

## **NTOPCon Technology**

# JW-HD120N

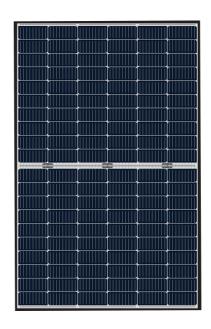
N-type Bifacial High Efficiency Mono Silicon Half-Cell Double Glass Module

370-390W

Cell Type



9BB



## 390W

Maximum Power Output

21.03%

Maximum Module Efficiency

 $0 \sim +5W$ 

**Power Output** Tolerance



#### **Additional Power Generation Gain**

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



#### **Lower LCOE**

High bifaciality, high power output, saving



#### Wider Applicability

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



#### **Better Weak Illumination Response**

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



#### **Better Temperature Coefficient**

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



#### **Jolywood Delivers Reliable Performance Over Time**

- Leader of N-type bifacial technology
- Fully automatic facility and world-class technology
- · Long term reliability tests passed
- 100% EL tests

#### **Additional Insurance Backed by Munich Re**



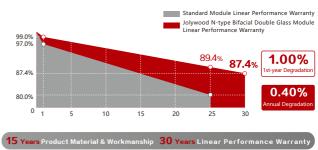








### **Linear Performance Warranty**





Jolywood (Taizhou) Solar Technology Co., Ltd., a subsidiary under Jolywood Group (stock code: SZ300393), is the world leading N-type bifacial solar cells and modules manufacturer. The technology of NTOPCon, NIBC, TBC, etc, and the annual N-type bifacial production capacity reaches 2.1GW cells and 3GW modules. With vision of "Cultivator of Green Energy", Jolywood adheres to the road of advanced and high efficiency solar technology industrialization.

# JW-HD120N Series N-type Bifacial High Efficiency Mono Silicon Half-Cell Double Glass Module

<b>Electrical Properties</b>	STC*				
Testing Condition	Front Side				
Peak Power (Pmax) (W)	370	375	380	385	390
MPP Voltage (Vmp) (V)	34.5	34.7	34.9	35.1	35.3
MPP Current (Imp) (A)	10.73	10.81	10.89	10.97	11.05
Open Circuit Voltage (Voc) (V)	41.4	41.6	41.8	42.0	42.2
Short Circuit Current (Isc) (A)	11.36	11.45	11.54	11.62	11.69
Module Efficiency (%)	19.95	20.22	20.49	20.76	21.03

\*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 pratical testing Power Measurement Tolerance  $\pm 3\%$ 

396

9 1 6

<b>Electrical Properties</b>	NOCT*				
Testing Condition	Front Side				
Peak Power (Pmax) (W)	280	284	287	291	295
MPP Voltage (Vmp) (V)	32.4	32.5	32.7	32.9	33.1
MPP Current (Imp) (A)	8.65	8.72	8.78	8.84	8.91

39.8

9 23

40.0

9 30

40 1

9 37

40 3

9.43

\*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' 75% Fire class \*Bifaciality=Pmaxrear (STC) /Pmaxfront (STC) , Bifaciality tolerance:±5%

#### **Temperature Coefficient**

Open Circuit Voltage (Voc) (V)

Short Circuit Current (Isc) (A)

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	

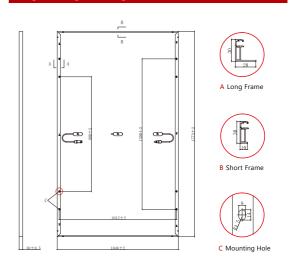
\*Temperature Coefficient of Pmax±0.03%/°C

\*Heat strengthened glass \*Cable length can be customized

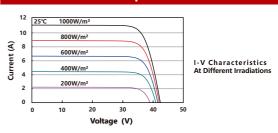
#### **Mechanical Properties** 166.00mm\*83.00mm Cell Type Number of Cells 120pcs(12\*10) 1773mm\*1046mm\*30mm Dimension Weight 23.5kg Front /Rear Glass\* 2.0mm/2.0mm Frame Anodized Aluminium Junction Box IP68 (3 diodes) Length of Cable\* 4.0mm<sup>2</sup>, 300mm QC Solar QC4.10-cd/ Staubli EVO2 Connector

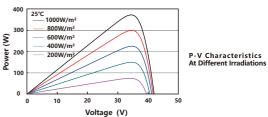
With Different Power Generation Gain			(regarding 380W as an example)			
Power Gain (%)	Peak Power (Pmax) (W)	MPP Voltage (Vmp) (V)	MPP Current (Imp) (A)	Open Circuit Voltage (Voc) (V)	Short Circuit Current (Isc) (A)	
10	410	34.9	11.75	41.8	12.44	
15	426	34.9	12.18	41.8	12.89	
20	441	35.0	12.61	41.9	13.34	
25	456	35.0	13.04	41.9	13.79	
30	471	35.0	13.47	41.9	14.24	

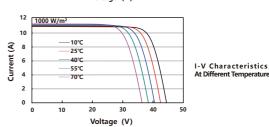
#### **Engineering Drawing (unit: mm)**



#### Characteristic Curves | HD120N-380







Packaging Configuration					
Packing Type	20'GP	40'GP	40'HQ		
Piece/Pallet		36			
Pallet/Container	6	13	26		
Piece/Container	216	468	936		

<sup>\*</sup>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.



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