NBS
New Best Solution
NBS ENERGY GROUP CO., LTD.

M6

12 YEARS Guarantee on product material and workmanship

30 YEARS Linear power output warranty

Double Glass / Bifacial Module

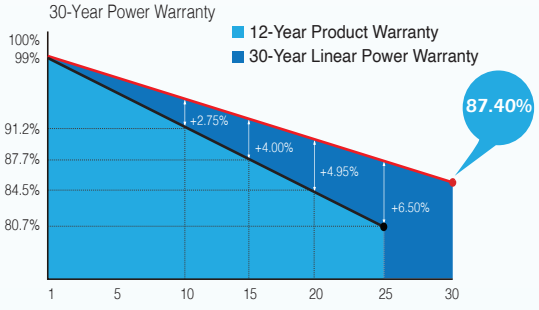
NB144M-M6PBD-A(430~450)

Solar Cells With PERC Technology
High Efficiency MONO Solar Module

The product adopts MBB high efficiency PERC cell combined with half cut. It can cope with the rising efficiency and diversification demand of residential roofs, industrial and commercial roofs, and large ground power stations.

- Mono MBB half cut technology Double-sided electricity generation
- Production process reliability test
- 3 times EL test to ensure best quality
- Competitive low light performance
- Less mismatch to get more power
- Less power loss by minimizing the shading impact
- Ideal choice for utility and commercial scale projects by reduced BOS and improved ROI
- PVEL — Outstanding reliability proven by PVEL for stringent environment condition: Sand, Acid, Salt, Hailstones Anti-PID

QUALITY ASSURANCE



CERTIFICATION

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

NBS ENERGY GROUP CO., LTD.
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On-grid commerical industrial roof-tops

On-grid residential roof-tops

NB144M-M6PBD-A

M6-144 Half-Cut Cell | MBB Mono PERC | Double Glass | Bifacial Module

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ELECTRICAL PARAMETERS

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

Module Type NB144M-M6PBD-	A430		A435		A440		A445		A450	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power - Pmax (W)	430	318.43	435	322.14	440	325.84	445	329.54	450	333.24
Maximum Power Voltage - Vmpp (V)	40.57	37.51	40.77	37.7	40.97	37.88	41.17	38.07	41.37	38.25
Maximum Power Current - Impp (A)	10.6	8.48	10.67	8.54	10.74	8.6	10.81	8.65	10.88	8.71
Open Circuit Voltage - Voc (V)	49.38	46.04	49.63	46.27	49.87	46.5	50.11	46.72	50.35	46.95
Short Circuit Current - Isc (A)	11.12	8.93	11.2	9	11.27	9.05	11.34	9.11	11.41	9.17
Module Efficiency	19.79		20.02		20.25		20.48		20.71	

STC: irradiance 1,000 W/m2; Spectra at AM 1.5; module temperature 25°C. Power output tolerance: 0~+5W. Measuring tolerance of power: ±3%
NMOT: irradiance 800 W/m2; Spectra at AM 1.5; Cell temperature 45°C; Ambient temperature 20°C. Wind speed 1m/s

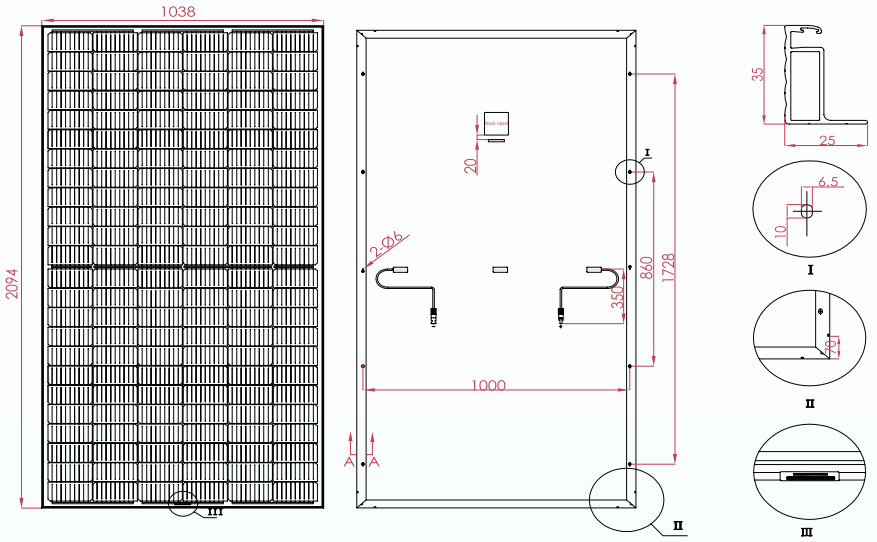
BIFACIAL REARSIDE POWER GAIN

Electrical characteristics with different rear side power gain for reference to 340W front.

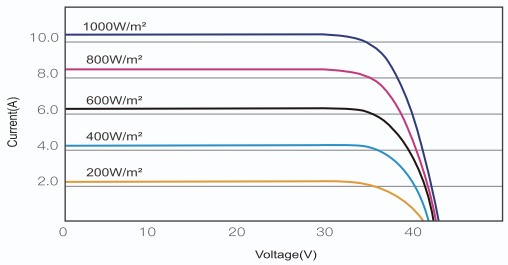
Maximum Power	Pmax Gain	Voc/V	Isc/A	Vmp/V	Imp/A
484W	10%	48.72	12.55	40.97	11.82
506W	15%	48.73	13.11	40.98	12.35
528W	20%	48.74	13.69	40.99	12.89
550W	25%	48.75	14.25	41	13.42

Bifacial gain: the additional gain from the rear side compared to the power of the front side at the standard test condition.
It depends on mounting (structure, height, tilt angle, etc.) and albedo of the ground.

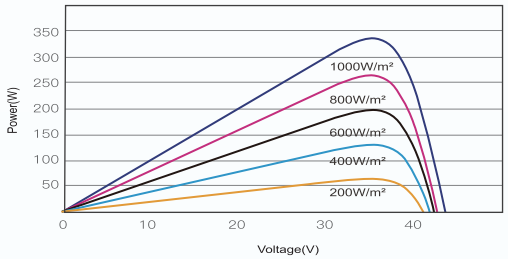
DIMENSIONS OF PV MODULE



I -V CURVES OF PV MODULE



P - V CURVES OF PV MODULE



MECHANICAL DATA

Solar Cells (mm)	166 x 83 Mono Bifacial PERC
Cell Orientation	144 Cells (6 x 24)
Module Dimensions (L*W*H)	2094 x 1038 x 35mm
Weight (Kg)	27 kg
Glass	2.0 mm low-iron tempered suede glass
Backsheet	Transpaent
Frame	Sliver anodized aluminum alloy
J-Box	IP68, 3 bypass diodes
Cables	Length 350mm, 1x4.0mm²
Connector	MC4 and MC4 Compatible

TEMPERATURE RATINGS

NMOT	45°C (±2°C)
Temperature Coefficient of Pmax	-0.365%/°C
Temperature Coefficient of Voc	-0.285%/°C
Temperature Coefficient of Isc	+0.055%/°C

MAXIMUN RATING

Operational Temperature (°C)	-40°C to +85°C
Maximum System Voltage (VDC)	1500
Max Series Fuse Rating (A)	20
Mechanical Load Front (Pa)	5,400
Mechanical Load Back (Pa)	2,400

PACKING CONFIGURATION Module per box: 31 Pieces

MODULE PER CONTAINER 726 Pieces

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCTS.