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

mio

12 YEARS Guarantee on product material and workmanship

25 YEARS Linear power output warranty

Bifacial Module

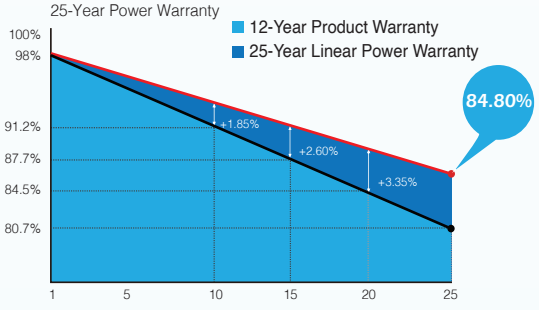
NB144M-M10PB-A(535~550)

Solar Cells With PERC Technology
High Efficiency MONO Solar Module

Excellent technical advantages and system design scheme to achieve high reliability, power generation effective gain and EPC cost reduction. Products can match different installation conditions, taking into account high adaptability and high compatibility. With mature support and inverter scheme, customized design for industrial and commercial and centralized 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.
www.nbsenergy.com | sales@nbsenergy.com

On-grid commerical industrial roof-tops

On-grid residential roof-tops

NB144M-M10PB-A

M10-144 Half-Cut Cell | MBB Mono PERC | Bifacial Module

NBS ENERGY GROUP CO., LTD.

ELECTRICAL PARAMETERS

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

Module Type	NB144M-M10PB-A535		NB144M-M10PB-A540		NB144M-M10PB-A545		NB144M-M10PB-A550	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power - Pmax (W)	535	398.16	540	401.88	545	405.61	550	409.33
Maximum Power Voltage - Vmpp (V)	40.59	37.76	40.72	37.89	40.85	38.01	40.98	38.13
Maximum Power Current - Impp (A)	13.19	10.55	13.27	10.61	13.35	10.68	13.43	10.74
Open Circuit Voltage - Voc (V)	49.17	46.41	49.33	46.56	49.49	46.723	49.64	46.86
Short Circuit Current - Isc (A)	13.88	11.21	13.97	11.28	14.05	11.35	14.14	11.42
Module Efficiency	20.73		20.93		21.12		21.31	

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

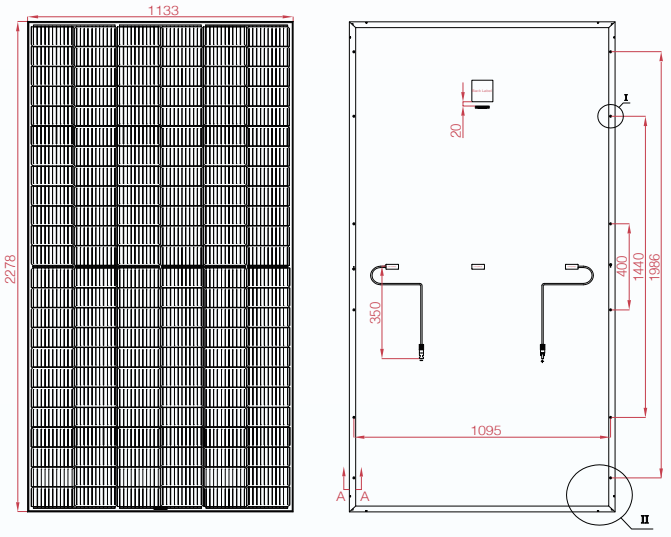
BIFACIAL REARSIDE POWER GAIN

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

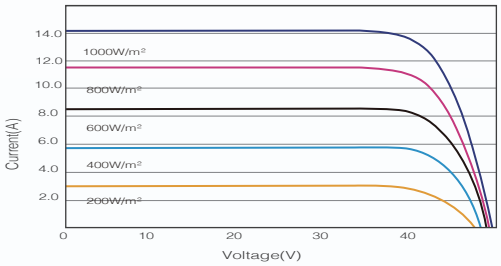
Maximum Power	Pmax Gain	Voc/V	Isc/A	Vmp/V	Imp/A
588.5W	10%	49.19	15.26	40.61	14.5
615.25W	15%	49.21	15.95	40.62	15.15
642W	20%	49.22	16.64	40.63	15.81
668.75W	25%	49.23	17.32	40.64	16.46

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.

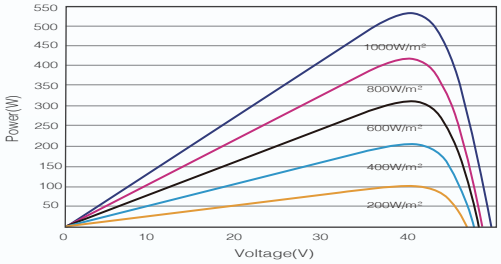
DIMENSIONS OF PV MODULE



I -V CURVES OF PV MODULE



P - V CURVES OF PV MODULE



MECHANICAL DATA

Solar Cells (mm)	182 x 91mm Mono Bifacial PERC
Cell Orientation	144 Cells (6×24)
Module Dimensions (L*W*H)	2278×1133×35mm
Weight (Kg)	28 kg
Glass	3.2 mm coated tempered glass
Backsheet	White
Frame	Silver anodized aluminum alloy
J-Box	IP68, 3 bypass diodes
Cables	Length 350mm, 1x4.0mm²
Connector	4mm², EVO2 or EVO2 compatible
PACKING CONFIGURATION	Module per box: 31 Pieces

TEMPERATURE RATINGS

NMOT	45°C (±2°C)
Temperature Coefficient of Pmax	-0.348%/°C
Temperature Coefficient of Voc	-0.282%/°C
Temperature Coefficient of Isc	+0.05%/°C

MAXIMUN RATING

Operational Temperature (°C)	-40°C to +85°C
Maximum System Voltage (VDC)	1500
Max Series Fuse Rating (A)	25
Mechanical Load Front (Pa)	5,400
Mechanical Load Back (Pa)	2,400
MODULE PER CONTAINER	620 Pieces

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