

# JNMM120-435~460

## High efficiency mono solar module

### JNMM120

Deploying 182 wafer and advanced PERC technology, the module features high efficiency.

MBB and high-density interconnect technology improves power output and module efficiency.

Deploying advanced non-destructive cutting and half-cut technology, the module features excellent mechanical performance.

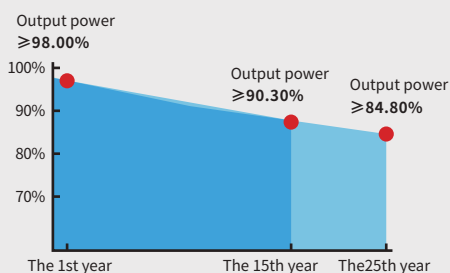
Higher power output brings competitive LCOE and BOS cost, more suitable for ground-mount and C&I PV stations.

### CERTIFICATION



TUV: IEC/EN 61215, IEC/EN 61730  
 GB/T 19001-2016/ ISO 9001:2015  
 GB/T 24001-2016/ ISO 14001:2015  
 GB/T 45001-2020/ ISO 45001:2018  
 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 >23.0%



#### 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



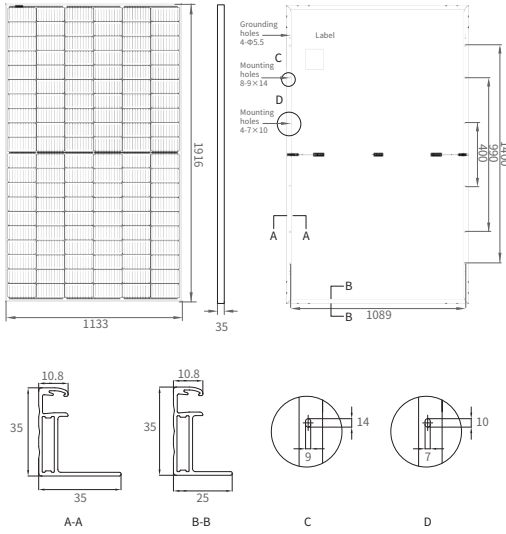
#### Stable mechanical performance

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



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**MECHANICAL PARAMETERS**

Cell (mm)	182*91 Mono
Dimensions (L*W*H) (mm)	1916*1133*35
Weight (kg)	23.3
Cable Cross Section Size (mm <sup>2</sup> )	4
No. of Cells & Connections	120(6*20)
No. of Diodes	3
Connector Type	PV-JN01/PV-KST4-EVO 2/xy_UR,PV-KBT4-EVO2/xy_UR

**QUALIFICATION**

Temperature Cycling Range (°C)	-40~+85
Max. Series Fuse Rating (A)	25
Max. Wind Load / Max. Snow Load (Pa)	2400 / 5400
Hot Spot Rate	100% Free
Fire Rating	Class C
Junction Box & Connector Protection Grade	IP68

**ELECTRICAL PARAMETERS**

Module Type	(1500V DC)	JNMM120-435	JNMM120-440	JNMM120-445	JNMM120-450	JNMM120-455	JNMM120-460
<b>STC</b> AM1.5 1000W/m <sup>2</sup> Cell Temperature 25°C	Max. Power at STC (Pmpp/W)	435	440	445	450	455	460
	Output Tolerance (W)	0-+5	0-+5	0-+5	0-+5	0-+5	0-+5
	Max. Power Voltage (Vmp/V)	33.76	34.07	34.32	34.63	34.85	35.07
	Max. Power Current (Imp/A)	12.89	12.92	12.97	13.00	13.06	13.12
	Open Circuit Voltage (Voc/V)	39.74	40.08	40.39	40.72	41.03	41.34
	Short Circuit Current (Isc/A)	13.70	13.74	13.79	13.83	13.88	13.93
	Module Efficiency (%)	20.03	20.27	20.50	20.73	20.96	21.19
<b>NMOT</b> AM1.5 800W/m <sup>2</sup> Ambient Temperature 20°C Wind Speed 1m/s	Max. Power at NMOT (Pmpp/W)	328.5	332.3	336.1	339.8	343.6	347.4
	Max. Power Voltage (Vmp/V)	31.86	32.15	32.39	32.68	32.89	33.10
	Max. Power Current (Imp/A)	10.31	10.34	10.38	10.40	10.45	10.50
	Open Circuit Voltage (Voc/V)	37.52	37.84	38.13	38.44	38.73	39.03
	Short Circuit Current (Isc/A)	11.03	11.06	11.10	11.13	11.18	11.22

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

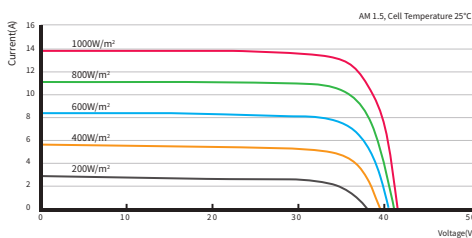
**PACKING CONFIGURATION**

Pieces Per Pallet	31
Pallets Per Stack	2
Stacks Per Container	12
Pieces Per Container	744

**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)	-0.35 %/°C

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



**Optional**

Cable Length	<input type="checkbox"/> 400mm / 300mm	<input type="checkbox"/> Customized
Frame Color	<input type="checkbox"/> Silver	<input type="checkbox"/> Black

Notes: