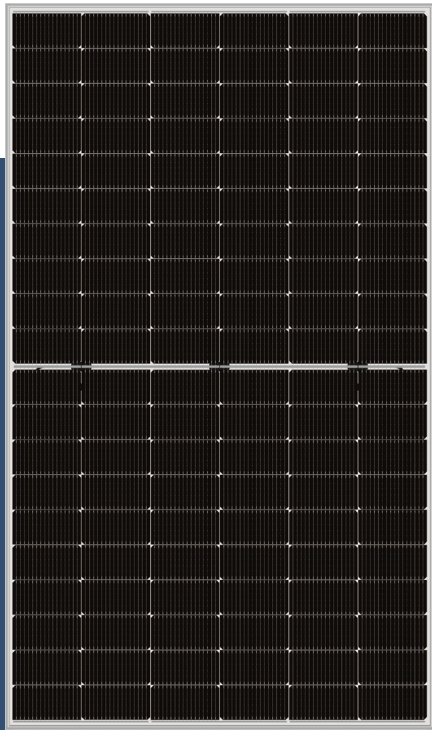


N Type P Type

Bifacial Double Glass Module
Made In China
DAS-DH120NA

465W~490W



Key Features



High Efficiency

Leading module efficiency in industry, up to 22.7%



Excellent Appearance and Performance

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



High Reliability

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

490W

Maximum
Module Efficiency

22.7%

Power Output
Tolerance

0~+5W

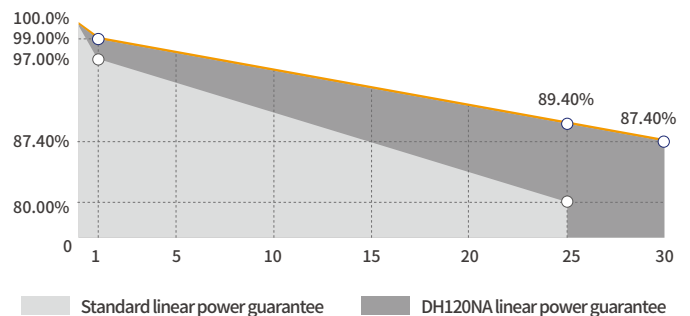
Product and Quality Certifications

IEC 61215, IEC 61730

ISO 9001: Quality Management System

ISO 14001: Environment Management System

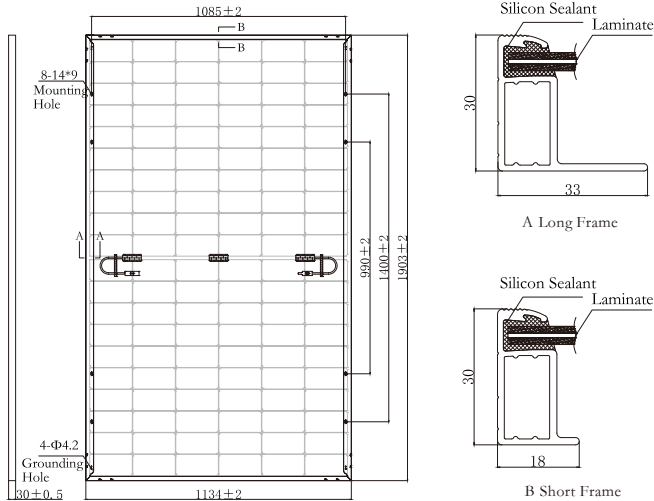
ISO 45001: Occupational Health and Safety Management System



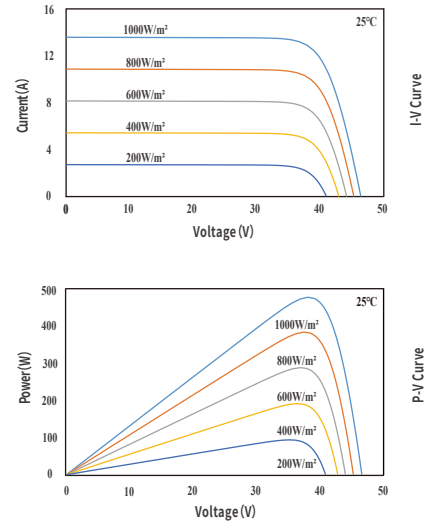
Leading product and power warranty

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

Engineering Drawing (mm)



Characteristic Curves(480W)



Electrical Parameters (STC *)

Nominal Max. Power(Pmax/W)	465	470	475	480	485	490
Open Circuit Voltage(Voc/V)	42.75	42.83	42.88	42.99	43.18	43.39
Short Circuit Current(Isc/A)	13.78	13.79	13.80	13.90	13.95	14.01
Operating Voltage(Vmp/V)	35.45	35.77	36.10	36.42	36.75	37.04
Operating Current(Imp/A)	13.12	13.14	13.16	13.18	13.20	13.23
Efficiency(%)	21.5	21.8	22.0	22.2	22.5	22.7

STC *: Irradiance = 1000 W/m², Cell Temperature = 25°C, AM = 1.5
Test condition is based on the front side

Mechanical Parameters

Cell Type	N Type
Module Size	1903×1134×30mm
Glass Thickness	2.0mm
Module Weight	26Kg
Output Cable	4mm², cable length 300mm (can be customized)
Connector	MC4 compatible
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

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.UTXCFabcde/ UTXCMabcde,
11.PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy.

Electrical Parameters (NMOT *)

Nominal Max. Power(Pmax/W)	351.0	354.0	357.0	360.0	364.0	368.0
Open Circuit Voltage(Voc/V)	40.43	40.48	40.54	40.57	40.75	40.94
Short Circuit Current(Isc/A)	11.11	11.11	11.12	10.86	10.89	10.93
Operating Voltage(Vmp/V)	33.37	33.59	33.81	34.03	34.34	34.53
Operating Current(Imp/A)	10.52	10.54	10.56	10.58	10.60	10.62

NMOT *: Irradiance = 800 W/m², 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

Fire Safety Class:: Class C

Backside Power Gain (For 480W)

Power Gain	10%	15%	20%	25%	30%
Nominal Max. Power(Pmax/W)	528.0	552.0	576.0	600.0	624.0
Open Circuit Voltage(Voc/V)	42.99	42.99	43.09	43.09	43.09
Short Circuit Current(Isc/A)	15.29	15.99	16.68	17.38	18.07
Operating Voltage(Vmp/V)	36.42	36.42	36.52	36.52	36.52
Operating Current(Imp/A)	14.50	15.16	15.77	16.43	17.09

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); 864(40HQ)

