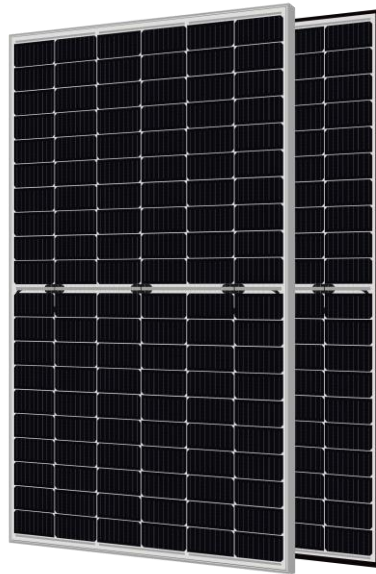


JW-HD120N

N-type
Bifacial Double Glass Mono Module

380W

IEC61215(2016), IEC61730(2016)
ISO9001:2015: Quality Management System
ISO14001:2015: Environment Management System
ISO45001:2018: Occupational health and safety management systems



380W
Maximum Power Output

20.83%
Maximum Module Efficiency

0~+5W
Power Output Tolerance



10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module



ZERO LID (Light Induced Degradation)

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



Lower LCOE

Higher bifaciality, higher power output and lower BOS cost



Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days



Better Temperature Coefficient

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

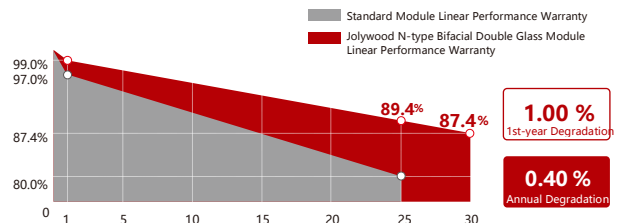


Wider Applicability

More application scenes like BIPV, vertical installation, snowfield, high-humid, windy and dusty area

Jolywood Delivers Reliable Performance Over Time Linear Performance Warranty

- Leader of N-type bifacial manufacturer
- Full-automatic facility and industry-leading technology
- Best-in-class durability and reliability
- BNEF Tier One



12 Years Product Material & Workmanship

30 Years Linear Performance Warranty

Electrical Properties NOCT*

Testing Condition	Front Side
Peak Power (Pmax) (W)	288
MPP Voltage (Vmp) (V)	32.8
MPP Current (Imp) (A)	8.78
Open Circuit Voltage (Voc) (V)	40.0
Short Circuit Current (Isc) (A)	9.30

Electrical Properties STC*

Testing Condition	Front Side
Peak Power (Pmax) (W)	380
MPP Voltage (Vmp) (V)	34.9
MPP Current (Imp) (A)	10.89
Open Circuit Voltage (Voc) (V)	41.8
Short Circuit Current (Isc) (A)	11.54
Module Efficiency (%)	20.83

*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 Power Measurement Tolerance ±3%

*NOCT: Irradiance 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 DC (IEC)
Maximum Series Fuse Rating (A)	25
Power Tolerance	0~+5W
Bifaciality*	80%

*Bifaciality= $\frac{P_{maxrear} (STC) / P_{maxfront} (STC)}{P_{maxfront} (STC)}$, Bifaciality tolerance:±5%

Temperature Coefficient

Temperature Coefficient of Pmax*	-0.310%/°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

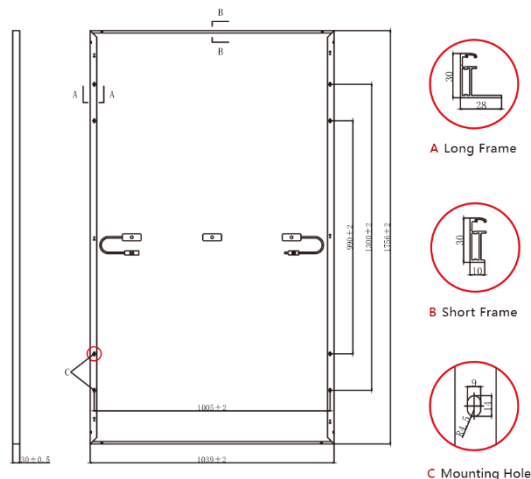
Mechanical Properties

Cell Size	166.00mm*83.00mm
Number of Cells	120pcs(12*10)
Module Dimension	1756mm*1039mm*30mm
Weight	23kg
Front / Rear Glass*	2.0mm/2.0mm
Frame	Anodized Aluminium Alloy
Junction Box	IP68 (3 diodes)
Length of Cable	4.0mm² , +300mm/-180mm (Cable length can be customized)

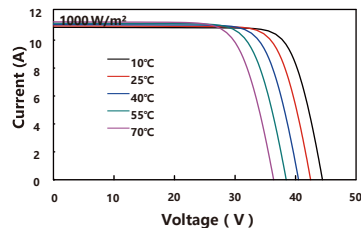
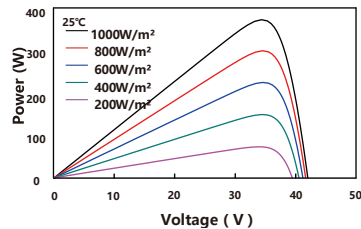
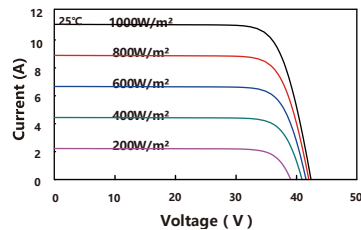
*Heat strengthened glass

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



Characteristic Curves HD120N-380



*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, Jolywood (Taizhou) Solar Technology Co., Ltd. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.