

## Photovoltaic Module Monocrystalline120

### KEY FEATURES



High module efficiency through superior manufacturing technology



No power loss thanks to improved temperature co-efficient caused by 10 busbar solar cell



Strictly control the micro-crack of solar cells and the other non visible defect of internal modules



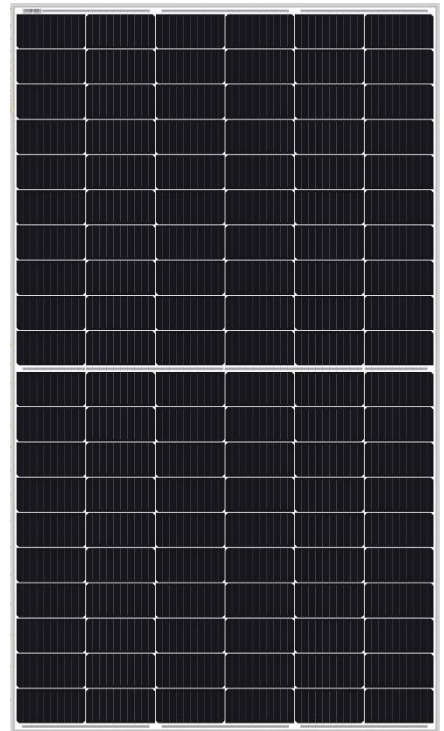
Module can bear snow loads up to 5400Pa and wind loads up to 2400Pa



Manufactured according to and certified international I Quality and Environment Management System



Using advanced low reflection and high light transmission glass and cell sheet surface cutting technology, in the weak light environment can also play a good performance.



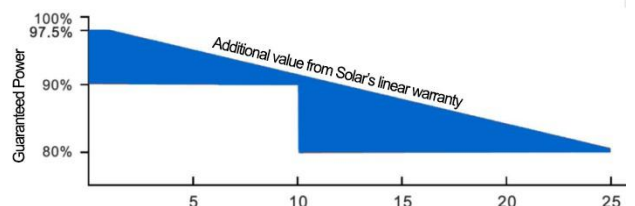
### Certificates

- IEC61215, IEC61730, CQC, CE, TUV
- ISO9001:2015
- ISO14001:2015
- ISO45001:2018



### Warranties

- 10 years product warranty
- 25 years power warranty



## Electrical Characteristics

Model	NS-445S8	NS-450S8	NS-455S8	NS-460S8
Maximum Power at STC(Pmax)	445	450	455	460
Optimum Operating Voltage (Vmp)	34.63	34.80	34.97	35.16
Optimum Operating Current (Imp)	12.86	12.94	13.02	13.09
Open-Circuit Voltage (Voc)	41.30	41.50	41.70	41.90
Short-Circuit Current (Isc)	13.55	13.64	13.73	13.80
Solar Cell Efficiency (%)	22.47	22.72	22.97	23.22
Solar Module Efficiency (%)	20.57	20.80	21.04	21.27
Operating Temperature	-40to85°C			
Maximum System Voltage	DC1500V			
Maximum Series Fuse Rating	25A			
Power Tolerance	0~+3%			
STC:Irradiance 1000W/m <sup>2</sup> ,Modules Temperature 25°C,AM=1.5				

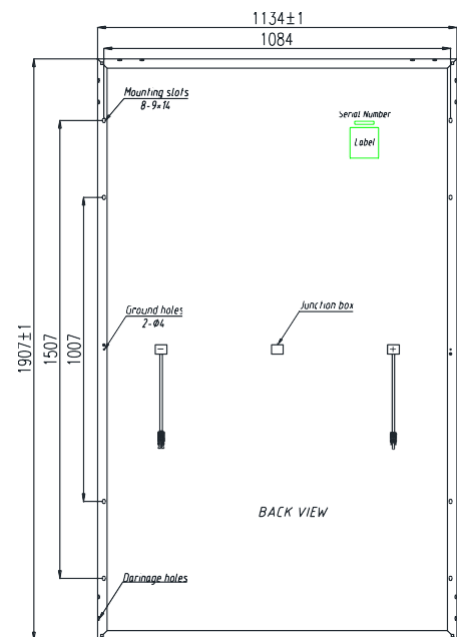
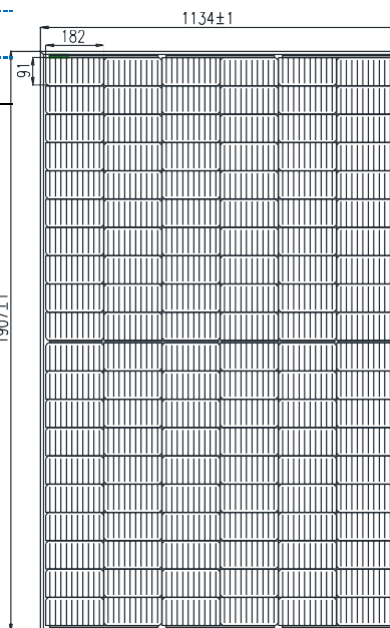
## Temperature Coefficient

NOCT	45°C+/-2°C
Temperature Coefficient of Pmax	-0.39%/°C
Temperature Coefficient of VOC	-0.29%/°C
Temperature Coefficient of ISC	+0.05%/°C

## Engineering Drawings

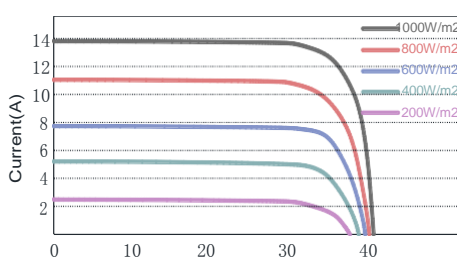
### Mechanical Characteristics

No.of cells	120(6×10+6×10)
Dimensions	1907mm*1134mm*35mm
Weight	23.7kg
Front glass	3.2mm tempered glass
Frame	Anodized aluminium alloy
Junction box	IP68, three diodes
Connector	Plug and socket
Output cables	PV 4.0mm <sup>2</sup>
1*20'	/
1*40HQ	744pcs

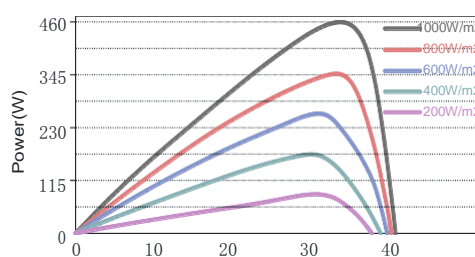


## IV-Curves

Current-Voltage Curver



Power-Voltage Curver



Voltage current curve at different temperatures

