm, 29.5Kg                  | Junction Box | IP68, 3 Bypass Diodes                             |
| Glass              | 3.2mm AR Coated Heat Strengthened Glass | Frame        | Anodized Aluminium Alloy(Sliver)                  |
| Backsheet          | White/Transparent, TPT/PET              | 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% (Transparent Backsheet Type)

|                              |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|
| 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 Temperatue    | -40°C - +85°C             |
| Max. Fuse Rated Current | 30A                       |
| Front Static Load       | Snow 5400Pa, Wind 2400Pa  |
| Packaging Data          | 36PCS/Pallet; 720PCS/40HQ |