

## Bifacial Double Glass Module (Black Frame)

DAS-DH108ND

# 440W~465W



### Key Features



#### High Efficiency

Leading module efficiency in industry, up to 22.8%



#### Excellent Appearance and Performance

Bifacial solar cell, symmetrical design, low risk of micro-crack



#### High Reliability

25 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

**465W**

Maximum Module Efficiency

**22.8%**

Power Output Tolerance

**0~+5W**

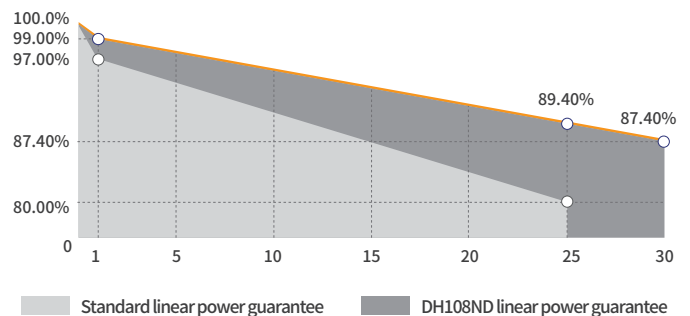
### Product and Quality Certifications

IEC 61215, IEC 61730

ISO 9001: Quality Management System

ISO 14001: Environment Management System

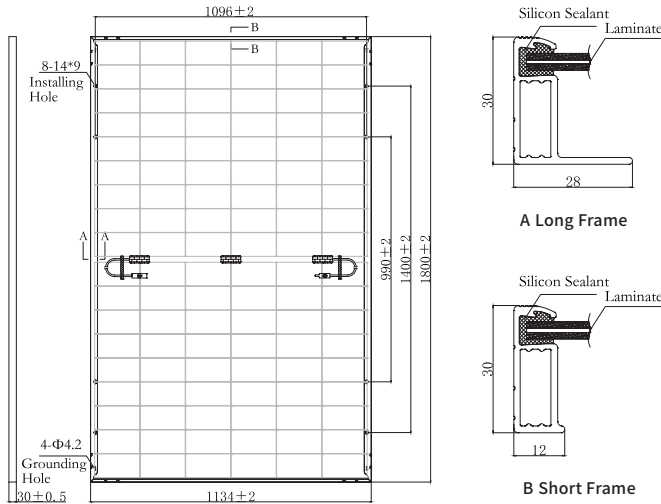
ISO 45001: Occupational Health and Safety Management System



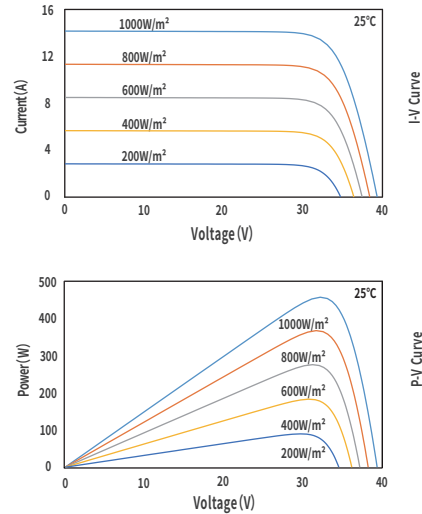
### Leading Product and Power Warranty

**-1.00%** 1st-year Degradation **-0.40%** Annual Degradation **25** Years materials and workmanship warranty **30** Years linear power warranty

## Engineering Drawing (MM)



## Characteristic Curves(455W)



## Electrical Parameters (STC \*)

Nominal Max. Power(Pmax/W)	440	445	450	455	460	465
Open Circuit Voltage(Voc/V)	38.82	39.00	39.18	39.36	39.54	39.72
Short Circuit Current(Isc/A)	14.58	14.63	14.68	14.73	14.79	14.85
Operating Voltage(Vmp/V)	32.10	32.28	32.47	32.65	32.84	33.03
Operating Current(Imp/A)	13.71	13.79	13.86	13.94	14.01	14.08
Efficiency(%)	21.6	21.8	22.0	22.3	22.5	22.8

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	1800×1134×30mm
Glass Thickness	1.6mm
Module Weight	21.7Kg
Output Cable	4mm <sup>2</sup> , cable length 1200mm(can be customized)
Connector	See note
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

Connector\*: 1.PV-DA01M2-XY 2.PV-ZH202B 3.PV-KST4-EVO2/xy\_UR,PV-KBT4-EVO2/xy\_UR  
4.PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy  
5.PV-JK03M2/xy (Plug+Socket);PV-JK03M2/xy (Plug+Socket)

## Electrical Parameters (NMOT \*)

Nominal Max. Power(Pmax/W)	335	339	343	347	350	354
Open Circuit Voltage(Voc/V)	37.17	37.34	37.51	37.69	37.86	38.03
Short Circuit Current(Isc/A)	11.75	11.79	11.83	11.87	11.92	11.97
Operating Voltage(Vmp/V)	30.33	30.50	30.69	30.85	31.03	31.21
Operating Current(Imp/A)	11.05	11.12	11.17	11.24	11.29	11.35

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)	-0.280%/°C
NMOT	42±2°C

## Electrical Parameters (BNPI \*)

Nominal Max. Power(Pmax/W)	485	490	495	500	505	510
Open Circuit Voltage(Voc/V)	38.82	39.00	39.18	39.36	39.54	39.72
Short Circuit Current(Isc/A)	16.13	16.18	16.24	16.29	16.36	16.42
Operating Voltage(Vmp/V)	32.10	32.28	32.47	32.65	32.84	33.03
Operating Current(Imp/A)	15.17	15.26	15.34	15.42	15.50	15.58

BNPI \*: front irradiance=1000W/m<sup>2</sup>, rear irradiance=135W/m<sup>2</sup>,  
Cell Temperature = 25°C, AM = 1.5  
Pmax bifaciality coefficient 80±5%, Voc bifaciality coefficient 95±5%  
Isc bifaciality coefficient 80±5%

## Operating Parameters

Max. System Voltage	DC1500V
Power Measurement Tolerance	±3%
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	30A
Fire Safety Class	Class C
Static Load	Front 5400Pa, Back 2400Pa
Packing Data	36 pcs/Pallet; 216(20GP); 936(40HQ)