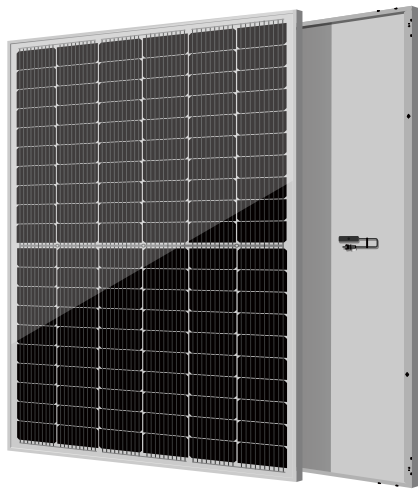




ZXM7-SH120 Series

10BB HALF-CELL Monocrystalline PERC PV Module

435-450W

POWER RANGE

20.85%

MAXIMUM EFFICIENCY

0.55%

YEARLY DEGRADATION



12 YEARS PRODUCT WARRANTY



25 YEARS OUTPUT GUARANTEE

12 years product warranty for general application
15 years product warranty for Rooftop PV system
25 years output warranty / 0.55% Annual Degradation over 25 years



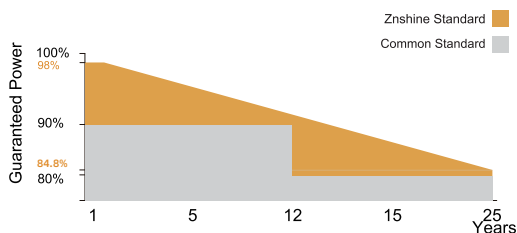
IEC 61215/IEC 61730

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.



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

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.



TIER 1

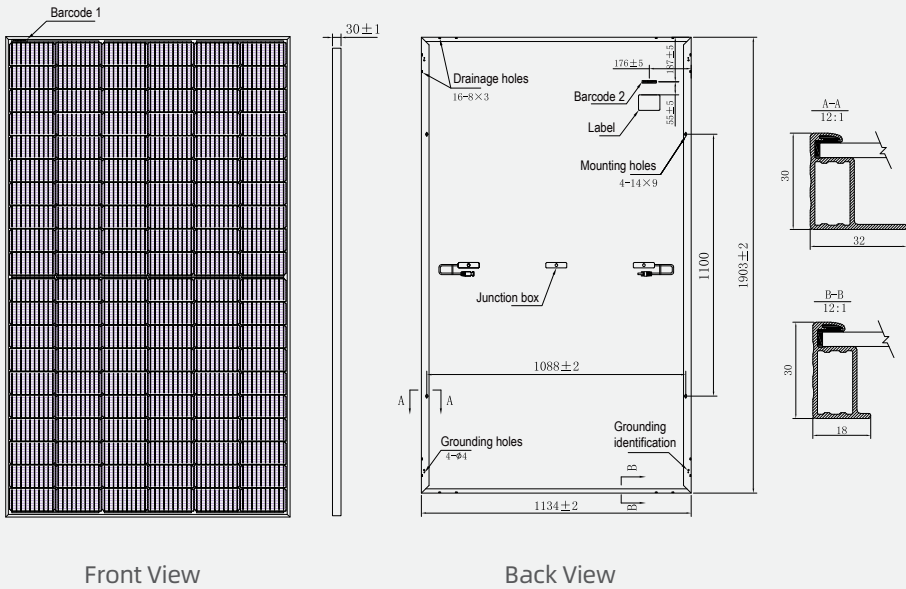
Global, Tier 1 bankable brand, with independently certified advanced automated manufacturing.



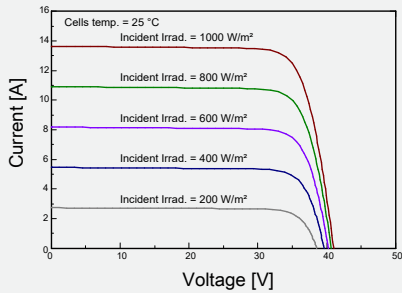
Excellent Quality Management System

Warranted reliability and stringent quality assurances well beyond certified requirements.

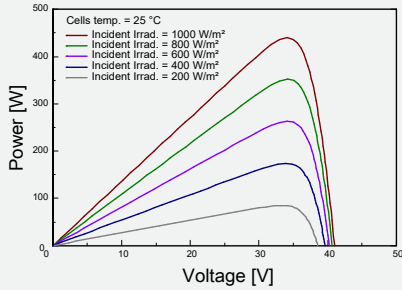
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(440W)



P-V CURVES OF PV MODULE(440W)



ELECTRICAL CHARACTERISTICS | STC*

Module Type	ZXM7 SH120-435/M	ZXM7 SH120-440/M	ZXM7 SH120-445/M	ZXM7 SH120-450/M
Nominal Power Watt Pmax(W)*	435±5	440±5	445±5	450±5
Maximum Power Voltage Vmp(V)	33.90	34.10	34.30	34.50
Maximum Power Current Imp(A)	12.84	12.91	12.98	13.05
Open Circuit Voltage Voc(V)	40.80	41.00	41.20	41.40
Short Circuit Current Isc(A)	13.57	13.64	13.71	13.78
Module Efficiency (%)	20.16	20.39	20.62	20.85

*The data above is for reference only and the actual data is in accordance with the practical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, 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	120 (6×20)
Module dimension	1903×1134×30 mm (With Frame)
Weight	23±1 kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction box	PV-XT1609Nxyz, IP 68, 3 diodes
Cables	H1Z2Z2-K 1×4,0mm²
Connectors*	PV-XT101.1 Suzhou Xtong Photovoltaic Technologies Co., Ltd. PV Modules manufactured in china

TEMPERATURE RATINGS WORKING CONDITIONS

Maximum Power Pmax(Wp)	325.20	328.90	332.60	336.40
Maximum Power Voltage Vmp(V)	31.50	31.70	31.90	32.10
Maximum Power Current Imp(A)	10.31	10.37	10.43	10.48
Open Circuit Voltage Voc(V)	38.10	38.30	38.50	38.70
Short Circuit Current Isc(A)	10.96	11.02	11.07	11.13

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

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	25 A
Temperature coefficient of Isc	0.05%/°C	Maximum load front/back	3600/1600 with safety factor 1.5
		Fire safety class	Class C
		Safety class	Class II

*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)	864

*Customized packaging is available upon request.