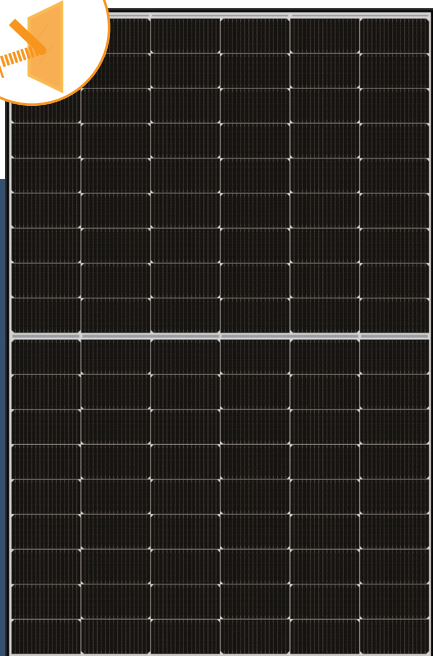


Bifacial Double Glass Module (Black Frame, Anti-glare)

DAS-DH108NA

420W~440W



Key Features



High Efficiency

Leading module efficiency in industry, up to 22.5%



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



Anti-glare Design

Excellent anti-glare performance, suitable for scenes with anti-glare requirements, such as school, highway, airport, scenic spot, etc.

-Light transmission $\geq 93\%$

-For incident angle $\leq 40^\circ$, light reflection $< 20,000 \text{ cd/m}^2$

Maximum
Power Output

440W

Maximum
Module Efficiency

22.5%

Power Output
Tolerance

0~+5W

Product and Quality Certifications

IEC 61215, IEC 61730

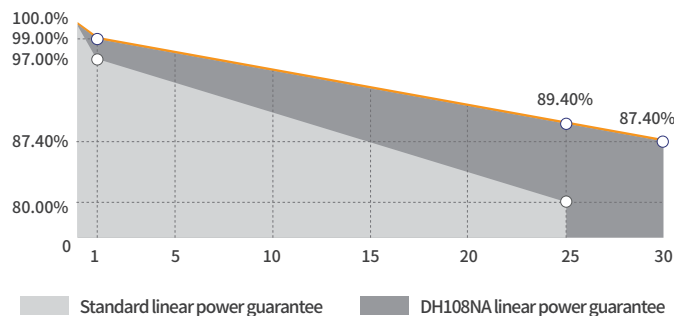
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

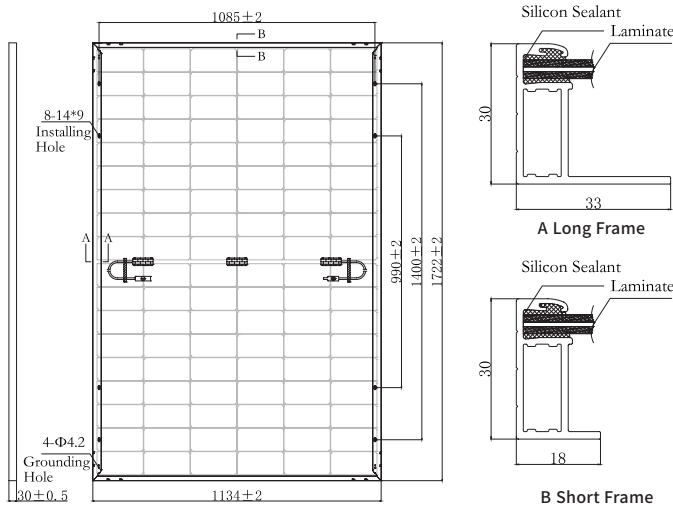
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



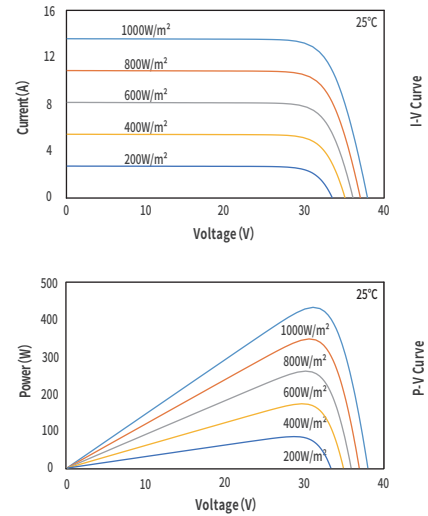
Leading product and power warranty

-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(430W)



Electrical Parameters (STC *)

Nominal Max. Power(Pmax/W)	420	425	430	435	440
Open Circuit Voltage(Voc/V)	38.48	38.54	38.60	38.72	38.88
Short Circuit Current(Isc/A)	13.78	13.79	13.80	13.89	13.98
Operating Voltage(Vmp/V)	32.02	32.35	32.68	33.01	33.26
Operating Current(Imp/A)	13.12	13.14	13.16	13.18	13.23
Efficiency(%)	21.5	21.8	22.0	22.3	22.5

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	1722×1134×30mm
Glass Thickness	2.0mm
Module Weight	23.7Kg
Output Cable	4mm ² , cable length 1200mm (can be customized)
Connector	MC4
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

Electrical Parameters (NMOT *)

Nominal Max. Power(Pmax/W)	316.0	319.0	322.0	325.0	329.0
Open Circuit Voltage(Voc/V)	36.40	36.46	36.52	36.82	36.69
Short Circuit Current(Isc/A)	11.11	11.11	11.12	11.20	11.27
Operating Voltage(Vmp/V)	30.05	30.28	30.51	30.83	31.04
Operating Current(Imp/A)	10.52	10.54	10.56	10.58	10.60

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

Backside Power Gain (For 430W)

Power Gain	10%	15%	20%	25%	30%
Nominal Max. Power(Pmax/W)	473.0	494.5	516.0	537.5	559.0
Open Circuit Voltage(Voc/V)	38.60	38.60	38.70	38.70	38.70
Short Circuit Current(Isc/A)	15.18	15.87	16.56	17.25	17.94
Operating Voltage(Vmp/V)	32.68	32.68	32.78	32.78	32.78
Operating Current(Imp/A)	14.47	15.13	15.74	16.40	17.05

Operating Parameters

Max. System Voltage	DC1500V
Power Tolerance	0 ~ +5 W
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	30A
Front Static Load	Snow load 5400Pa, Wind load 2400Pa
Packing Data	36 pcs/Pallet; 216(20GP); 936(40HQ)