

## Bifacial Double Glass Module

DAS-DH156NA

# 620W~645W

### Key Features



#### High Efficiency

Leading module efficiency in industry, up to 23.1%



#### 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 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 BIPV, snow field, vertical installation, high humidity, strong wind and desert region

Maximum Power Output

**645W**

Maximum Module Efficiency

**23.1%**

Power Output Tolerance

**0~+5W**

### Product and Quality Certifications

IEC 61215, IEC 61730

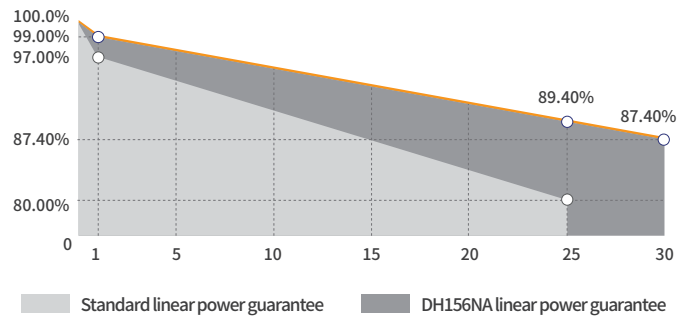
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

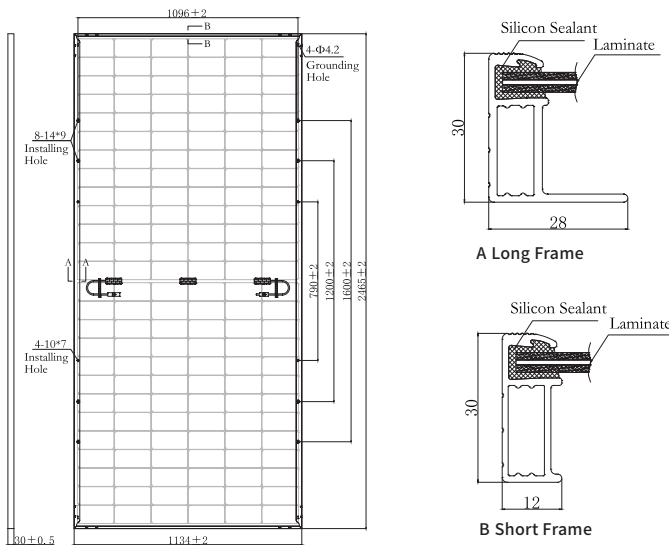
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



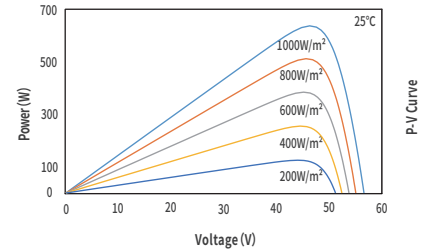
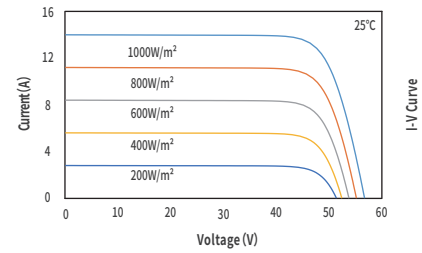
### Leading product and power warranty

**-1.00%** 1st-year Degradation **-0.40%** Annual Degradation **15** Years materials and workmanship warranty **30** Years linear power warranty

## Engineering Drawing (mm)



## Characteristic Curves(635W)



## Electrical Parameters (STC \*)

| Nominal Max. Power(Pmax/W)   | 620   | 625   | 630   | 635   | 640   | 645   |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage(Voc/V)  | 55.60 | 55.74 | 55.88 | 56.01 | 56.18 | 56.36 |
| Short Circuit Current(Isc/A) | 14.19 | 14.27 | 14.35 | 14.42 | 14.48 | 14.53 |
| Operating Voltage(Vmp/V)     | 45.93 | 46.09 | 46.26 | 46.42 | 46.59 | 46.78 |
| Operating Current(Imp/A)     | 13.50 | 13.56 | 13.62 | 13.68 | 13.74 | 13.79 |
| Efficiency(%)                | 22.2  | 22.4  | 22.5  | 22.7  | 22.9  | 23.1  |

STC \*: Irradiance = 1000 W/m<sup>2</sup>, Cell Temperature = 25°C, AM = 1.5  
Test condition is based on the front side

## Mechanical Parameters

|                 |   |
|-----------------|---|
| Cell Type       | N Type  |
| Module Size     | 2465 × 1134 × 30mm  |
| Glass Thickness | 2.0mm + 2.0mm   |
| Module Weight   | 34.3Kg  |
| Output Cable    | 4mm <sup>2</sup> , cable length +400mm/-200mm (can be customized) |
| Connector       | PV-DA01M2-XY (or customized)                                      |
| Junction Box    | IP68, 3 bypass diodes   |
| Frame           | Anodized aluminium alloy  |

## Electrical Parameters (NMOT \*)

| Nominal Max. Power(Pmax/W)   | 471   | 475   | 478   | 482   | 486   | 490   |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage(Voc/V)  | 53.24 | 53.37 | 53.51 | 53.63 | 53.79 | 53.96 |
| Short Circuit Current(Isc/A) | 11.44 | 11.50 | 11.57 | 11.62 | 11.67 | 11.71 |
| Operating Voltage(Vmp/V)     | 43.25 | 43.41 | 43.56 | 43.72 | 43.87 | 44.05 |
| Operating Current(Imp/A)     | 10.88 | 10.93 | 10.98 | 11.03 | 11.08 | 11.12 |

NMOT \*: Irradiance = 800 W/m<sup>2</sup>, Ambient Temperature = 20°C, AM = 1.5,  
Wind Speed = 1 m/s  
Test condition is based on the front side

## Temperature Coefficients

|                            |            |
|----------------------------|------------|
| Short Circuit Current(Isc) | +0.045%/°C |
| Open Circuit Voltage(Voc)  | -0.250%/°C |
| Nominal Max. Power(Pmax)   | -0.300%/°C |
| NMOT                       | 42 ± 2°C   |

## Backside Power Gain (For 635W)

| Power Gain                   | 10%   | 15%   | 20%   | 25%   | 30%   |
|------------------------------|-------|-------|-------|-------|-------|
| Nominal Max. Power(Pmax/W)   | 698.5 | 730.3 | 762.0 | 793.8 | 825.5 |
| Open Circuit Voltage(Voc/V)  | 56.01 | 56.01 | 56.11 | 56.11 | 56.11 |
| Short Circuit Current(Isc/A) | 15.86 | 16.58 | 17.30 | 18.03 | 18.75 |
| Operating Voltage(Vmp/V)     | 46.42 | 46.42 | 46.52 | 46.52 | 46.52 |
| Operating Current(Imp/A)     | 15.05 | 15.73 | 16.38 | 17.06 | 17.75 |

## Operating Parameters

|                         |                                     |
|-------------------------|-------------------------------------|
| Max. System Voltage     | DC1500V                             |
| Power Tolerance         | 0 ~ +5 W                            |
| Operating Temperature   | -40°C ~ +85°C                       |
| Max. Fuse Rated Current | 30A                                 |
| Static Load             | Front 5400Pa, Back 2400Pa           |
| Packing Data            | 36 pcs/Pallet; 144(20GP); 576(40HQ) |