

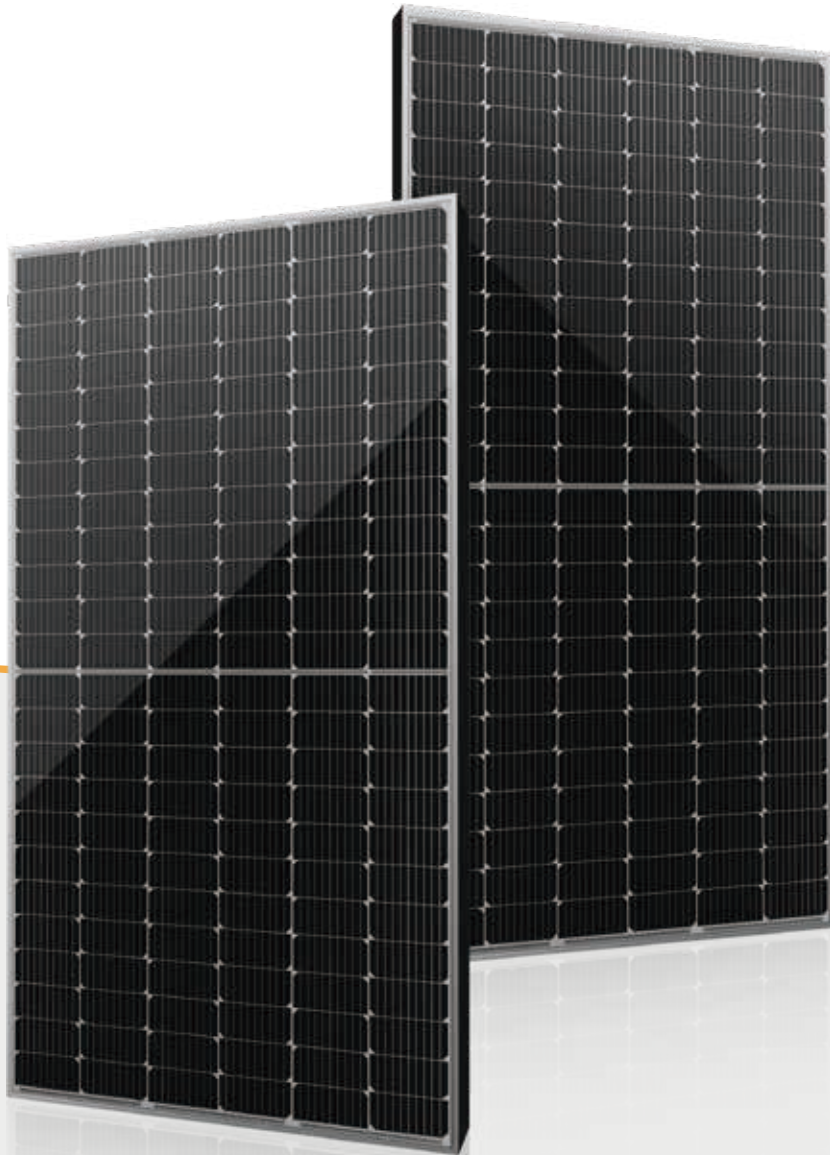


POWER SOLID

PS445W#PVPM

## 144 HALF-CELLSERIES

Multiple Upgrades Were Forged Into One



**【445W】**

# 144 HALF-CELL SERIES 445W



## 144 Half-Cell Series – The Amalgamation Of Advanced Technologies

NB redefined the high-efficiency module series by integrating 166mm silicon wafers with multi-busbar and half-cut cell technologies. The maximum module efficiency of the new 166 half-cell series is 20%, and the maximum power output is 445W.

### Less Mismatch Loss

Instead of 6 internal strings of cells, the 166 half-cell series module has 2 x 6 shorter ones. This design effectively deals with the mismatch happened between cells caused by shadow, out of sync performance degradation, ect.

### Less Internal Power Loss

The ribbon length of half-cell is shorter than normal cell. Calculated by Joule's law and Ohm' law, the power loss reduction is nearly 6%.

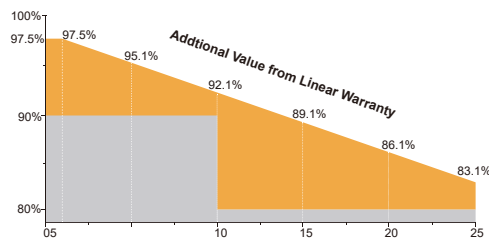
#### Product Certificates



#### Insurance



#### Warranty



15  
YEARS

Guarantee on product material and workmanship

25  
YEARS

linear power output warranty

### More Benefits



Higher module conversion efficiency up to 20%



Outstanding performance at low irradiance



Less mismatch and parallel design reduce shading impact



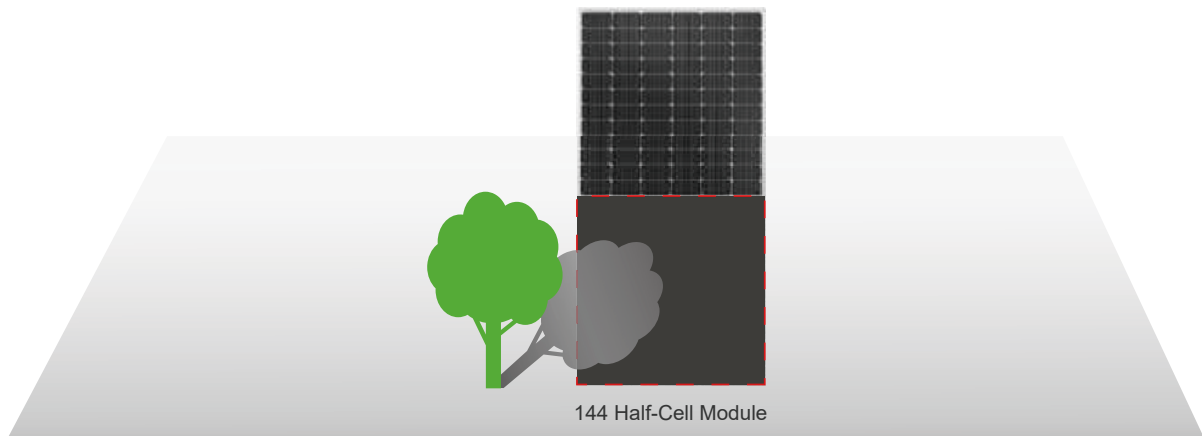
Excellent temperature dependent performance



Lower risk of hot spot effects



Significantly lower LCOE, and BoS cost savings



# 144 HALF-CELL SERIES

## 445W



### Electrical Characteristics

Module Type	PS445W#PVPM	
	STC	NOCT
Maximum Power at STC (Pmp)	445	332
Open Circuit Voltage (Voc)	49.9	45.6
Short Circuit Current (Isc)	11.34	9.17
Maximum Power Voltage (Vmp)	41.6	38.5
Maximum Power Current (Imp)	10.70	8.63
Module Efficiency at STC(ηm)	20.00	
Power Tolerance	(0,+4.99)	
Maximum System Voltage	1000 VDC	
Maximum Series Fuse Rating	20A	

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5;

### Temperature Characteristics

Pmax Temperature Coefficient	-0.36 %/°C
Voc Temperature Coefficient	-0.28 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40 ~ +85 °C
Nominal Operating Cell Temperature(NOCT)	45±2 °C

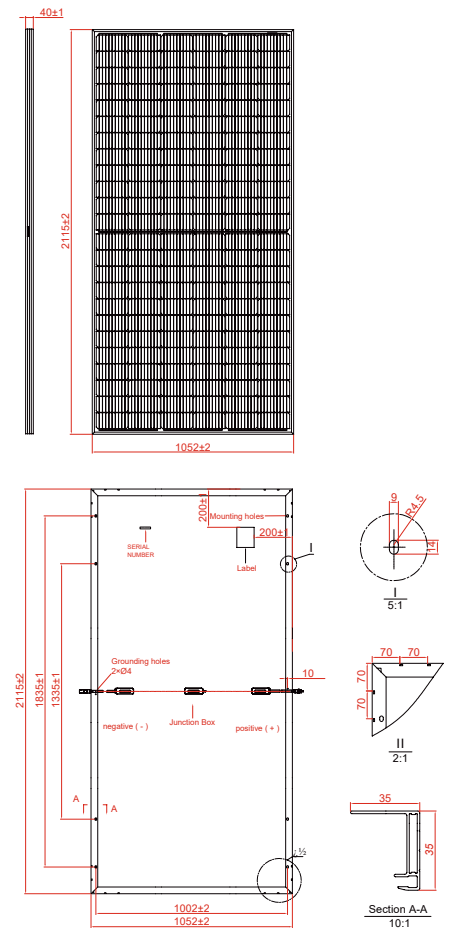
### Mechanical Specifications

External Dimensions	2115*1052*35 mm
Weight	25.0kg
Solar Cells	PERC Mono 166 x 83mm (144pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0 mm <sup>2</sup> , Portrait:255mm(+)/355mm(-)
Connector	MC4 Compatible
Mechanical Load	Front side 5400Pa/ Rear side 2400Pa

### Mechanical Loading

	2115×1052×40mm		
Container	20'GP	40'GP	40'HQ
Pieces per Pallet	30	30	30
Pallets per Container	5	11	22
Pieces per Container	150	330	660

\* 30pieces per pallet is the special package which only suits for container transport.



### I-V Curve

