

### NTOPCon Cell Technology

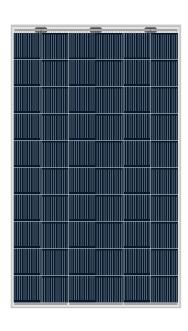
## JW-D72N

N-type Bifacial High Efficiency Mono Silicon Double Glass Module

400-425W

Cell Type





425W

Maximum Power Output

21.42%

Maximum Module Efficiency

 $0 \sim +5W$ 

**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 evenunder 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

#### **Jolywood 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

#### **Linear Performance Warranty**



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













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 manufacture. The technology of company 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-D72N Series | N-type Bifacial High Efficiency Mono Silicon Double Glass Module

<b>Electrical Properties</b>	STC*					
Testing Condition	Front Side					
Peak Power ( Pmax ) (W)	400	405	410	415	420	425
MPP Voltage ( Vmp ) (V)	41.5	41.8	42.1	42.4	42.7	42.9
MPP Current ( Imp ) (A)	9.64	9.69	9.74	9.79	9.84	9.91
Open Circuit Voltage ( Voc ) (V)	49.8	50.1	50.4	50.7	51.0	51.1
Short Circuit Current ( Isc ) (A)	10.14	10.19	10.24	10.29	10.34	10.40
Module Efficiency ( % )	20.16	20.41	20.66	20.92	21.17	21.42

<sup>\*</sup>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

Electrical Properties NOCT*						
Testing Condition	Front Side					
Peak Power ( Pmax ) (W)	303	306	310	314	318	322
MPP Voltage ( Vmp ) (V)	38.9	39.2	39.5	39.8	40.0	40.2
MPP Current ( Imp ) (A)	7.77	7.81	7.85	7.89	7.93	7.99
Open Circuit Voltage ( Voc ) (V)	47.6	47.9	48.2	48.5	48.7	48.7
Short Circuit Current ( Isc ) (A)	8.18	8.22	8.26	8.30	8.34	8.39

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

#### **Operating Properties** -40°C~+85°C Operating Temperature ( °C ) Maximum System Voltage ( V ) 1500V ( IEC ) Maximum Series Fuse Rating(A) 20 Power Tolerance 0~+5W Bifaciality\* 80% \*Bifaciality=Pmaxrear ( STC ) /Pmaxfront ( STC ) , Bifaciality tolerance:±5%

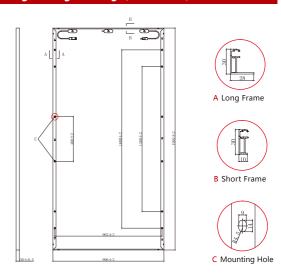
Temperature Coefficient		
Temperature Coefficient of Pmax*	-0.320%/°C	
Temperature Coefficient of Voc	-0.260%/°C	
Temperature Coefficient of Isc	+0.046%/°C	
Nominal Operating Cell Temperature (NOCT)	42±2℃	

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

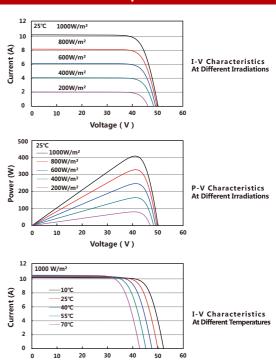
Mechanical Properties	
Cell Type	158.75mm*158.75mm
Number of Cells	72pcs(6*12)
Dimension	1992mm*996mm*30mm
Weight	25Kg
Front /Rear Glass*	2.0mm/2.0mm
Frame	Anodized Aluminium
Junction Box	IP68 ( 3 diodes )
Length of Cable*	4.0mm² , 300mm
Connector	MC4 Compatible

With Different Power Generation Gain ( regarding 405W 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	437	41.8	10.46	50.1	10.98	
15	454	41.9	10.84	50.2	11.38	
20	470	41.9	11.22	50.2	11.78	
25	486	41.9	11.60	50.2	12.18	
30	502	41.9	11.99	50.2	12.57	

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



#### Characteristic Curves D72N-405



Packaging Configuration					
Packing Type	20'GP	40'GP	40'HQ		
Piece/Pallet		35			
Pallet/Container	5	11	22		
Piece/Container	175	385	770		

Voltage (V)



REV: H

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