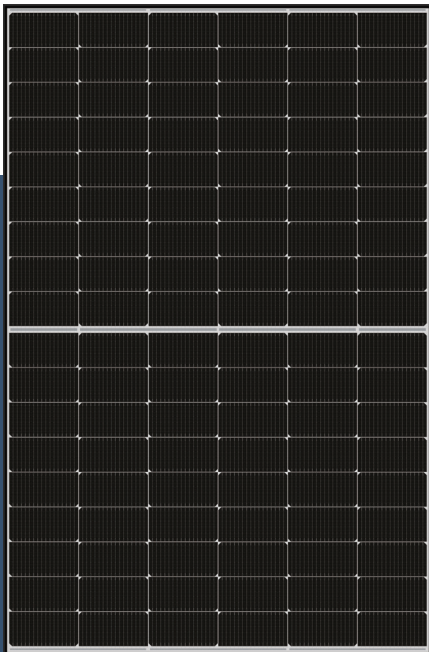


P Type
Monofacial Module(Black Frame)
DAS-WH108PA

400W~420W



Key Features



High Efficiency

Leading module efficiency in industry, up to 21.5%



Half Cell, SMBB Technology

Series-then-parallel cell connection design, more reliable soldering technology



High Reliability

Passed 3*IEC standard test



Low NMOT

As low as 43°C, improving the power generation efficiency



Reduce Mismatch Loss

Half-cut cell technology provides optimized energy production under inter-row shading conditions



Superior Low Irradiance Performance

Excellent low irradiance performance, increase power generation in low-light conditions like mornings, evenings and cloudy days

Maximum Power Output

420W

Maximum Module Efficiency

21.5%

Power Output Tolerance

0~+5W

Product and Quality Certifications

IEC 61215, IEC 61730

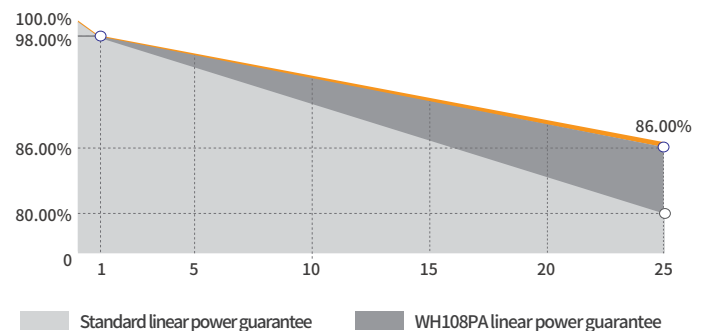
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

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

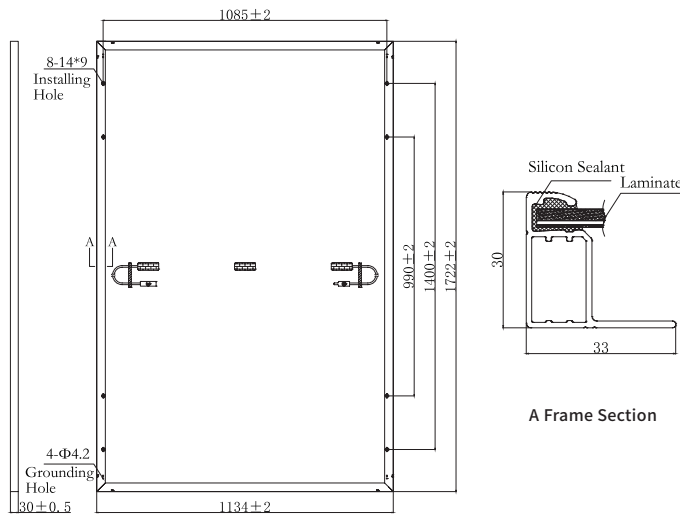
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



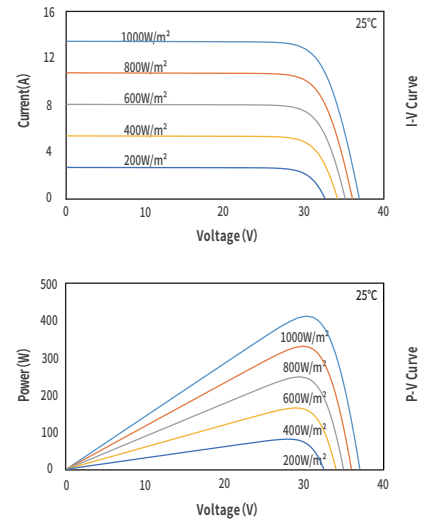
Leading product and power warranty

-2.00% 1st-year Degradation -0.50% Annual Degradation 12 Years materials and workmanship warranty 25 Years linear power warranty

Engineering Drawing (mm)



Characteristic Curves(410W)



Electrical Parameters (STC *)

Nominal Max. Power(Pmax/W)	400	405	410	415	420
Open Circuit Voltage(Voc/V)	37.21	37.38	37.55	37.71	37.87
Short Circuit Current(Isc/A)	13.67	13.76	13.85	13.94	14.03
Operating Voltage(Vmp/V)	31.18	31.35	31.52	31.68	31.84
Operating Current(Imp/A)	12.83	12.92	13.01	13.10	13.20
Efficiency(%)	20.5	20.7	21.0	21.3	21.5

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

Electrical Parameters (NMOT *)

Nominal Max. Power(Pmax/W)	294.0	297.7	301.4	305.0	308.7
Open Circuit Voltage(Voc/V)	34.42	34.58	34.73	34.88	35.03
Short Circuit Current(Isc/A)	11.02	11.09	11.16	11.24	11.31
Operating Voltage(Vmp/V)	28.65	28.79	28.95	29.10	29.23
Operating Current(Imp/A)	10.26	10.34	10.41	10.48	10.56

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)	+0.048%/°C
Open Circuit Voltage(Voc)	-0.26%/°C
Nominal Max. Power(Pmax)	-0.340%/°C
NMOT	43±2°C

Mechanical Parameters

Cell Type	P Type
Module Size	1722×1134×30mm
Glass Thickness	3.2mm
Module Weight	21.5Kg
Output Cable	4mm ² , cable length 1200mm (can be customized)
Connector	MC4
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy (Black)

Operating Parameters

Max. System Voltage	DC1500V
Power Tolerance	0 ~ +5 W
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rated Current	25A
Front Static Load	Snow load 5400Pa, Wind load 2400Pa

Packing Data

Packing Type	20'GP	40'HQ
Piece/Pallet	36	36
Pallet/Container	6	26
Piece/Container	216	936