

Monocrystalline Bifacial Double Glass Half Cell PV Module

ZP5MxxxH60(DH)-DGB

Power Output	Power Tolerance	Maximum Efficiency
575-610W	0~+5W	21.6%



Assembled with multi-busbar cells, reduce shading effect on the energy generation, lower risk of hot spot



Pass the test for weather resistance in harsh environments (salt mist, ammonia corrosion and sand)



Process optimization of high efficiency PERC solar cell and strict control on raw materials to ensure highly resistance against PID of PV module



Better mechanical loading tolerance with the test front side 5400pa and back side 2400pa.



Series and parallel design, reduce the series resistance RS of module, reduce the loss of internal electrical performance, and improve the power generation capacity of whole system.

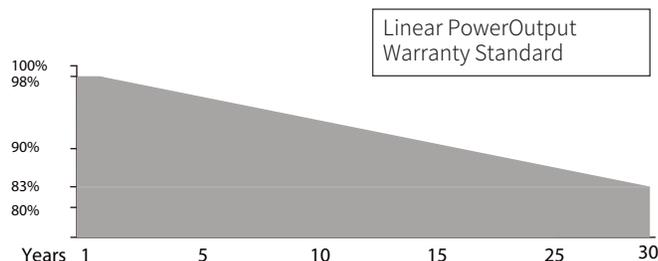


Additional safety Fire class Acertified



Offers Long-term Quality Assurance

- 12 years Product Warranty
- 30 years Linear Power Output Warranty
- The attenuation of the power output in the first year $\leq 2\%$, the annual average attenuation after the first year $\leq 0.45\%$



* More details please read the guarantee letter.

Product Certification & Management Certification

- IEC61215/IEC61730/IEC61701/IEC62716
- ISO 9001:Quality Management System
- ISO 14001:Environment Management System
- ISO 45001:Occupation Health Safety Management System



ZP5MxxxH60(DH)-DGB

Electrical performance parameters (STC)

Power Output	Pmax(W)	575	580	585	590	595	600	605	610
Rated Power Maximum Voltage	Vmp(V)	33.55	33.75	33.95	34.15	34.35	34.55	34.75	34.95
Rated Power Maximum Current	Imp(A)	17.14	17.19	17.23	17.28	17.32	17.37	17.41	17.46
Open Circuit Voltage	Voc(V)	40.64	40.84	41.04	41.24	41.44	41.64	41.84	42.04
Short Circuit Current	Isc(A)	18.20	18.25	18.30	18.36	18.41	18.46	18.52	18.57
Module Efficiency	(%)	20.3	20.5	20.7	20.8	21.0	21.2	21.4	21.6
Power Tolerance	(W)	0~+5W							

* STC : 1000W/m2 irradiance, 25°C module temperature, AM1.5 spectrum.

Electrical characteristics with different rear side power gain (595W)

Double side power gain	Power output - Pmax(W)	Open Circuit Voltage - Voc(V)	Short Circuit Current - Isc(A)	Rated Power Maximum Voltage - Vmp(V)	Rated Power Maximum Current - Imp(A)
10%	653	41.4	20.25	34.3	19.05
15%	683	41.4	21.17	34.3	19.91
20%	712	41.4	22.09	34.3	20.78
25%	742	41.4	23.07	34.3	21.65

* Rear side power gain : The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure , height , tilt angle etc.) and albedo of the ground.

Electrical performance parameters (NMOT)

Power output	Pmax (W)	435.0	438.8	442.6	446.4	450.2	454.0	457.7	461.5
Rated Power Maximum Voltage	Vmp (V)	31.30	31.48	31.67	31.86	32.05	32.23	32.42	32.60
Rated Power Maximum Current	Imp (A)	13.90	13.94	13.97	14.01	14.05	14.09	14.12	14.16
Open Circuit Voltage	Voc (V)	38.28	38.47	38.66	38.84	39.03	39.22	39.41	39.60
Short Circuit Current	Isc (A)	14.67	14.71	14.76	14.80	14.84	14.88	14.93	14.97

* NMOT:800W/m2 irradiance, 20°C module temperature, 1m/s wind speed.

Structure Features

Solar Cell	210MONO(Half Cell)
Solar Cell Array	120 pcs(6x20)
Module Dimension	2172×1303×35mm
Weight	34.8 kg
Glass	2.0 mm highly transparent anti-reflection coating tempered glass
Back sheet	2.0 mm highly transparent tempered glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm ² L=300 mm、PV cable
Diode Quantity	3
Wind Pressure	2400pa
Snow Pressure	5400pa
Connector	MC4 Compatible

* More details please read the installation manual.

PACKAGING

Number of modules per pallet	31 pcs
17.5*2.8m Flatbed loading	775 pcs
13.0*2.35m Flatbed loading	527 pcs
40HQ Standard container	527 pcs

Temperature Characteristics

Solar Cells Rated Working Temperature	44±2°C
Temperature Coefficient(Isc)	+0.07%/°C
Temperature Coefficient(Voc)	-0.36%/°C
Temperature Coefficient(Pmax)	-0.38%/°C

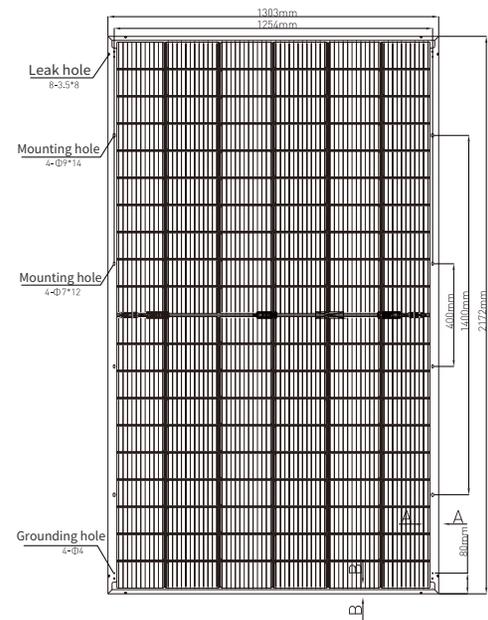
Maximum Ratings

Working Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Maximum Fuse Rated Current	35A

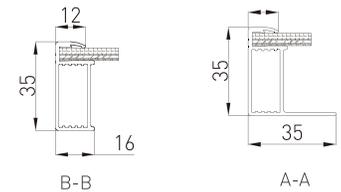
Optional

Connector	<input type="checkbox"/> Original MC4
Cable length	<input type="checkbox"/> 1000mm <input type="checkbox"/> 900mm
Frame	<input type="checkbox"/> Black
Solar Module Dimension	<input type="checkbox"/> 2166x1297x6mm
Glass type	<input type="checkbox"/> Glazed <input type="checkbox"/> Transparency

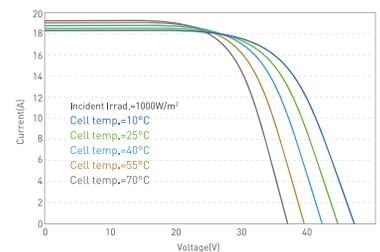
Module Dimension



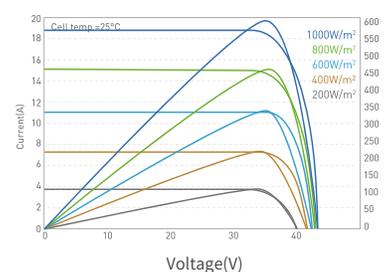
Back View



I-V curves of module under different temperature(595w)



I-V curves/P-V curves of module under different irradiation(595w)



Power measurement error +/-3%