

HZS450M-120

MONOCRYSTALLINE SOLAR MODULE

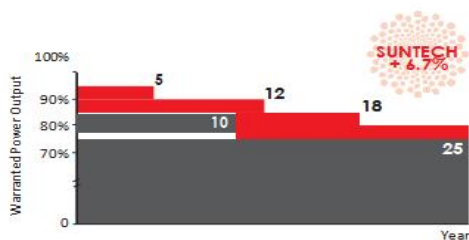


Trust Hangzhou Solar photoelectricity to Deliver Reliable Performance Over Time



Reliable IP67 Rated Junction Box

Industry-leading Warranty based on nominal power



Based on nominal power (P_{nom})
 25-year transferrable power output
 warranty: 5 years/95%, 12 years/90%,
 18 years/85%, 25 years/80%
 Warrants 6.7% more than the market
 standard over 25 years

Feature



Hangzhou Solar current sorting process

System output maximized by reducing mismatch losses upto 2% with modules sorted & packaged by amperage



High module conversion efficiency

Module efficiency up to 20.58% achieved through advanced cell technology and manufacturing capabilities



Self-cleaning & anti-reflective

Higher module efficiency from anti-reflective, hydrophobic layer with higher light absorption and minimal surface dust



Excellent weak light performance

Excellent performance under low light conditions



Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal)



Positive tolerance

Guaranteed positive tolerance of up to 5% delivers higher outputs reliably



Maximize customer benefits

Maximize the benefits of end customers



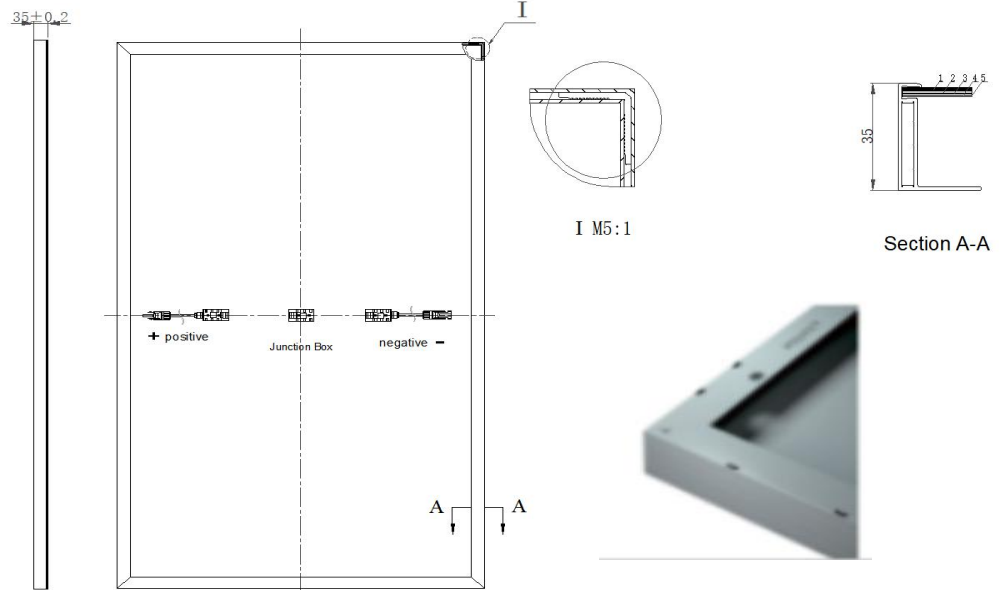
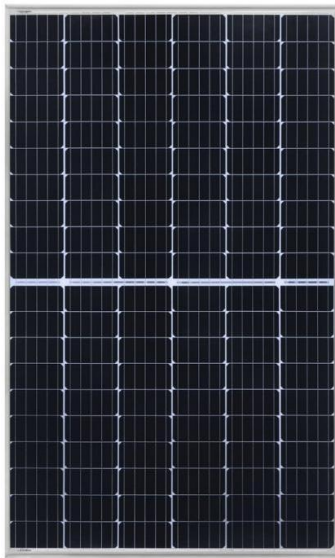
Strict quality control

Very strict quality control process and introduction of lean production mode

12 year appearance warranty



Engineering drawings.



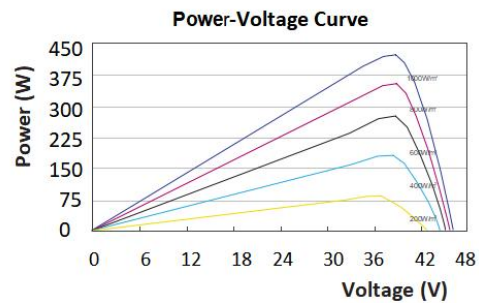
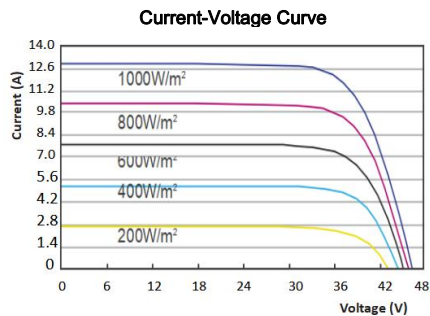
Mechanical Characteristics

Solar Cell	Monocrystalline silicon 182 × 91mm
No. of Cells	120 (6× 10x2)
Dimensions	1928 ×1134 ×35mm
Weight	21.5kg
Front Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy

Temperature Characteristics

Nominal Operating Cell Temperature	45±2°C
Temperature Coefficient of Pmax	-0.40 %/°C
Temperature Coefficient of Voc	-0.31 %/°C
Temperature Coefficient of Isc	0.051 %/°C

I-V Curves of pv module



Electrical Characteristics

STC	HZS450M-120	HZS430M-120
Maximum Power at STC (Pmax)	450W	430W
Optimum Operating Voltage (Vmp)	36.0V	31.80V
Optimum Operating Current (Imp)	12.5A	13.53A
Open Circuit Voltage (Voc)	43.2V	39.41V
Short Circuit Current (Isc)	13.4A	14.47A
Module Efficiency	20.58%	19.67%
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1500 V DC (IEC)	
Power Tolerance	0/+5 %	

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;

