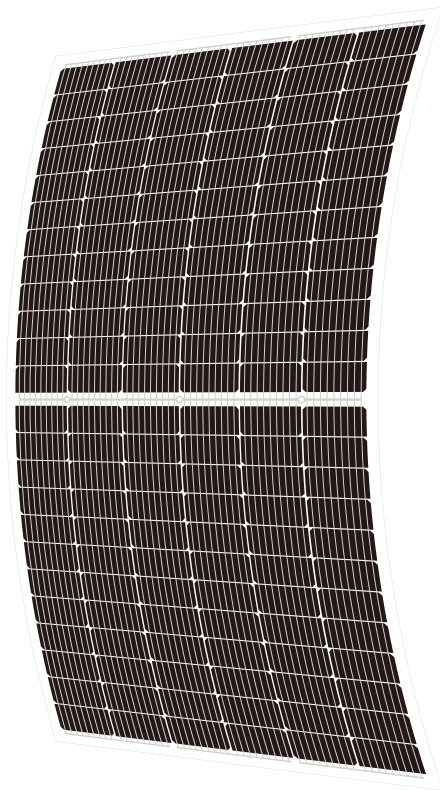
ZXM6-NHB144 Series

9BB HALF-CELL Monocrystalline PERC PV Module



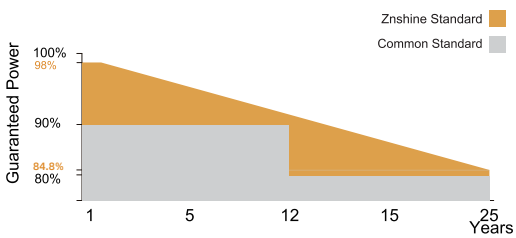
430-460W
POWER RANGE

20.74%
MAXIMUM EFFICIENCY

0.55%
YEARLY DEGRADATION

12 YEARS PRODUCT WARRANTY

25 YEARS OUTPUT GUARANTEE



*Please check the valid version of Limited Product Warranty which is officially released by ZNSHINE PV-TECH Co.,Ltd.

KEY FEATURES

Light-weight Design
70% lighter than conventional module by replacing the glass and optimizing the frame.

Flexibility
Industry-leading composite materials and unique encapsulation tech make lightweight strenghthen module flexible and fit perfectly with curved surfaces. Adapt to various application scenarios.

Anti PID
Ensured PID resistance through the quality control of cell manufacturing process and raw materials.

Better Weak Illumination Response
More power output in weak light condition, such as haze, cloudy, and early morning.

TIER 1
Global,Tier 1 bankable brand,with independently certified advanced automated manufacturing.

Adapt To Harsh Outdoor Environment
Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.

Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer.With the advanced production lines, the company boasts module capacity of 10GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

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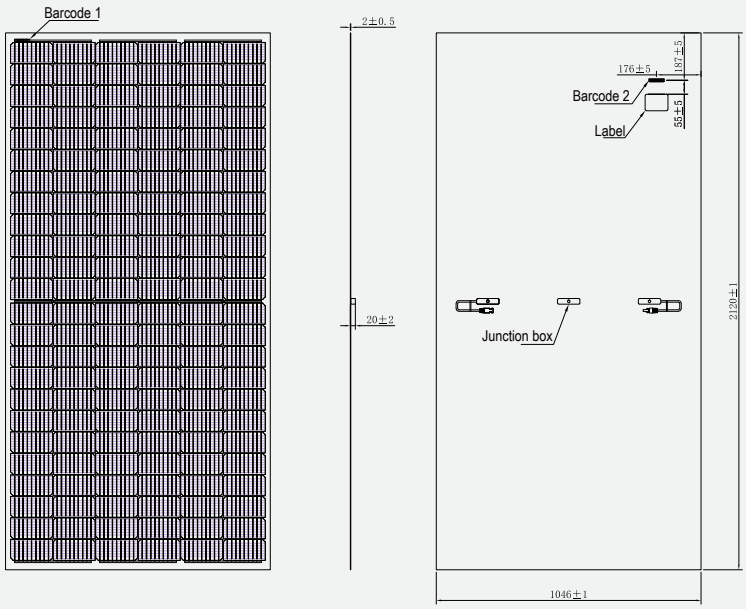
ZNSHINESOLAR

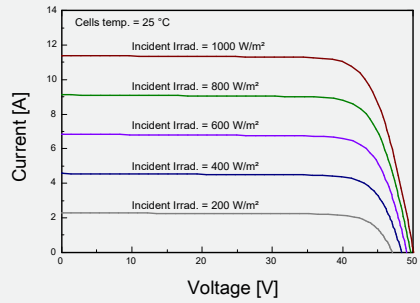
DIMENSIONS OF PV MODULE(mm)



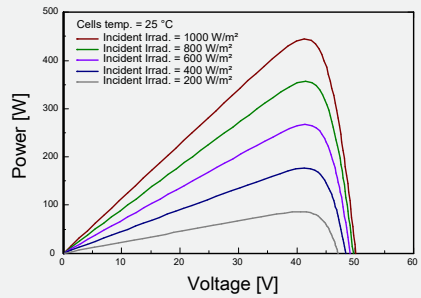
Front View Back View

*Remark: customized frame color and cable length available upon request

I-V CURVES OF PV MODULE(445W)



P-V CURVES OF PV MODULE(445W)



ELECTRICAL CHARACTERISTICS | STC*

Nominal Power Watt Pmax(W)*	430	435	440	445	450	455	460
Maximum Power Voltage Vmp(V)	40.60	40.80	41.00	41.20	41.40	41.60	41.80
Maximum Power Current Imp(A)	10.60	10.67	10.74	10.81	10.87	10.94	11.01
Open Circuit Voltage Voc(V)	49.50	49.70	49.90	50.10	50.30	50.50	50.70
Short Circuit Current Isc(A)	11.19	11.26	11.33	11.40	11.46	11.53	11.60
Module Efficiency (%)	19.39	19.62	19.84	20.07	20.29	20.52	20.74

*The data above is for reference only and the actual data is in accordance with the pratical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
*Measuring uncertainty: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2120×1046×2 mm (Frameless,JB Included)
Weight	5.0 ±1.0 kg
Backsheet	White
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

ELECTRICAL CHARACTERISTICS | NMOT

Maximum Power Pmax(Wp)	321.50	325.20	328.90	332.70	336.10	339.80	343.60
Maximum Power Voltage Vmpp(V)	37.90	38.10	38.20	38.40	38.60	38.80	39.00
Maximum Power Current Impp(A)	8.49	8.54	8.60	8.66	8.70	8.76	8.81
Open Circuit Voltage Voc(V)	46.20	46.40	46.60	46.70	46.90	47.10	47.30
Short Circuit Current Isc(A)	9.04	9.09	9.15	9.21	9.25	9.31	9.37

*NMOT:Irradiance 800W/m²,Ambient Temperature 20℃,AM 1.5,Wind Speed 1m/s

TEMPERATURE RATINGS

NMOT	44℃ ±2℃
Temperature coefficient of Pmax	-0.36%/℃
Temperature coefficient of Voc	-0.29%/℃
Temperature coefficient of Isc	0.05%/℃

WORKING CONDITIONS

Maximum system voltage	1500 V DC
Operating temperature	-40℃~+85℃
Maximum series fuse	20 A
Front Side Maximum Static Loading	Up to 5400 Pa
Rear Side Maximum Static Loading	Up to 2400 Pa

*Remark:Do not connect Fuse in Combiner Box with two or more strings in parallel connection
*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.
*Caution:Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

PACKAGING CONFIGURATION *

Piece/Box	46
Piece/Container(40'HQ)	920

*Customized packaging is available upon request.

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