

## JNMM60-290~310

High-efficiency mono solar module

### Adopting PERC+ cell technology

#### JNMM60

Leading passivated emitter and rear contact technology in the industry.

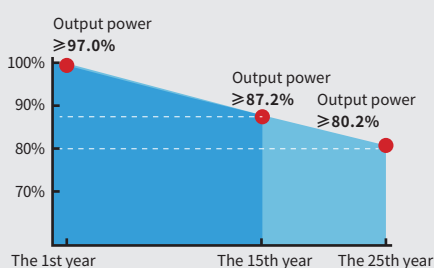
Advanced process to reduce extra degradation of PERC cell.

Higher conversion efficiency to reduce system cost per watt.

#### CERTIFICATION



#### QUALITY ASSURANCE



\*15-year product warranty, 25-year linear power warranty



#### Advanced production process

5 bus-bar design

Average cell efficiency >22.3%



#### Superior quality control

Full automatic production line

ISO 9001:2015 Quality Management System

100% three times EL and appearance inspection



#### Excellent power generation performance

0~+5W positive power tolerance

Improved low light irradiance performance



#### Stable mechanical performance

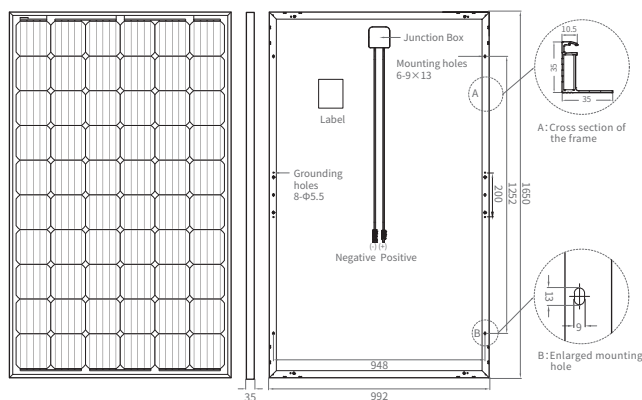
Passed rigorous hail test

Withstands 5400 Pa snow and 2400 Pa wind loads



**JINNENG CLEAN ENERGY TECHNOLOGY LTD**  
**JINNENG PHOTOVOLTAIC TECHNOLOGY LTD**

No.1 Wenshui Economic Development Zone, Lvliang, Shanxi 032100, China  
 No. 533 Guang'an East Street, Yuci District, Jinzhong, Shanxi 030600, China  
 Tel: +86(354)2037999 E-mail:sales@jinery.com



## MECHANICAL PARAMETERS

Cell (mm)	156.75*156.75 Mono
Dimensions (L*W*H) (mm)	1640/1650*992*35/40
Weight (kg)	17.9/18.1/ 18.1/18.2
Cable Cross Section Size (mm <sup>2</sup> )	4
Cable Length (mm)	800/1000
No. of Cells and Connections	60(6*10)
No. of Diodes	3

\*Type of Connector:  
 PV-JN01/PV-KST4/xy-UR, PV-KBT4/xy-UR/PV-KST4-EVO 2/xy\_UR,  
 PV-KBT4-EVO 2/xy\_UR/05-6/05-8

## TEMPERATURE COEFFICIENTS

Normal Operating Cell Temp (NOCT)	45±2°C
Temperature Coefficient Voltage (Voc)	-0.29% / °C
Temperature Coefficient Current (Isc)	0.04% / °C
Temperature Coefficient Power (Pm)	-0.40% / °C

## QUALIFICATION

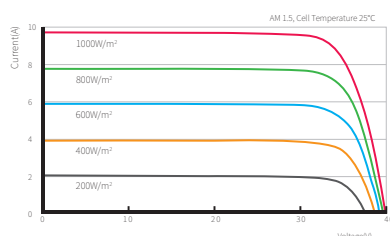
Max.System Voltage (V DC)	1000
Temperature Cycling Range (°C)	-40~+85
Max.Series Fuse Rating (A)	15
Max Reverse Current (A)	15
Max.Wind Load / Max.Snow Load (Pa)	2400/5400
Hot Spot Rate	100% Free
Fire Rating	Class C

## ELECTRICAL PARAMETERS

	JNMM60-290	JNMM60-295	JNMM60-300	JNMM60-305	JNMM60-310	
<b>STC</b> AM1.5, 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	290	295	300	305	310
	Output Tolerance (W)	0+5	0+5	0+5	0+5	0+5
	Max. Power Voltage (Vmp/V)	32.03	32.33	32.62	32.92	33.16
	Max. Power Current (Imp/A)	9.06	9.13	9.20	9.27	9.35
	Open Circuit Voltage (Voc/V)	39.42	39.58	39.75	39.92	40.09
	Short Circuit Current (Isc/A)	9.51	9.57	9.64	9.71	9.76
	Module Efficiency (%)	17.7	18.0	18.3	18.6	18.9
<b>NOCT</b> AM1.5, 800W/m <sup>2</sup> , Ambient Temperature 20°C, Wind Speed 1m/s	Max. Power at NOCT (Pmpp/W)	215.8	219.6	223.3	227.0	230.7
	Max. Power Voltage (Vmp/V)	29.78	30.06	30.34	30.61	30.84
	Max. Power Current (Imp/A)	7.25	7.30	7.36	7.42	7.48
	Open Circuit Voltage (Voc/V)	36.97	37.12	37.28	37.44	37.60
	Short Circuit Current (Isc/A)	7.67	7.72	7.78	7.83	7.87

\* Measurement tolerance: Pmax:±3%, Voc:±3%, Isc:±5%.

## I-V CURVE(300W)



## PACKING CONFIGURATION

Container (High cube)	Platform Semi-Trailer
Pieces Per Pallet	31/27/31/27
Pallets Per Stack	2
Extra Pieces Per Stack	4
Stacks Per Container	14
Pieces Per Container	924/ 812 /924/ 812
Pieces Per Pallet	31/27/31/27
Pallets Per Stack	2
Stacks Per Platform	25
Pieces Per Platform	1550/1350/1550/1350