

JW Pro Series

n-Type Bifacial Dual Glass Mono Module

JW-HD144N-R0 570-595W

Maximum
Power Output

595W

Maximum Module
Efficiency

23.03%

Power Output
Tolerance

0~+3%

n-TOPCon



Higher Customer Value

- Lower 1st-year and annual degradation
- Lower system BOS cost, higher power generation, lower LCOE, and higher ROI
- Dual-side power generation, with up to 30% increase in backside power generation in different installation environments, further reducing overall BOS and LCOE



Higher Power Generation Gain

- Excellent IAM property and better weak illumination response
- Lower 1st-year degradation (1%) and annual degradation (0.4%)
- Lower temperature coefficient (-0.30%) and lower operating temperature, resulting in more power generation



High Reliability

- Apply latest generation TOPCon technology with lower LID and LETID
- Apply innovative non-destructive cutting technology to reduce the risk of micro cracks
- Withstand harsh environmental conditions, such as salt mist, ammonia, PID, dust and sand, and high-temperature and high-humidity



High Safety

- Latest TOPCon technology with no polysilicon wrap around, zero leakage current and better resistance to hot-spot.
- Pass mechanical load test of 5400Pa on the front side and 2400Pa on the back side

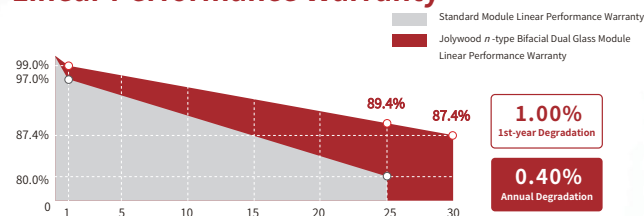


Munich RE  



IEC61215(2021)/IEC61730(2023)/IEC61701/IEC62716
ISO9001:2015: Quality Management System
ISO14001:2015: Environment Management System
ISO45001:2018: Occupational health and safety
IEC62941:2019: Quality system for PV module manufacturing

Linear Performance Warranty



12 Years Product Material & Workmanship 30 Years Linear Performance Warranty

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www.jolywood.cn

Add: No.6 Kaiyang Rd., Jiangyan Economic Development Zone,
Taizhou, Jiangsu Province, China, 225500

TEL: +86 523 80612799

Email: mkt@jolywood.cn



JW-HD144N | n-type Bifacial Dual Glass Mono Module

Electrical Properties | STC*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (P _{max}) (W)	570	575	580	585	590	595
MPP Voltage (V _{mp}) (V)	44.07	44.25	44.43	44.61	44.79	44.97
MPP Current (I _{mp}) (A)	12.93	12.99	13.05	13.11	13.17	13.23
Open Circuit Voltage (V _{oc}) (V)	51.37	51.57	51.77	51.97	52.17	52.37
Short Circuit Current (I _{sc}) (A)	13.70	13.76	13.82	13.88	13.94	14.00
Module Efficiency (%)	22.07	22.26	22.45	22.65	22.84	23.03

*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 practical testing
Power Measurement Tolerance ±3%

Electrical Properties | NMOT*

Testing Condition	Front Side	Front Side	Front Side	Front Side	Front Side	Front Side
Peak Power (P _{max}) (W)	427	431	434	438	442	446
MPP Voltage (V _{mp}) (V)	42.20	42.37	42.54	42.71	42.89	43.06
MPP Current (I _{mp}) (A)	10.12	10.16	10.21	10.26	10.30	10.35
Open Circuit Voltage (V _{oc}) (V)	49.19	49.38	49.57	49.76	49.95	50.14
Short Circuit Current (I _{sc}) (A)	11.06	11.11	11.16	11.21	11.26	11.30

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

Electrical Properties Under Different Rear Gain | HD144N-590

Power Gain (%)	Peak Power (P _{max}) (W)	MPP Voltage (V _{mp}) (V)	MPP Current (I _{mp}) (A)	Open Circuit Voltage (V _{oc}) (V)	Short Circuit Current (I _{sc}) (A)
10	649.0	44.59	14.55	51.97	15.40
15	678.5	44.59	15.22	51.97	16.10
20	708.0	44.69	15.84	52.07	16.77
25	737.5	44.69	16.50	52.07	17.47
30	767.0	44.69	17.16	52.07	18.17

Operating Properties

Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500V (IEC)
Maximum Series Fuse Rating	30A
Bifaciality*	80%
Front Static Load	Snow load 5400Pa, Wind load 2400Pa

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

Temperature Coefficient

Temperature Coefficient of P _{max} *	-0.300%/°C
Temperature Coefficient of V _{oc}	-0.250%/°C
Temperature Coefficient of I _{sc}	+0.045%/°C
Nominal Operating Cell Temperature (NOCT)	42±2°C

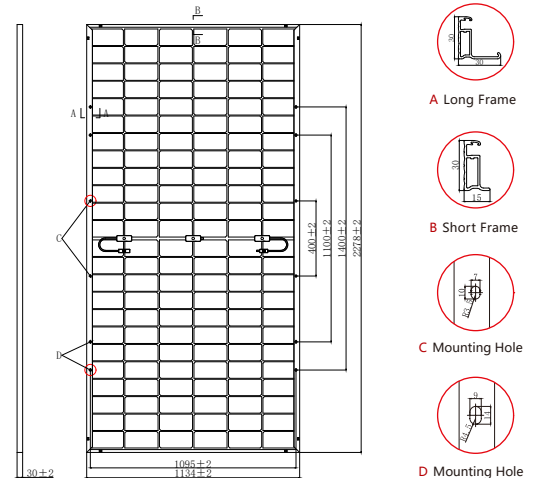
*Temperature Coefficient of P_{max}±0.03%/°C

Specification

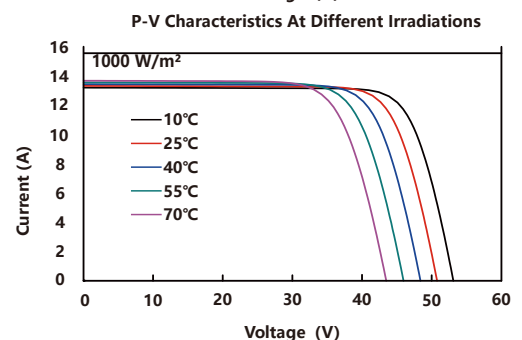
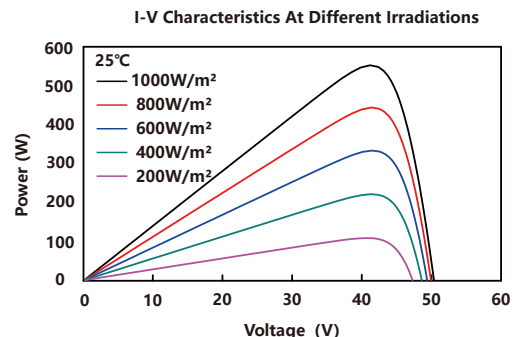
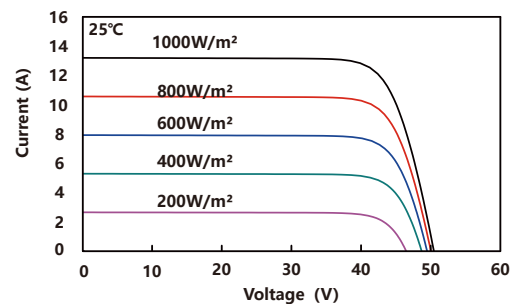
Number of Cells	144pcs
Module Dimension	2278mm*1134mm*30mm
Weight	31.5kg
Front / Rear Glass*	2.0mm/2.0mm Heat strengthened glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 (3 diodes)
Length of Cable	4.0mm ² , +300mm/-180mm (Cable length can be customized)
Packaging Configuration	36pcs/Pallet, 720/40HQ Container

*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.

Engineering Drawing (unit: mm)



Characteristic Curves | HD144N-590



I-V Characteristics At Different Temperatures

www.jolywood.cn



Add: No.6 Kaiyang Rd., Jiangyan Economic Development Zone,
Taizhou, Jiangsu Province, China, 225500

TEL: +86 523 80612799

Email: mkt@jolywood.cn

