



Ningbo Zhongyi New Energy Co., Ltd.

ZYxxxM10NHB-144

0~+5W
570~590W

TOPCon Mono-crystalline Bifacial Module

22.8%

High Module Conversion Efficiency



Key Features



Outstanding performance in weak-light conditions



Lower operating temperature



Half-cell and MBB design



Extended wind and snow load tests

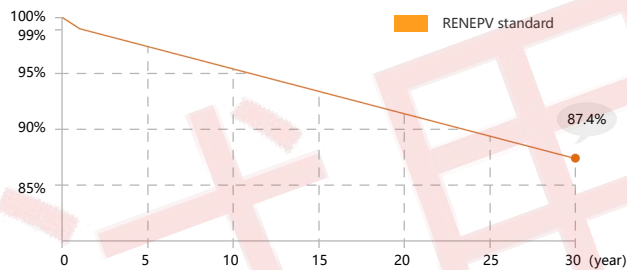


Withstanding harsh environment



Use scenario customization

Quality Certification



Materials and workmanship warranty



Linear performance warranty

First year power degradation < 1%
Annual degradation < 0.4%

Product Guarantee

ISO 9001:2015 Quality management systems
ISO 14001:2015 Environment management systems
ISO 45001:2018 Occupational health and safety management systems
IEC 61215/IEC 61730/IEC 61701/IEC 62716
TUV/CE/CQC/MCS/BIS/SASO/SGS/INMETRO



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570~590W

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Electrical Characteristics

Module Type		ZY570M10NHB-144		ZY575M10NHB-144		ZY580M10NHB-144		ZY585M10NHB-144		ZY590M10NHB-144	
Working Conditions		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power at STC/NMOT(Pmax)	W	570	426.4	575	430.1	580	433.8	585	437.58	590	441.32
Optimum Operating Voltage(Vmp)	V	43.34	40.31	43.50	40.46	43.68	40.62	43.83	40.85	44.01	40.93
Optimum Operating Current (Imp)	A	13.15	10.58	13.22	10.63	13.28	10.68	13.34	10.71	13.41	10.78
Open Circuit Voltage(Voc)±3%	V	51.48	47.88	51.66	48.04	51.84	48.21	51.44	47.84	51.61	48.00
Short Circuit Current(Isc)±3%	A	13.68	11.27	13.76	11.33	13.83	11.39	14.07	11.58	14.13	11.64
Module Efficiency	%	22.1		22.3		22.5		22.6		22.8	
Maximum System Voltage	V	1500 (DC)									
Maximum Series Fuse Rating	A	30									
Operating Module Temperature	℃	-40~+85									

STC: Irradiance 1000W/m², cell temperature 25°C, atmospheric quality AM1.5
NMOT: Irradiance 800W/m², ambient temperature 20°C, AM1.5, wind speed 1m/s

Mechanical Characteristics

Solar Cell (No.of cells)	N-Mono 182x182 72PCS
Dimensions	2278x1134x30 mm
Weight	30.2 kg(±3%)
Glass	2.0+2.0mm Low-iron tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 rated 3 bypass-diodes
Output Cables	4mm²/2x300mm or Customized length
Mechanical Load	5400Pa/2400Pa
Safety Rate	Class II (IEC)

Temperature Characteristics

Temperature Coefficient of Pmax	%/°C	-0.30
Temperature Coefficient of Voc	%/°C	-0.25
Temperature Coefficient of Isc	%/°C	+0.05
Nominal Module Operating Temperature	°C	45±2

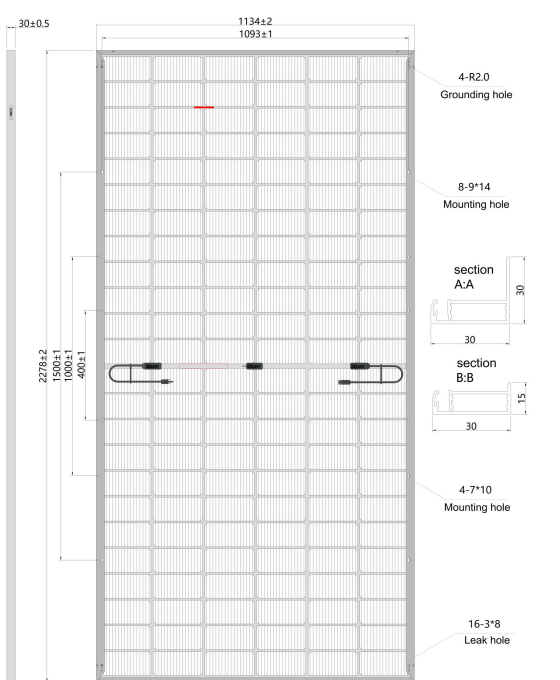
Different Backside Power Gain(585W)

Power Gain		5%	15%	25%
Maximum Power Pmp	W	614.3	672.8	731.3
Optimum Operating Voltage(Voc)	V	43.83	43.83	43.83
Optimum Operating Current(Imp)	A	14.01	15.35	16.68
Open Circuit Voltage (Voc)	V	51.44	51.44	51.44
Short Circuit Current(Imp)	A	15.12	16.55	17.99

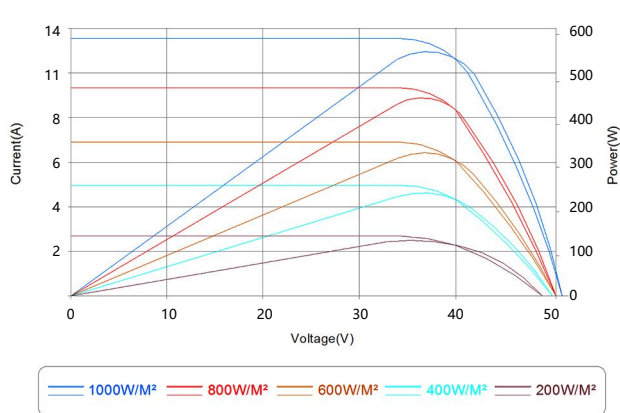
Packing Configuration

Container 40'HQ	37PCS/pallet	20pallet/40'HQ	740PCS/40'HQ
17.5m Land Truck	37PCS/pallet	28pallet/truck	1036PCS/truck

Assembly Drawing (mm)



I-V Curves(580W)



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