

# ZXM7-SH108 Series

10BB HALF-CELL Black Monocrystalline PERC PV Module

Znshine Standard Common Standard 12 15 25 Years Please check the valid version of Limited Product Warranty which is officially released by ZNSHINE PV-TECH Co., Ltd.

390-410W

20.97%

0.55%

**POWER RANGE** 

MAXIMUM EFFICIENCY

**YEARLY DEGRADATION** 















IEC 61215/IEC 61730/IEC 61701/IEC 62716/UL6 1730

ISO 14001: Environmental Management System

ISO 9001: Quality Management System

ISO45001: Occupational Health and Safety Management System

\*As there are different certification requirements in different markets.please contact your local znshine sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

## **KEY FEATURES**



**Guaranteed Power** 

100%

90%

#### **Excellent Cells Efficiency**

MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.



### **Better Weak Illumination Response**

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



#### Anti PID

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



#### **Adapt To Harsh Outdoor Environment**

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



#### TIER 1

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



#### **Excellent Quality Managerment System**

Warranted reliability and stringent quality assurances well beyond certified requirements.

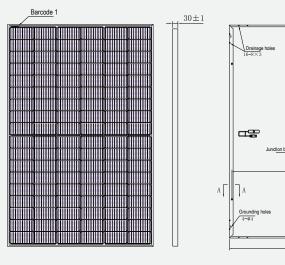


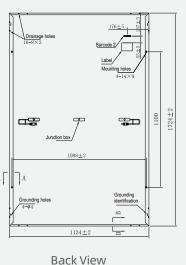
#### **Improved Aesthetics**

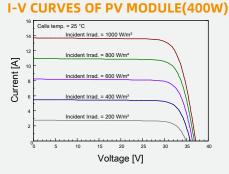
Compared to conventional modules, this full black modules have a more uniform appearance and superior aesthetics.



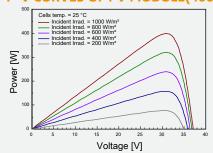
### **DIMENSIONS OF PV MODULE(mm)**







# P-V CURVES OF PV MODULE(400W)



#### **ELECTRICAL CHARACTERISTICS | STC\***

Front View

Nominal Power Watt Pmax(W)*	390	395	400	405	410
Maximum Power Voltage Vmp(V)	30.50	30.70	30.90	31.10	31.30
Maximum Power Current Imp(A)	12.79	12.87	12.95	13.03	13.10
Open Circuit Voltage Voc(V)	36.70	36.90	37.10	37.30	37.50
Short Circuit Current Isc(A)	13.56	13.63	13.70	13.77	13.84
Module Efficiency (%)	19.95	20.20	20.46	20.72	20.97

<sup>\*</sup>The data above is for reference only and the actual data is in accordance with the pratical testing

#### **MECHANICAL DATA**

Solar cells	Mono PERC
Cells orientation	108 (6×18)
Module dimension	1724×1134×30 mm (With Frame)
Weight	20.5±1.0 kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68, 3 diodes

Cables 4 mm<sup>2</sup>,350 mm (With Connectors)

Connectors\* MC4-compatible

# **ELECTRICAL CHARACTERISTICS | NMOT**

Maximum Power Pmax(Wp)	291.50	295.20	299.00	302.70	306.30
Maximum Power Voltage Vmpp(V)	28.30	28.50	28.70	28.90	29.10
Maximum Power Current Impp(A)	10.29	10.35	10.41	10.47	10.53
Open Circuit Voltage Voc(V)	34.30	34.50	34.70	34.80	35.00
Short Circuit Current Isc(A)	10.95	11.01	11.06	11.12	11.18

<sup>\*</sup>NMOT:Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s

#### PACKAGING CONFIGURATION \*

Piece/Box 36 Piece/Container(40'HQ) 936

\*Customized packaging is available upon request.

TEMPERATURE RATINGS*		WORKING CONDITIONS			
NMOT	44°C ±2°C	Maximum system voltage	1500 V DC		
Temperature coefficient of Pmax	-0.35%/℃	Operating temperature	-40°C~+85°C		
Temperature coefficient of Voc	-0.29%/℃	Maximum series fuse	25 A		
Temperature coefficient of Isc	0.05%/℃	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

<sup>\*</sup>Remark: customized frame color and cable length available upon request

<sup>\*</sup>STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5

<sup>\*</sup>Measuring uncertainity: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance

<sup>\*</sup>Please refer to regional datasheet for specified connector

<sup>\*</sup>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.

<sup>\*</sup>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.