

612



Guarantee on product material and workmanship



Linear power output warranty

**Black Frame / Bifacial Module
NB80M-G12PB-B(390~410)**

**Solar Cells With PERC Technology
High Efficiency MONO Solar Module**

The Module strengthens the module density, greatly improves the power and efficiency. At the same time, it has the advantages of flexible installation, cost saving, good system adaptation. High reliability, easy transportation, environmental protection and so on.



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

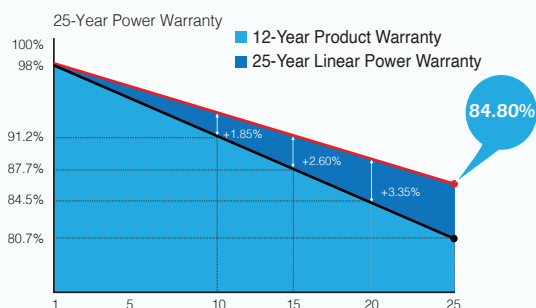


Ideal choice for utility and commercial scale projects by reduced BOS and improved ROI



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



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NB80M-G12PB-B

G12-80 Half-Cut Cell | MBB Mono PERC | Black Frame | Bifacial Module

ELECTRICAL PARAMETERS

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

Module Type:	NB80M-G12PB-		B390		B395		B400		B405		B410	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power - Pmax (W)	390	295	395	298	400	302	405	306	410	310		
Maximum Power Voltage - Vmpp (V)	33.8	31.8	34.0	32.0	34.2	32.2	34.4	32.5	34.6	32.8		
Maximum Power Current - Imp (A)	11.54	9.26	11.62	9.32	11.70	9.38	11.77	9.41	11.84	9.45		
Open Circuit Voltage - Voc (V)	40.8	38.4	41.0	38.6	41.2	38.8	41.4	38.9	41.6	39.1		
Short Circuit Current - Isc (A)	12.14	9.78	12.21	9.84	12.28	9.90	12.34	9.95	12.41	9.99		
Module Efficiency (%)	20.3		20.5		20.8		21.1		21.2			

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

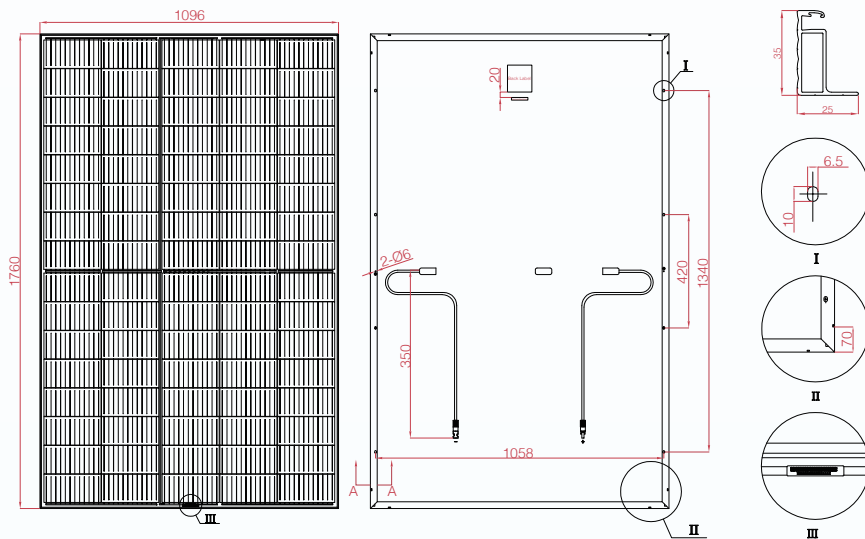
BIFACIAL REAR SIDE POWER GAIN

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

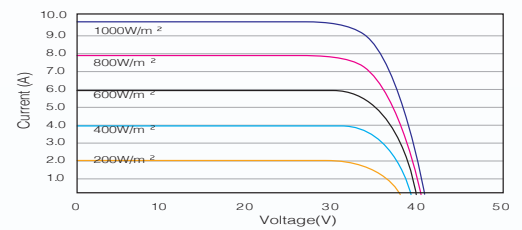
5% Maximum Power-PMAX (Wp)	409.5	420.0	420.0	425.25	430.5
5% Module Efficiency η m (%)	21.32	21.84	21.84	22.15	22.26
15% Maximum Power-PMAX (Wp)	448.5	460	460	465.75	471.5
15% Module Efficiency η m (%)	23.35	23.92	23.92	24.26	24.38
25% Maximum Power-PMAX (Wp)	487.5	500.0	500.0	506.25	512.5
25% Module Efficiency η m (%)	25.38	26.0	26.0	26.38	26.5

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.

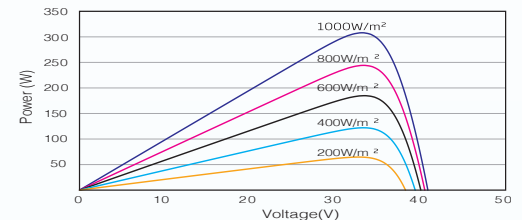
DIMENSIONS OF PV MODULE



I - V CURVES OF PV MODULE



P - V CURVES OF PV MODULE



MECHANICAL DATA

Solar Cells (mm)	210 x 105 Mono Bifacial PERC
Cell Orientation	80 Cells (10 x 8)
Module Dimensions (L*W*H)	1760 x 1096 x 35mm
Weight (Kg)	21.5 kg
Glass	3.2 mm coated tempered glass
Backsheet	Transparent
Frame	Silver anodized aluminum alloy
J-Box	IP68, 3 bypass diodes
Cables	Length 350mm, 1x4.0mm ²
Connector	MC4 and MC4 Compatible

TEMPERATURE RATINGS

NMOT	45°C (±2°C)
Temperature Coefficient of Pmax	-0.362%/°C
Temperature Coefficient of Voc	-0.262%/°C
Temperature Coefficient of Isc	+0.042%/°C

MAXIMUM RATING

PACKING CONFIGURATION

Module per box: 31 Pieces

MODULE PER CONTAINER

832 Pieces