



ZXNR-MD120 Series

SMBB HALF-CELL N-Type Monofacial Double Glass
Monocrystalline PU Composite Framed PV Module

570-600W

POWER RANGE

23.23%

MAXIMUM EFFICIENCY

0.40%

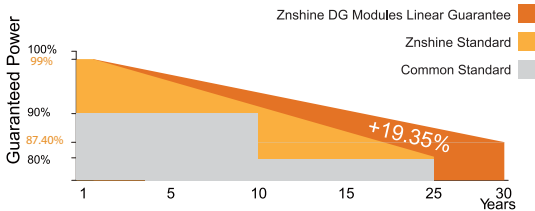
YEARLY DEGRADATION



12 YEARS PRODUCT WARRANTY



30 YEARS OUTPUT GUARANTEE



*Please check the Limited Warranty for Standard PV Modules which is officially released by ZNSHINE PV-TECH Co.,Ltd.



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 znsline sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

KEY FEATURES



Ultra Low Carbon

CO₂ emissions only 10% of the AL frame.



High Insulation

PU composite frame: no grounding, reduce PID risk, improve safety, maintenance free.



High Anti PID

PU composite frame, Super Anti-PID performance.



High Anti-Glare

PU composite frame, Super Anti-Glare performance.



Better Weak Illumination Response

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



Corrosion Resistant

Excellent humidity and heat resistance, anti-salt spray corrosion, suitable for offshore PV stations



TIER 1

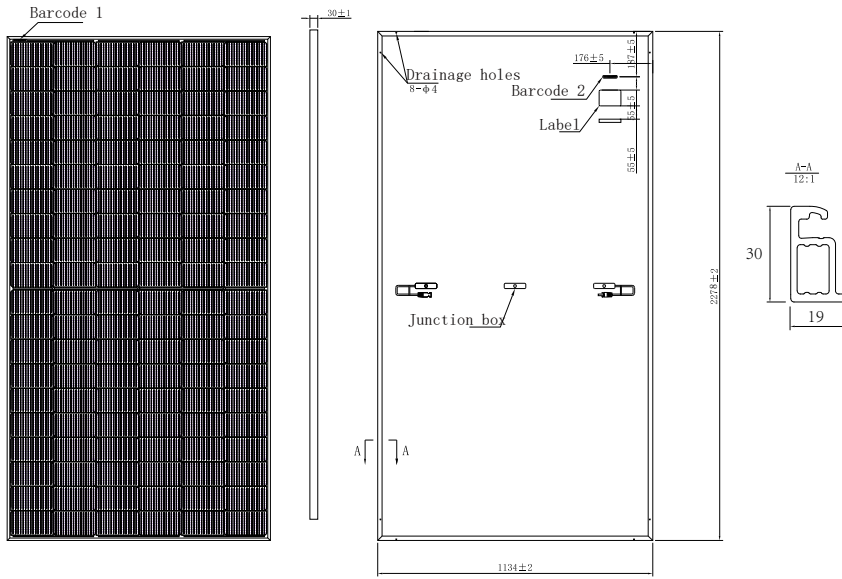
Global, Tier 1 bankable brand, with independently certified advanced automated manufacturing.



Graphene Coating Technology

The use of graphene coating layer to enhance light transmittance, self-cleaning, and anti-dust to increase solar module power and then increase the power generation capacity.

DIMENSIONS OF PV MODULE(mm)

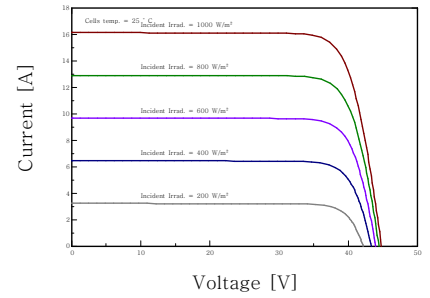


Front View

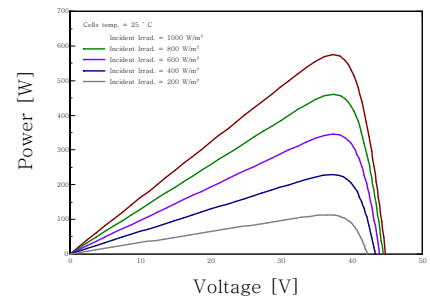
Back View

*Remark: customized frame color and cable length available upon request
only the classic 16BB assembly diagram is displayed here, other busbar can be customized according to requirements

I-V CURVES OF PV MODULE(575W)



P-V CURVES OF PV MODULE(575W)



ELECTRICAL CHARACTERISTICS | STC*

Nominal Power Watt Pmax(W)*	570	575	580	585	590	595	600
Maximum Power Voltage Vmp(V)	37.40	37.60	37.80	38.00	38.20	38.40	38.60
Maximum Power Current Imp(A)	15.25	15.30	15.35	15.40	15.45	15.50	15.55
Open Circuit Voltage Voc(V)	44.60	44.80	45.00	45.20	45.40	45.60	45.80
Short Circuit Current Isc(A)	16.11	16.16	16.22	16.27	16.32	16.38	16.43
Module Efficiency (%)	22.07	22.26	22.45	22.65	22.84	23.03	23.23

*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%, Power tolerance: ±3%
*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.
*All the electrical characteristics such as Im, Vm, Isc, Voc and FF are within ±5% tolerance.

MECHANICAL DATA

Solar cells	N-type Monocrystalline, Rectangular cells
Cells orientation	120 (6×20)
Module dimension	2278×1134×30 mm (With Frame)
Weight	32.0±1.0 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm ² , 1200mm(with connectors)
Connectors*	MC4-EVO2 compatible

*Please refer to regional datasheet for specified connector

ELECTRICAL CHARACTERISTICS | NMOT

Maximum Power Pmax(Wp)	433.20	436.80	440.60	444.30	448.00	451.70	455.40
Maximum Power Voltage Vmp(V)	35.10	35.30	35.40	35.60	35.80	36.00	36.20
Maximum Power Current Imp(A)	12.35	12.39	12.43	12.47	12.51	12.5	12.59
Open Circuit Voltage Voc(V)	42.20	42.40	42.60	42.80	43.00	43.20	43.40
Short Circuit Current Isc(A)	13.00	13.04	13.09	13.13	13.17	13.22	13.26

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

TEMPERATURE RATINGS

NMOT	44°C ±2°C
Temperature coefficient of Pmax	(-0.28±0.028)%/°C
Temperature coefficient of Voc	-0.23%/°C
Temperature coefficient of Isc	0.045%/°C

WORKING CONDITIONS

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
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)	720

*Customized packaging is available upon request.