

WP-HD120N

N-type Bifacial High Efficiency Mono Silicon Half-Cell Double Glass Module

375-400W



400W

Maximum Power Output

21.57%

Maximum Module Efficiency

0~+5W

Power Output Guarantee



Additional Power Generation Gain

At least 30-year product life, more than 10%- 30% additional power gain comparing with conventional module



ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally, can increase power generation



Lower LCOE

High power and 1500V system voltage, saving BOS cost



Better Weak Illumination Response

Wide spectral response, higher power output even under low-light settings like smog or cloudy days



Better Temperature Coefficient

Higher power generation under working conditions, thanks to passivating contact cell technology



Wider Applicability

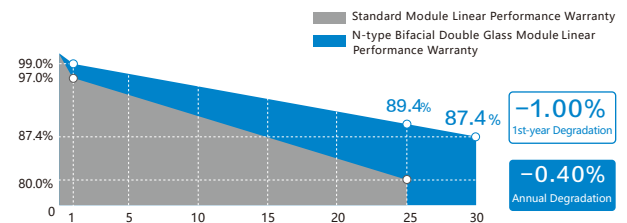
BIPV, vertical installation, snowfield, high-humid area, windy and dusty area

WattPower Delivers Reliable Performance Over Time

- Leader of n-type bifacial technology
- Fully automatic facility and world-class technology
- Long term reliability tests
- 100% EL inspection ensuring defect-free modules

Additional Insurance Backed by Munich Re

Linear Performance Warranty



12 Years Product Material & Workmanship 30 Years Linear Performance Warranty

WP-HD120N Series

N-type Bifacial High Efficiency Mono Silicon Half-Cell Double Glass Module

Electrical Properties | STC*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (Pmax) (W)	375	380	385	390	395	400
MPP Voltage (Vmp) (V)	34.7	34.9	35.1	35.3	35.5	35.7
MPP Current (Imp) (A)	10.81	10.89	10.97	11.05	11.13	11.21
Open Circuit Voltage (Voc) (V)	41.6	41.8	42.0	42.2	42.4	42.6
Short Circuit Current (Isc) (A)	11.45	11.54	11.62	11.69	11.77	11.85
Module Efficiency (%)	20.22	20.49	20.76	21.03	21.30	21.57

*STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM1.5
The data above is for reference only and the actual data is in accordance with the practical testing

Electrical Properties | NOCT*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (Pmax) (W)	284	287	291	295	299	303
MPP Voltage (Vmp) (V)	32.5	32.7	32.9	33.1	33.3	33.5
MPP Current (Imp) (A)	8.72	8.78	8.84	8.91	8.97	9.04
Open Circuit Voltage (Voc) (V)	39.8	40.0	40.1	40.3	40.5	40.7
Short Circuit Current (Isc) (A)	9.23	9.30	9.37	9.43	9.49	9.55

*NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s

Operating Properties

Operating Temperature (°C)	-40°C~+85°C
Maximum System Voltage (V)	1500V (IEC)
Maximum Series Fuse Rating(A)	25
Power Tolerance	0~+5W
Bifaciality*	80%

*Bifaciality=Pmaxrear (STC) /Pmaxfront (STC) , Bifaciality tolerance:±5%

Temperature Coefficient

Temperature Coefficient of Pmax*	-0.320%/°C
Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Isc	+0.046%/°C
Nominal Operating Cell Temperature (NOCT)	42±2°C

*Temperature Coefficient of Pmax±0.03%/°C

Mechanical Properties

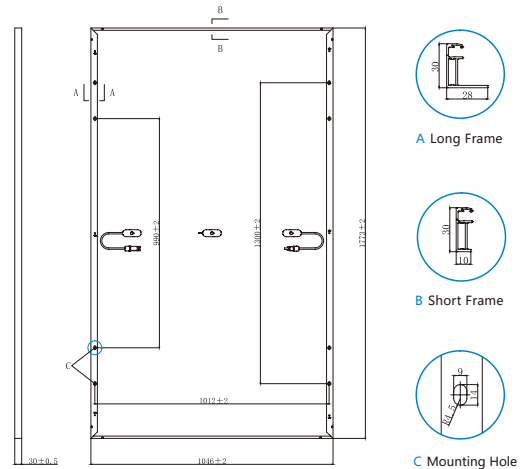
Cell Type	166.00mm*83.00mm
Number of Cells	120pcs(12*10)
Dimension	1773mm*1046mm*30mm
Weight	24kg
Front /Rear Glass*	2.0mm/2.0mm
Frame	Anodized Aluminium
Junction Box	IP68 (3 diodes)
Length of Cable*	4.0mm ² , 300mm
Connector	MC4 Compatible

*Heat strengthened glass
*Cable length can be customized

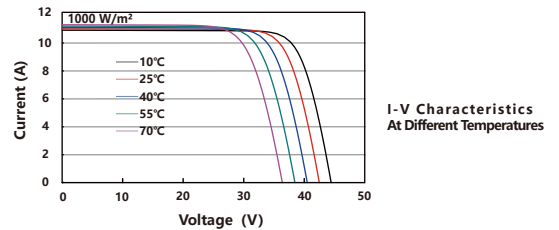
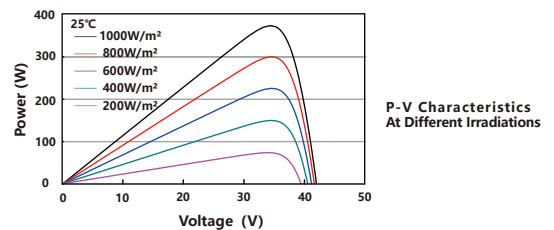
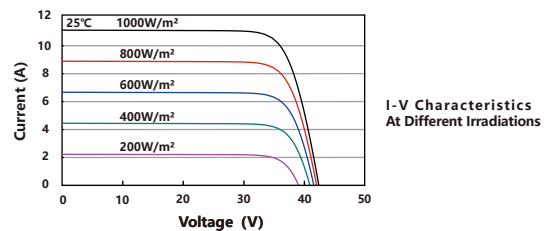
With Different Power Generation Gain (regarding 380W as an example)

Power Gain (%)	Peak Power (Pmax) (W)	MPP Voltage (Vmp) (V)	MPP Current (Imp) (A)	Open Circuit Voltage (Voc) (V)	Short Circuit Current (Isc) (A)
10	410	34.9	11.75	41.8	12.44
15	426	34.9	12.18	41.8	12.89
20	441	35.0	12.61	41.9	13.34
25	456	35.0	13.04	41.9	13.79
30	471	35.0	13.47	41.9	14.24

Engineering Drawing (unit: mm)



Characteristic Curves | HD120N-380



Packaging Configuration

Packing Type	20'GP	40'GP	40'HQ
Piece/Pallet		35	
Pallet/Container	6	12	24
Piece/Container	210	420	840

