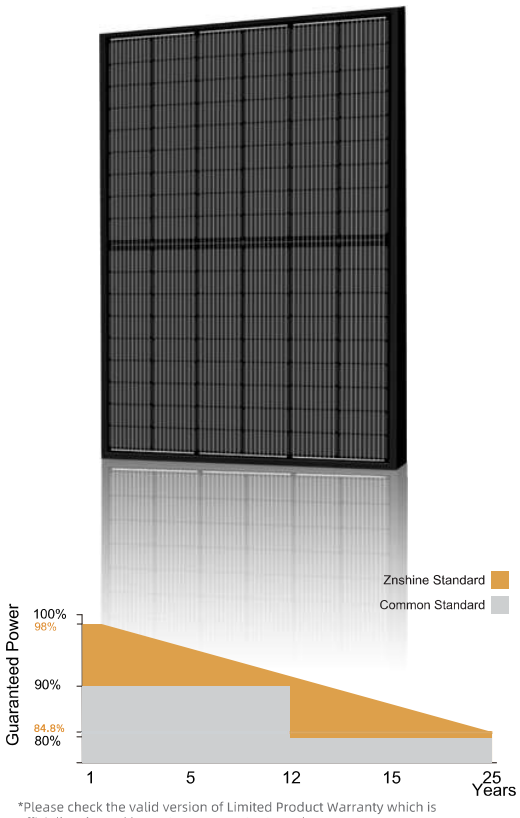
ZNSHINESOLAR

ZXM7-SH108 Series

10BB HALF-CELL Black Monocrystalline PERC PV Module



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

390-410W
POWER RANGE

21.00%
MAXIMUM EFFICIENCY

0.55%
YEARLY DEGRADATION

12 YEARS PRODUCT WARRANTY

25 YEARS OUTPUT GUARANTEE

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

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.

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 6GW. 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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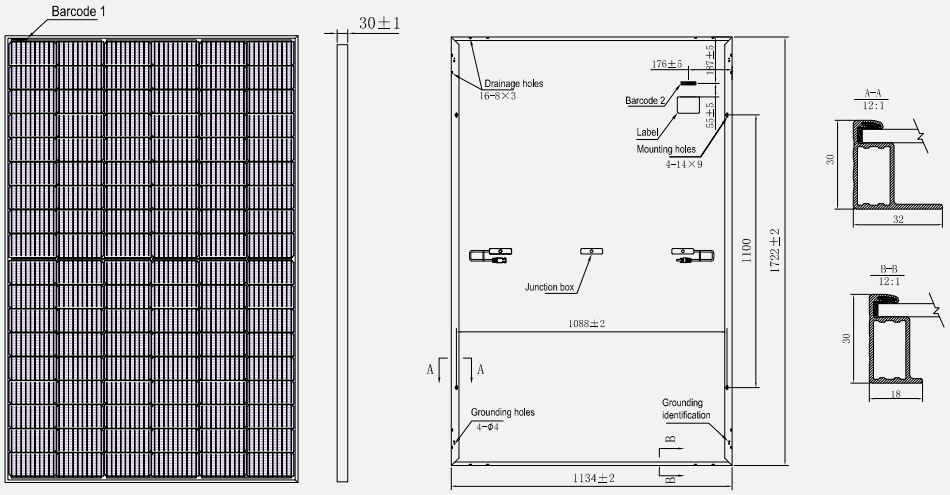
DIMENSIONS OF PV MODULE(mm)

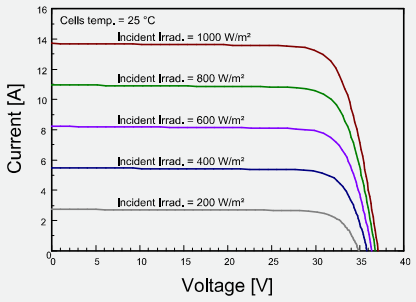


Front View

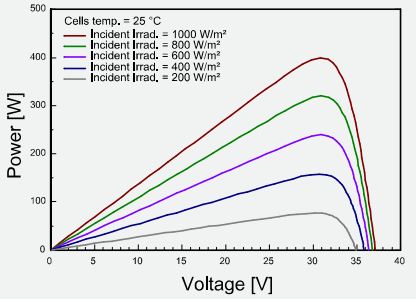
Back View

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

I-V CURVES OF PV MODULE(400W)



P-V CURVES OF PV MODULE(400W)



ELECTRICAL CHARACTERISTICS | STC*

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 (%)	19.97	20.23	20.48	20.74	21.00

*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 uncertainity: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	108 (6×18)
Module dimension	1722×1134×30 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 mm² ,350 mm (With Connectors)
Connectors*	MC4-compatible

*Please refer to regional datasheet for specified connector

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

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

TEMPERATURE RATINGS*

NMOT	44℃ ±2℃
Temperature coefficient of Pmax	-0.35%/℃
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	25 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	36
Piece/Container(40'HQ)	936

*Customized packaging is available upon request.