



SunshineSolar

www.solarixperu.pe

# HZS-M120 Monofacial Module

# 450W



PERC / Half-cut



Low temperature coefficient



PID resistance



Low BOS cost & LCOE



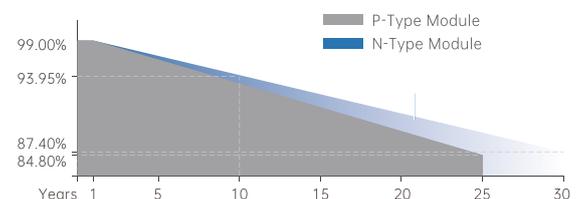
## Reliable Quality

- World-class manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO 9001, ISO 14001 and ISO 45001
- Long term reliability tests
- 3X100% EL inspection ensuring defect-free modules



## Performance Warranty

- 15 Years Product Warranty
- 30 Years Linear Power Warranty
- 1% Degradation in 1st year
- 0.4% Annual Degradation Over 30 Years



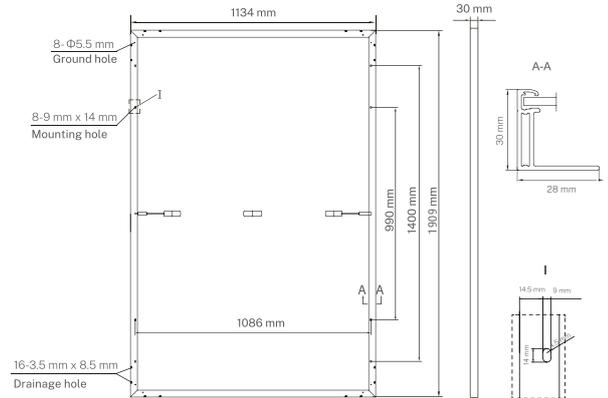
THE IDEAL SOLUTION FOR:



Commercial Rooftop  
Residential Rooftop

### Mechanical Characteristics

Solar Cell	mono-crystalline
No. of Cells	120 (6x10x2)
Dimensions	1909×1134×30mm
Weight	22.0kg
Frame	Anodized Aluminum Alloy
Glass	3.2mm coated tempered glass
Output Cables	4mm <sup>2</sup> , 300mm(including connector)
Junction Box	IP68 rated(3 bypass diodes)
Connector	MC Compatible
Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	20A
Mechanical Load	5400Pa(Front)/ 2400Pa(Back)



### Electrical Characteristics

<b>POWER CLASS</b>	<b>450</b>
Testing Condition	<b>STC</b>
Maximum Power(Pmax/W)	450
Operating Voltage(Vmp/V)	41.3
Operating Current(Imp/A)	10.90
Open-Circuit Voltage(Voc/V)	50.79
Short-Circuit Current(Isc/A)	11.66
Module Efficiency(%)	20.44

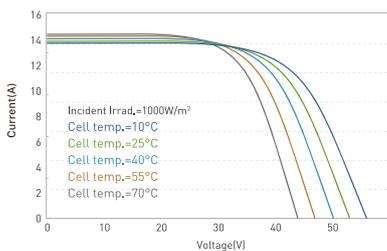
STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;  
 NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;  
 Tolerance of Pmax is within +/- 3%;

### Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	45 ± 2 °C
Temperature Coefficient of Pmax	-0.40 %/°C
Temperature Coefficient of Voc	-0.31 %/°C
Temperature Coefficient of Isc	0.051 %/°C

### Graphs

I-V Curve at different Temperature (450W)



I-V/P-V Curve at different Irradiation (450W)

