

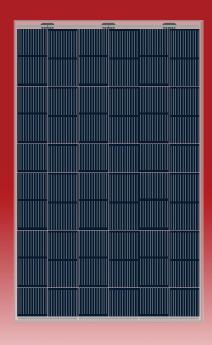
## JW-D60N

N-type Bifacial High Efficiency Mono Silicon Double Glass Module

320-345W

Cell Type





345W Maximum Power Output

20.74% 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



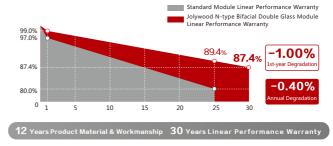
#### Wider Applicability

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



- 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-D60N Series | N-type Bifacial High Efficiency Mono Silicon Double Glass Module

| <b>Electrical Properties</b>      | STC*       |            |            |            |            |            |
|-----------------------------------|------------|------------|------------|------------|------------|------------|
| Testing Condition                 | Front Side |
| Peak Power ( Pmax ) (W)           | 320        | 325        | 330        | 335        | 340        | 345        |
| MPP Voltage ( Vmp ) (V)           | 33.8       | 34.1       | 34.4       | 34.7       | 35.1       | 35.4       |
| MPP Current ( Imp ) (A)           | 9.48       | 9.54       | 9.60       | 9.66       | 9.70       | 9.75       |
| Open Circuit Voltage ( Voc ) (V)  | 40.7       | 41.0       | 41.2       | 41.5       | 41.8       | 42.1       |
| Short Circuit Current ( Isc ) (A) | 9.96       | 10.01      | 10.07      | 10.12      | 10.17      | 10.22      |
| Module Efficiency ( % )           | 19.24      | 19.54      | 19.84      | 20.14      | 20.44      | 20.74      |

<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

| <b>Electrical Properties</b>      | NOCT*      |            |            |            |            |            |
|-----------------------------------|------------|------------|------------|------------|------------|------------|
| Testing Condition                 | Front Side |
| Peak Power ( Pmax ) (W)           | 242        | 246        | 250        | 253        | 257        | 261        |
| MPP Voltage ( Vmp ) (V)           | 31.7       | 32.0       | 32.3       | 32.5       | 32.9       | 33.2       |
| MPP Current ( Imp ) (A)           | 7.64       | 7.69       | 7.74       | 7.79       | 7.82       | 7.86       |
| Open Circuit Voltage ( Voc ) (V)  | 38.9       | 39.2       | 39.4       | 39.7       | 40.0       | 40.2       |
| Short Circuit Current ( Isc ) (A) | 8.03       | 8.07       | 8.12       | 8.16       | 8.20       | 8.24       |

<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%

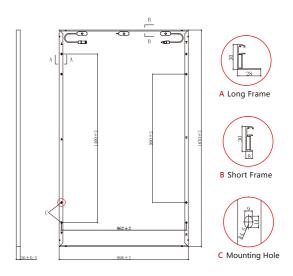
| Temperature Coefficient                   |            |  |
|---|------------|--|
| Temperature Coefficient of Pmax*          | -0.320%/°C |  |
| Temperature Coefficient of Voc            | -0.260%/°C |  |
| Temperature Coefficient of Isc            | +0.046%/°C |  |
| Nominal Operating Cell Temperature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

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

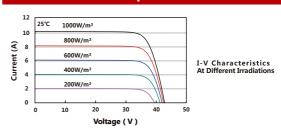
| Mechanical Properties |                            |
|-----------------------|----------------------------|
| Cell Type             | 158.75mm*158.75mm          |
| Number of Cells       | 60pcs(6*10)                |
| Dimension             | 1670mm*996mm*30mm          |
| Weight                | 25.5Kg                     |
| Front /Rear Glass*    | 2.5mm/2.5mm                |
| Frame                 | Anodized Aluminium         |
| Junction Box          | IP67 ( 3 diodes )          |
| Length of Cable*      | 4.0mm <sup>2</sup> , 300mm |
| Connector             | MC4 Compatible             |
|                       |                            |

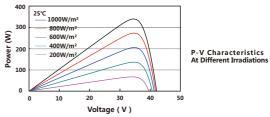
| With Differe      | ent Power Ge               | neration Gair              | ı ( regarding .            | 340W as an e                        | xample )                             |
|-------------------|----------------------------|----------------------------|----------------------------|-------------------------------------|--------------------------------------|
| Power Gain<br>(%) | Peak Power<br>( Pmax ) (W) | MPP Voltage<br>( Vmp ) (V) | MPP Current<br>( Imp ) (A) | Open Circuit Voltage<br>( Voc ) (V) | Short Circuit Current<br>( Isc ) (A) |
| 10                | 367                        | 35.1                       | 10.46                      | 41.8                                | 10.96                                |
| 15                | 381                        | 35.1                       | 10.83                      | 41.8                                | 11.36                                |
| 20                | 394                        | 35.2                       | 11.21                      | 41.9                                | 11.76                                |
| 25                | 408                        | 35.2                       | 11.59                      | 41.9                                | 12.15                                |

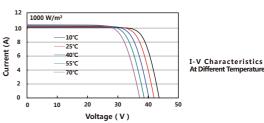
#### **Engineering Drawing (unit:mm)**



#### Characteristic Curves | D60N-340







| Packaging Configuration |       |       |       |  |  |
|-------------------------|-------|-------|-------|--|--|
| Packing Type            | 20'GP | 40'GP | 40'HQ |  |  |
| Piece/Pallet            |       | 35    |       |  |  |
| Pallet/Container        | 6     | 13    | 26    |  |  |
| Piece/Container         | 210   | 455   | 910   |  |  |

<sup>\*</sup>The specification and key features described in this datashet 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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