

# ZXM7-SP144 Series

Znshinesolar 10BB HALF-CELL  
Monocrystalline PERC PV Module



520W | 525W | 530W | 535W | 540W



## Excellent cells efficiency

MBB technology decreases the distance between bus bars 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 morning



## Anti PID

Limited power degradation caused by PID effect is guaranteed under strict testing condition for mass production



## High wind and snow resistance

■ 5400 Pa snow load      ■ 2400 Pa wind load



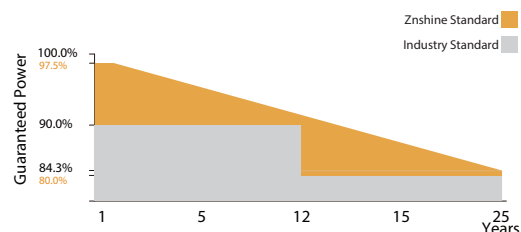
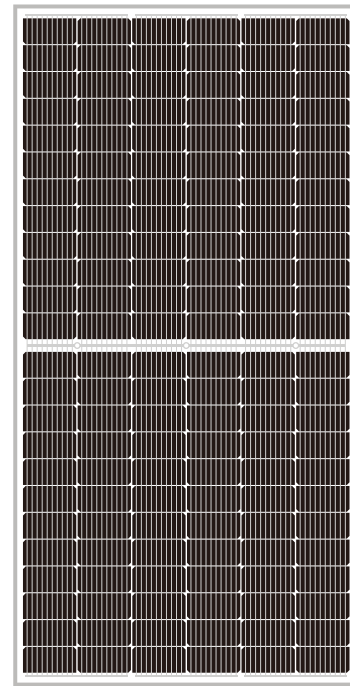
## 25 years power warranty

After 25years our solar panel keeps at least 80% of its initial power output



## Higher lifetime Power Yield

2.5% first year degradation, 0.55% linear degradation



12 years product warranty  
25 years output warranty



0.55% Annual Degradation  
over 25 years



Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer. With the state-of-the-art 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.

[www.znshinesolar.com](http://www.znshinesolar.com)

**ELECTRICAL CHARACTERISTICS | STC\***

|                                |       |       |       |       |       |
|--------------------------------|-------|-------|-------|-------|-------|
| Nominal Power Watt Pmax(W)*    | 520   | 525   | 530   | 535   | 540   |
| Power Output Tolerance Pmax(%) | 0~+3  | 0~+3  | 0~+3  | 0~+3  | 0~+3  |
| Maximum Power Voltage Vmp(V)   | 40.60 | 40.80 | 41.00 | 41.20 | 41.40 |
| Maximum Power Current Imp(A)   | 12.82 | 12.88 | 12.94 | 13.00 | 13.05 |
| Open Circuit Voltage Voc(V)    | 48.90 | 49.10 | 49.30 | 49.50 | 49.70 |
| Short Circuit Current Isc(A)   | 13.54 | 13.60 | 13.66 | 13.72 | 13.78 |
| Module Efficiency (%)          | 20.34 | 20.54 | 20.74 | 20.93 | 21.13 |

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

\*Measuring tolerance: ±3%

**ELECTRICAL CHARACTERISTICS | NMOT\***

|                               |        |        |        |        |        |
|-------------------------------|--------|--------|--------|--------|--------|
| Maximum Power Pmax(Wp)        | 388.90 | 392.60 | 396.30 | 400.00 | 403.50 |
| Maximum Power Voltage Vmpp(V) | 37.80  | 38.00  | 38.20  | 38.30  | 38.50  |
| Maximum Power Current Imp(A)  | 10.29  | 10.34  | 10.39  | 10.43  | 10.48  |
| Open Circuit Voltage Voc(V)   | 45.70  | 45.90  | 46.10  | 46.20  | 46.40  |
| Short Circuit Current Isc(A)  | 10.93  | 10.98  | 11.03  | 11.08  | 11.13  |

\*NMOT(Nominal module operating temperature):Irradiance 800W/m<sup>2</sup>,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s**MECHANICAL DATA**

|                   |                                                    |
|-------------------|----------------------------------------------------|
| Solar cells       | Mono PERC                                          |
| Cells orientation | 144 (6×24)                                         |
| Module dimension  | 2256×1133×40 mm(With Frame)                        |
| Weight            | 28.5 kg                                            |
| Glass             | 3.2mm, High Transmission, AR Coated Tempered Glass |
| Junction box      | IP 68, 3 diodes                                    |
| Cables            | 4 mm <sup>2</sup> ,350 mm                          |
| Connectors        | MC4-compatible                                     |

**TEMPERATURE RATINGS****WORKING CONDITIONS**

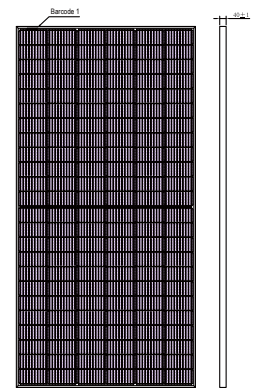
|                                 |           |                         |                   |
|---------------------------------|-----------|-------------------------|-------------------|
| NMOT                            | 44°C ±2°C | Maximum system voltage  | 1500 V DC         |
| Temperature coefficient 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(snow/wind) | 5400 Pa / 2400 Pa |

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

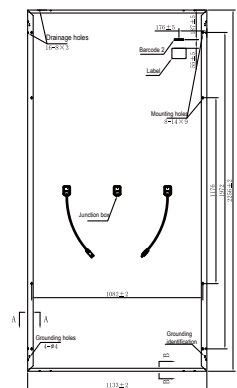
\*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

**PACKAGING CONFIGURATION**

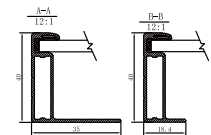
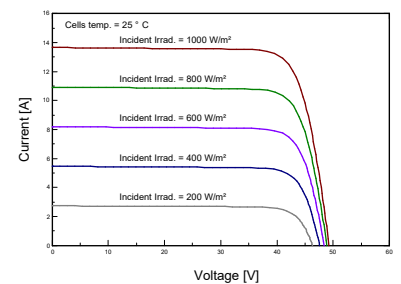
|                                                            |     |
|------------------------------------------------------------|-----|
| Piece/Box                                                  | 27  |
| Piece/Container <sup>(40'HQ)</sup>                         | 540 |
| Piece/Container <sup>(with additional small package)</sup> | /   |

**DIMENSIONS(MM)**

Front View



Back View

**I-V CURVES OF PV MODULE(530W)****P-V CURVES OF PV MODULE(530W)**