

## Monofacial Double Glass Module (Black Frame)

DAS-DH96NE.A

# 435W~460W



## Key Features



### High Efficiency

Leading module efficiency in industry, up to 23.0%



### Excellent Appearance and Performance

symmetrical design, low risk of micro-crack



### High Reliability

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



### Low NMOT

As low as 42°C, improving the power generation efficiency



### 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

## 460W

Maximum  
Module Efficiency

## 23.0%

Power Output  
Tolerance

## 0~+5W

## Product and Quality Certifications

IEC 61215, IEC 61730

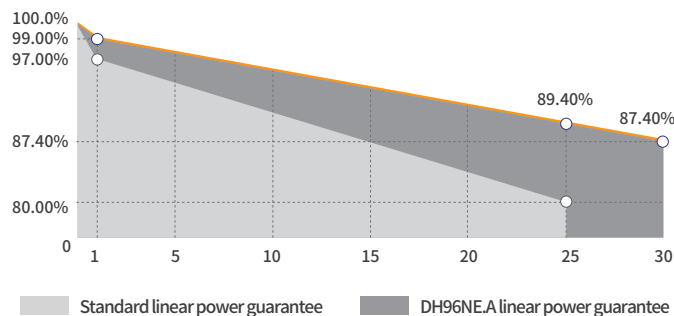
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

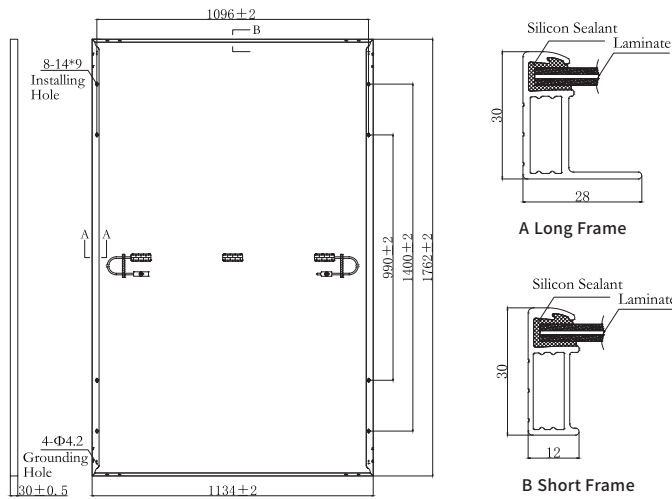
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



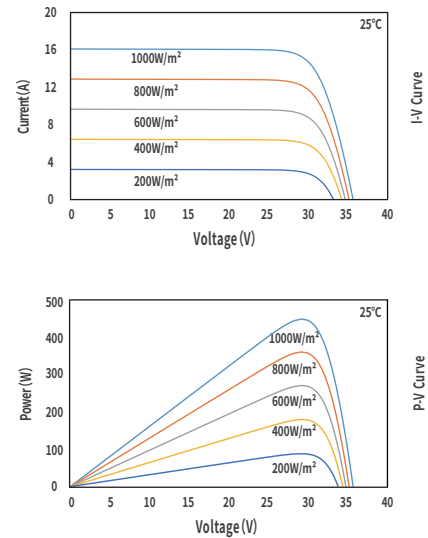
## Leading product and power warranty

-1.00% 1st-year Degradation -0.40% Annual Degradation 15 Materials and workmanship warranty 30 Linear power warranty

## Engineering Drawing (mm)



## Characteristic Curves(450W)



## Electrical Parameters (STC \*)

| Nominal Max. Power(Pmax/W)   | 435   | 440   | 445   | 450   | 455   | 460   |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage(Voc/V)  | 34.72 | 34.92 | 35.11 | 35.30 | 35.50 | 35.68 |
| Short Circuit Current(Isc/A) | 15.86 | 15.94 | 16.01 | 16.08 | 16.16 | 16.22 |
| Operating Voltage(Vmp/V)     | 29.48 | 29.65 | 29.83 | 30.02 | 30.22 | 30.41 |
| Operating Current(Imp/A)     | 14.76 | 14.84 | 14.92 | 14.99 | 15.06 | 15.13 |
| Efficiency(%)                | 21.8  | 22.0  | 22.3  | 22.5  | 22.8  | 23.0  |

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     | 1762×1134×30mm                                             |
| Glass Thickness | 1.6mm + 1.6mm                                              |
| Module Weight   | 21.6Kg                                                     |
| Output Cable    | 4mm <sup>2</sup> , cable length 1200mm (can be customized) |
| Connector       | Original MC4 Series                                        |
| Junction Box    | IP68, 3 bypass diodes                                      |
| Frame           | Anodized aluminium alloy (Black)                           |

## Electrical Parameters (NMOT \*)

| Nominal Max. Power(Pmax/W)   | 331   | 335   | 339   | 343   | 347   | 350   |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Open Circuit Voltage(Voc/V)  | 33.24 | 33.44 | 33.62 | 33.80 | 33.99 | 34.16 |
| Short Circuit Current(Isc/A) | 12.79 | 12.85 | 12.91 | 12.96 | 13.03 | 13.08 |
| Operating Voltage(Vmp/V)     | 27.86 | 28.02 | 28.19 | 28.37 | 28.56 | 28.74 |
| Operating Current(Imp/A)     | 11.90 | 11.96 | 12.03 | 12.08 | 12.14 | 12.20 |

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

## 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 |

## Temperature Coefficients

|                            |            |
|----------------------------|------------|
| Short Circuit Current(Isc) | +0.045%/°C |
| Open Circuit Voltage(Voc)  | -0.25%/°C  |
| Nominal Max. Power(Pmax)   | -0.280%/°C |
| NMOT                       | 42±2°C     |

## Packing Data

|                  |       |       |
|------------------|-------|-------|
| Packing Type     | 20'GP | 40'HQ |
| Piece/Pallet     | 37    | 37    |
| Pallet/Container | 6     | 26    |
| Piece/Container  | 222   | 962   |