

# JNMM144-445~455

## High efficiency mono solar module

### JNMM144

All cell production line equipped with SE laser instrument.

Advanced process to reduce extra degradation of PERC cell.

MBB and half-cut design to improve module reliability and reduces loss.

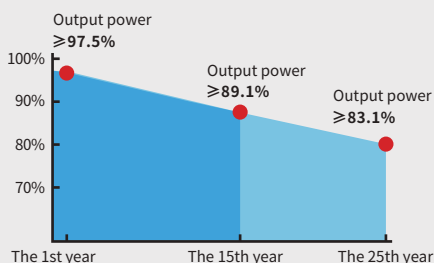
Higher power output effectively reduces BOS and LCOE.

### CERTIFICATION



TUV: IEC/EN 61215, IEC/EN 61730  
 BIS: IS 14286/IEC 61215, IS/IEC 61730  
 GB/T 19001-2016/ISO 9001:2015  
 GB/T 24001-2016/ISO 14001:2015  
 OHSAS 18001:2007  
 CNAS-CL01:ISO/IEC 17025:2017

### QUALITY ASSURANCE



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



#### Advanced production process

Optimized MBB design  
 Cell efficiency >22.5%



#### Superior quality control

Full automatic production line  
 MES and ERP digitizing logistics management  
 100% three times EL and appearance inspection



#### Excellent power generation performance

0~+5W positive power tolerance  
 Improved low light irradiance performance and low degradation



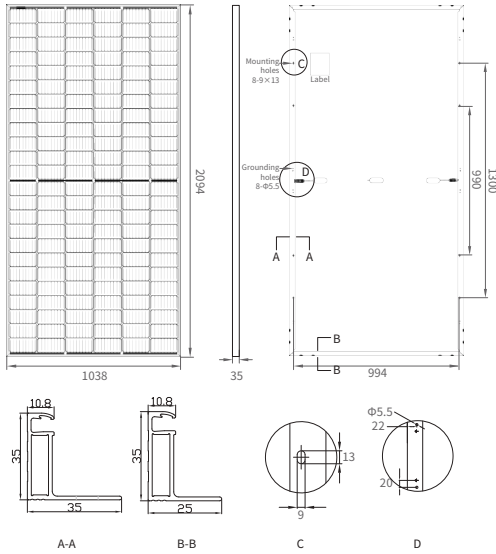
#### Stable mechanical performance

Passed rigorous hail test  
 Withstands 5400Pa snow and 2400Pa wind loads



### JINNENG CLEAN ENERGY TECHNOLOGY LTD JINNENG PHOTOVOLTAIC TECHNOLOGY LTD

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**MECHANICAL PARAMETERS**

Cell (mm)	166*83 Mono
Dimensions (L*W*H) (mm)	2094*1038*35/40 2108*1048*35/40
Weight (kg)	23.3/23.6 23.5/23.8
Cable Cross Section Size (mm <sup>2</sup> )	4
Cable Length (mm)	Positive 295 / Negative 145
No. of Cells & Connections	144(6*24)
No. of Diodes	3
Type of Connector	PV-JN01/PV-KST4-EVO 2/xy_UR,PV-KBT4-EVO2/xy_UR

**QUALIFICATION**

Max. System Voltage (V DC)	1500
Temperature Cycling Range (°C)	-40~+85
Max. Series Fuse Rating (A)	20
Max. Wind Load / Max. Snow Load (Pa)	2400 / 5400
Hot Spot Rate	100% Free
Fire Rating	Class C
Junction Box & Connector Protection Grade	IP68

**TEMPERATURE COEFFICIENTS**

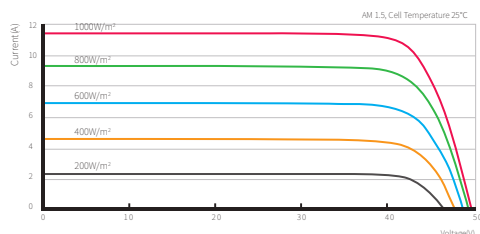
Nominal Module Operating Temperature (NMOT)	43±2°C
Temperature Coefficient Voltage (Voc)	-0.29 %/°C
Temperature Coefficient Current (Isc)	0.04 %/°C
Temperature Coefficient Power (Pm)	-0.37 %/°C

**ELECTRICAL PARAMETERS**

Module Type	JNMM144-445	JNMM144-450	JNMM144-455	
<b>STC</b> AM1.5 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	445	450	455
	Output Tolerance (W)	0-+5	0-+5	0-+5
	Max. Power Voltage (Vmp/V)	41.16	41.36	41.56
	Max. Power Current (Imp/A)	10.82	10.89	10.96
	Open Circuit Voltage (Voc/V)	49.78	49.98	50.18
	Short Circuit Current (Isc/A)	11.42	11.50	11.58
	Module Efficiency (%)	20.5	20.7	20.9
<b>NMOT</b> AM1.5 800W/m <sup>2</sup> Ambient Temperature 20°C Wind Speed 1m/s	Max. Power at NMOT (Pmpp/W)	334.9	338.7	342.5
	Max. Power Voltage (Vmp/V)	38.69	38.88	39.06
	Max. Power Current (Imp/A)	8.66	8.71	8.77
	Open Circuit Voltage (Voc/V)	47.00	47.18	47.37
	Short Circuit Current (Isc/A)	9.19	9.26	9.32

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

**I-V CURVE(450W)**



**PACKING CONFIGURATION**

**Container (High cube)**

Pieces Per Pallet	31/27/31/27
Pallets Per Stack	2
Stacks Per Container	11
Pieces Per Container	682/594/682/594