



GOLDEN SOLAR

**Make Solar Energy More Efficient!**

# JGDN120

## HJT Bifacial Module



Based on 210 mm wafer, N-type bifacial HJT half-cut cells



Module power up to 670W; module efficiency up to 23.67%



Use super MBB half-cut cell technology to minimize micro-crack impacts, so no cutting loss on modules



Power output from the front is 4.1% more than that of TOPCon module, and power output from the back is 14.76% more than that of TOPCon module



No Boron-Oxygen-Induced Degradation (BO-LID), excellent anti-LeTID & anti-PID performance. Low power degradation, and high energy yield



With the temperature coefficient  $-0.243\%/^{\circ}\text{C}$

# 640W~670W



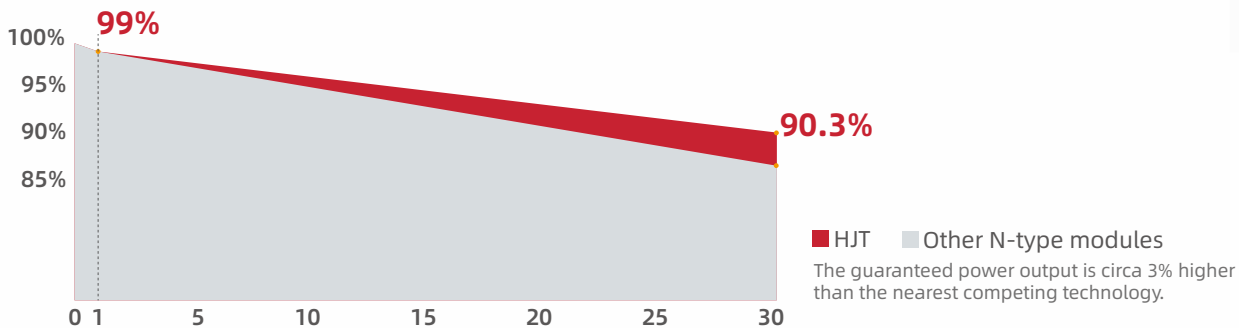
Size > 2 m<sup>2</sup>



15-Year Warranty for Materials and Processing



30-Year Warranty for Extra Linear Power Output



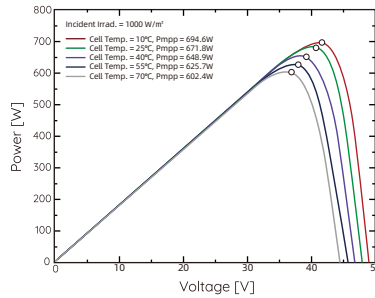
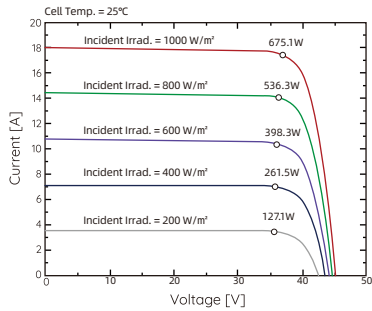
**STC/NMOT** STC (Standard Test Conditions): Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass 1.5.  
 NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m<sup>2</sup>, Air Mass 1.5, Temperature 20°C, Wind Speed 1 m/s.

Model	JGDN120-640		JGDN120-645		JGDN120-650		JGDN120-655		JGDN120-660		JGDN120-665		JGDN120-670	
Power Tolerance (0~+5W)	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Pmax (W)	640	533	645	538	650	543	655	548	660	553	665	558	670	563
Vmp (V)	39.37	37.17	39.48	37.28	39.60	37.40	39.72	37.52	39.84	37.64	39.96	37.76	40.08	37.88
Imp (A)	16.27	14.37	16.34	14.44	16.42	14.52	16.50	14.60	16.58	14.68	16.66	14.76	16.74	14.84
Voc (V)	44.76	42.16	44.82	42.44	44.88	42.28	44.94	42.34	45.00	42.40	45.06	42.46	45.12	42.52
Isc (A)	17.33	15.33	17.42	15.42	17.53	15.53	17.64	15.64	17.75	15.75	17.86	15.86	17.97	15.97
Panel Efficiency (%)	22.60		22.79		22.97		23.14		23.32		23.50		23.67	

**BSTC** BSTC (Bifacial Standard Test Conditions): Front Side Irradiation 1000 W/m<sup>2</sup>, Back Side Reflection Irradiation 135 W/m<sup>2</sup>, Air Mass 1.5, Ambient Temperature 25°C.

Model	JGDN120-640	JGDN120-645	JGDN120-650	JGDN120-655	JGDN120-660	JGDN120-665	JGDN120-670
Power Tolerance (0~+5W)	BSTC	BSTC	BSTC	BSTC	BSTC	BSTC	BSTC
Pmax (W)	705	710	715	720	725	730	735
Vmp (V)	39.37	39.44	39.51	39.58	39.65	39.72	39.79
Imp (A)	17.95	18.02	18.11	18.20	18.29	18.38	18.47
Voc (V)	44.76	44.82	44.88	44.94	45.00	45.06	45.12
Isc (A)	19.11	19.21	19.34	19.47	19.60	19.73	19.86

### Electrical Curves (670W):



### Mechanical Specification

Solar Cell Type	120 half-cut, N-type, HJT cells
Module Dimensions	2172×1303×35 mm
Module Weight	35.5 kg
Front Side	Anti-reflective coated solar glass, 2.0 mm thick
Back Side	Solar glass, 2.0 mm thick
Frame	Anodized aluminum
Junction Box	3 bypass diodes, IP68 rated to IEC 62790
Cable	4 mm <sup>2</sup> PV cable, 0.3 m long (lengths can be customized), complies with EN 50618
Connector	MC4 compatible

### Properties of System Design

Maximum System Voltage	1500V
Maximum Series Fuse Rating	30A
Max. Test Load +/- (incl. Safety Factor of 1.5)	5400/2400Pa
Fire Class according to EN 13501-1	CLASS C (EN13501-1)
Operating Temperature	-40 to + 85°C

### Temperature Coefficients

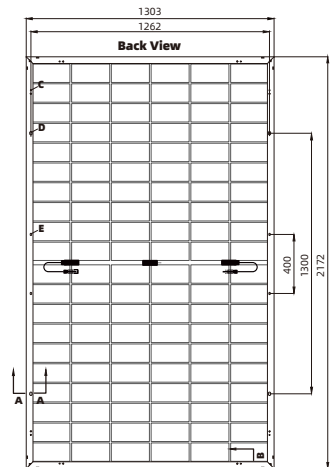
Temperature Coefficient of Isc	+0.026%/ °C
Temperature Coefficient of Voc	-0.223%/ °C
Temperature Coefficient of Pmax	-0.243%/ °C
Nominal Module Operating Temperature (NMOT)	43±3/ °C

### Comprehensive Certificates

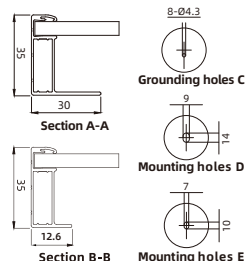
- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems

### Packing

31 pcs/pallet, 558 pcs/40'HQ container



Unit:mm  
Tolerance:Length: ±2mm Width: ±2mm



\*The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the ongoing innovation and product enhancement. Golden Solar reserves the right to make necessary adjustments to the information described herein at any time without further notice.