

Bifacial Double Glass Module  
(Black Frame)  
Made In China  
DAS-DH108ND

**440W~460W**



## Key Features



### High Efficiency

Leading module efficiency in industry, up to 22.5%



### 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

**460W**

Maximum Module Efficiency

**22.3%**

Power Output Tolerance

**0~+5W**

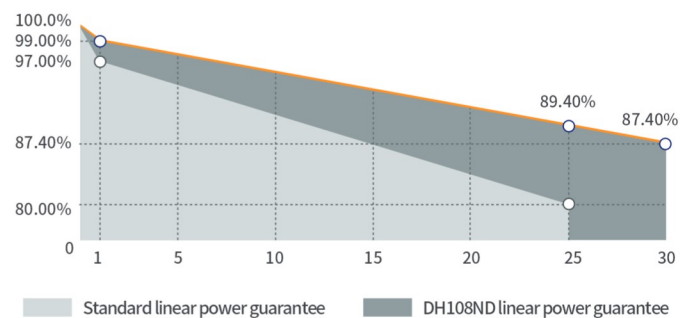
## Product and Quality Certifications

IEC 61215, IEC 61730

ISO 9001: Quality Management System

ISO 14001: Environment Management System

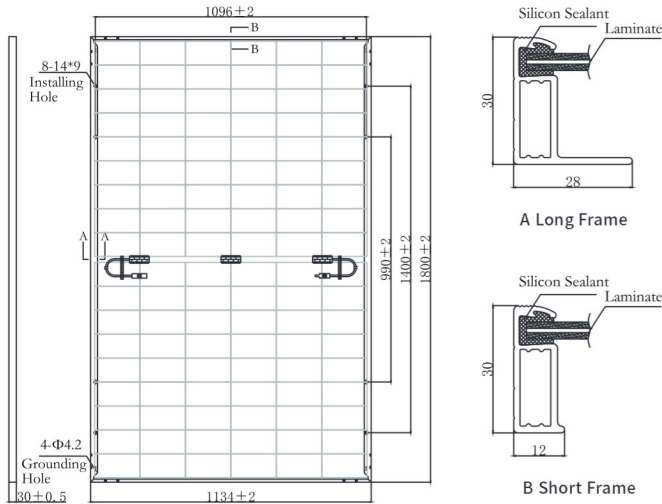
ISO 45001: Occupational Health and Safety Management System



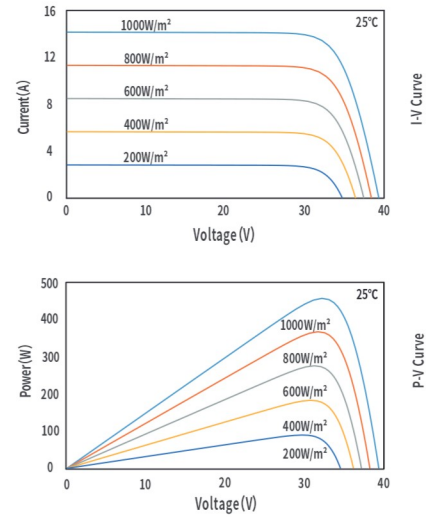
## Leading Product and Power Warranty

**-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
Open Circuit Voltage(Voc/V)	38.82	39.00	39.18	39.36	39.54
Short Circuit Current(Isc/A)	14.58	14.63	14.68	14.73	14.79
Operating Voltage(Vmp/V)	32.10	32.28	32.47	32.65	32.84
Operating Current(Imp/A)	13.71	13.79	13.86	13.94	14.01
Efficiency(%)	21.6	21.8	22.0	22.3	22.5

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
Connector	See note
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

Connector\*: 1.QC4.10-cd,2.PV-KST4-EVO2/xy\_UR (male),PV-KBT4-EVO2/xy\_UR(female)  
3.PV-ZH202B,4.YC4,5.QC4.10-cds,6.PV-TT02,7.PV-JK03M2/xy(Plug+Socket)  
8.PV2e,9.PV-DA01M2-XY,10.UTXC Fabcde/ UTXCMabcde,  
11.PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy.

## Electrical Parameters (NMOT \*)

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

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

Fire Safety Class: Class C

## Backside Power Gain (For 455W)

Power Gain	10%	15%	20%	25%	30%
Nominal Max. Power(Pmax/W)	501	523	546	569	592
Open Circuit Voltage(Voc/V)	39.36	39.36	39.46	39.46	39.46
Short Circuit Current(Isc/A)	16.20	16.94	17.68	18.41	19.15
Operating Voltage(Vmp/V)	32.65	32.65	32.75	32.75	32.75
Operating Current(Imp/A)	15.33	16.03	16.67	17.37	18.06

## Operating Parameters

Max. System Voltage	DC1500V
Power Measurement Tolerance	±3%
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	30A
Designed Mechanical Load	Positive 3600Pa, Negative 1600Pa
Packing Data	36 pcs/Pallet; 216(20GP); 936(40HQ)