







# 182 QN4MxxxH72(DH)-DGB

Monocrystalline Bifacial Double Glass Half Cell PV Module

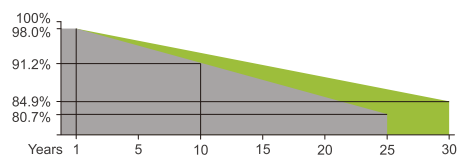
Power Output : 520W - 555W  
 Power Tolerance : 0W ~ +5W  
 Maximum Efficiency : 21.7%

## Highlights

-  Assembled with multi-busbar cells, reduce shading effect on the energy generation, lower risk of hot spot
-  Pass the test for weather resistance in harsh environments (salt mist, ammonia corrosion and sand).
-  Process optimization of high efficiency PERC solar cell and strict control on raw materials to ensure highly resistance against PID of PV module.
-  Better mechanical loading tolerance with the test front side 5400pa and back side 2400pa.
-  Series and parallel design, reduce the series resistance RS of module, reduce the loss of internal electrical performance, and improve the power generation capacity of whole system.
-  Additional safety Fire class Acertified.

## Offers Long-term Quality Assurance

- 12 years Product Warranty
- 30 years Linear Power Output Warranty
- The attenuation of the power output in the first year  $\leq 2\%$   
 The annual average attenuation after the first year  $\leq 0.45\%$



## Optional

- Connector  Original MC4
- Cable length  1000mm  900mm
- Frame  Black
- Solar Module Dimension  2250x1127x6mm
- Glass type  Glazed  Transparency

## Packaging

- Number of modules per pallet 31 pcs
- 17.5\*2.8m Flatbed loading 930 pcs
- 13.0\*2.35m Flatbed loading 682 pcs
- 40HQ Standard container 620 pcs

## Electrical performance parameters | STC

| Power Output                | Pmax(W) | 520   | 525   | 530   | 535   | 540   | 545   | 550   | 555   |
|-----------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Rated Power Maximum Voltage | Vmp(V)  | 40.60 | 40.80 | 40.90 | 41.00 | 41.10 | 41.30 | 41.50 | 41.70 |
| Rated Power Maximum Current | Imp(A)  | 12.81 | 12.87 | 12.97 | 13.07 | 13.13 | 13.19 | 13.25 | 13.31 |
| Open Circuit Voltage        | Voc(V)  | 49.20 | 49.40 | 49.50 | 49.60 | 49.70 | 49.90 | 50.10 | 50.30 |
| Short Circuit Current       | Isc(A)  | 13.57 | 13.63 | 13.73 | 13.83 | 13.89 | 13.95 | 14.01 | 14.07 |
| Module Efficiency           | (%)     | 20.3  | 20.5  | 20.7  | 20.9  | 21.1  | 21.3  | 21.5  | 21.7  |
| Power Tolerance             | (W)     | 0~+5W |       |       |       |       |       |       |       |

\* STC : 1000W/m<sup>2</sup> irradiance, 25°C module temperature, AM1.5 spectrum.  
 Power measurement error +/- 3%

## Electrical performance parameters | NMOT

| Power output                | Pmax (W) | 393.1 | 396.9 | 400.7 | 404.5 | 408.2 | 412.0 | 415.8 | 419.6 |
|-----------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Rated Power Maximum Voltage | Vmp (V)  | 37.64 | 37.82 | 37.91 | 38.01 | 38.10 | 38.29 | 38.47 | 38.66 |
| Rated Power Maximum Current | Imp (A)  | 10.44 | 10.49 | 10.57 | 10.65 | 10.70 | 10.75 | 10.80 | 10.85 |
| Open Circuit Voltage        | Voc (V)  | 46.74 | 46.93 | 47.03 | 47.12 | 47.22 | 47.41 | 47.60 | 47.79 |
| Short Circuit Current       | Isc (A)  | 10.87 | 10.90 | 10.99 | 11.06 | 11.11 | 11.16 | 11.21 | 11.26 |

\* NMOT:800W/m<sup>2</sup> irradiance, 20°C module temperature, 1m/s wind speed.  
 Power measurement error +/- 3%

## Electrical characteristics with different rear side power gain (545W)

| Double side power gain | Power output Pmax(W) | Open Circuit Voltage - Voc(V) | Short Circuit Current - Isc(A) | Rated Power Maximum Voltage - Vmp(V) | Rated Power Maximum Current - Imp(A) |
|------------------------|----------------------|-------------------------------|--------------------------------|--------------------------------------|--------------------------------------|
| 10%                    | 560                  | 49.92                         | 15.35                          | 41.32                                | 14.51                                |
| 15%                    | 627                  | 49.92                         | 16.04                          | 41.32                                | 15.17                                |
| 20%                    | 654                  | 49.92                         | 16.74                          | 41.32                                | 15.83                                |
| 25%                    | 681                  | 49.92                         | 17.44                          | 41.32                                | 16.49                                |

\* Rear side power gain : The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.  
 Power measurement error +/- 3%

## Structure Features

|                  |  |
|------------------|--|
| Solar Cell       | 182MONO(Half Cell)   |
| Solar Cell Array | 144 pcs(6×24)  |
| Module Dimension | 2256×1133×35mm   |
| Weight           | 32.3 kg  |
| Glass            | 2.0 mm highly transparent anti-reflection coating tempered glass |
| Back sheet       | 2.0 mm highly transparent tempered glass                         |
| Frame            | Anodized Aluminum Alloy  |
| Junction Box     | IP68 rated   |
| Cable            | 4mm <sup>2</sup> , L=300 mm, PV cable                            |
| Diode Quantity   | 3  |
| Wind Pressure    | 2400pa   |
| Snow Pressure    | 5400pa   |
| Connector        | MC4 Compatible   |

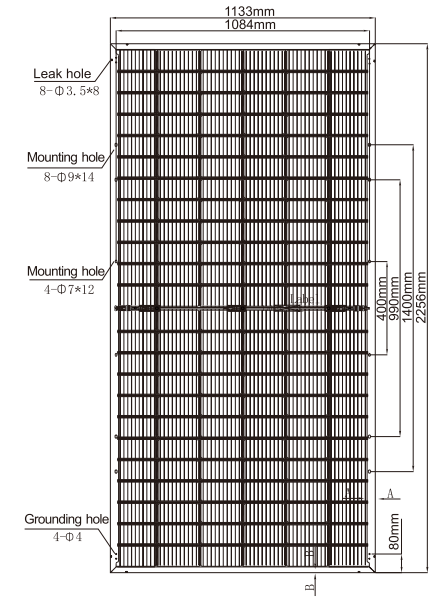
## Temperature Characteristics

|                                       |           |
|---------------------------------------|-----------|
| Solar Cells Rated Working Temperature | 44±2°C    |
| Temperature Coefficient (Isc)         | +0.06%/°C |
| Temperature Coefficient (Voc)         | -0.35%/°C |
| Temperature Coefficient (Pmax)        | -0.38%/°C |

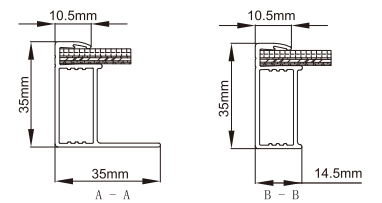
## Maximum Ratings

|                            |           |
|----------------------------|-----------|
| Working Temperature        | -40~+85°C |
| Maximum System Voltage     | 1500V DC  |
| Maximum Fuse Rated Current | 30A       |

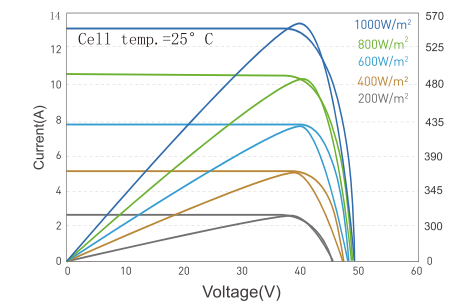
## Module Dimension



## Back View



## I-V curves/P-V curves of module under different irradiation(545w)



## I-V curves of module under different temperature(545w)

