

SZSSTH

RSM144H-182M-10BB 520-540W

High Efficiency Low LID Mono PERC with Half-cut Technology

Positive power tolerance (0 ~ +5W) guaranteed

High module conversion efficiency (up to 20.90%)

Slower power degradation enabled by Low LID Mono PERC technology:

first year <2.5%, 0.56% year 2-25

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

Complete System and Product Certifications

IEC 61215, IEC 61730

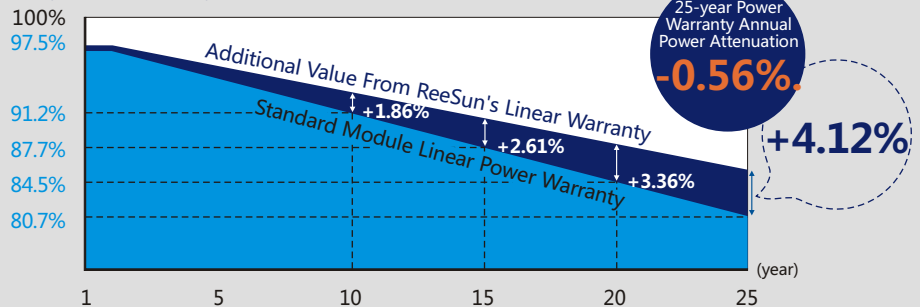
ISO 9001:2015: ISO Quality Management System

ISO 14001:2015: ISO Environment Management System

ISO 45001:2018 Occupational Health and Safety

* Specifications subject to technical changes and tests.
ReeSuna solar reserves the right of interpretation.

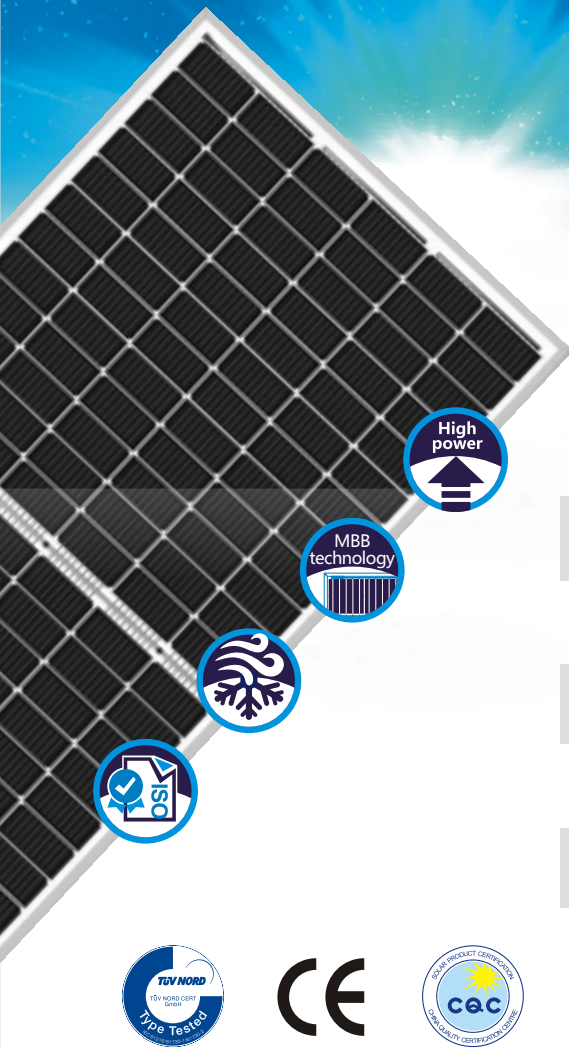
12-year Warranty for Materials and Processing; 25-year Warranty for Extra Linear Power Output.



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Shenzhen SZSSTH Company is a high-tech PV enterprise dedicated to research, development, production, sales & after sales service, mainly engaged in crystalline silicon solar cells, solar panels, photovoltaic systems, PV applications. Our product specifications are compatible with 158-210 size battery cells, adopting German TUV quality control standards, and realizing the whole process quality traceability from auxiliary materials to finished components.



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Electrical Characteristics

Electrical Characteristics

Test uncertainty for Pmax: ±3%

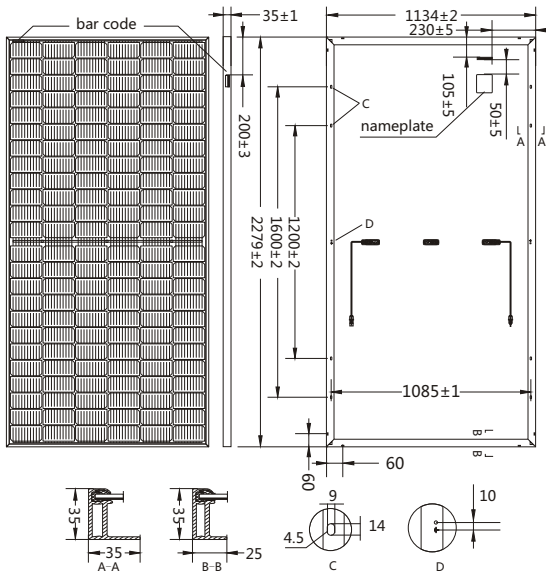
Model Number	520W		525W		530W		535W		540W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Testing Condition										
Maximum Power (Pmax/W)	520	387	525	391	530	394	535	398	540	402
Voltage at Maximum Power (Vmp/V)	40.47	37.63	40.61	37.78	40.74	37.92	40.88	38.05	41.01	38.19
Current at Maximum Power (Imp/A)	12.85	10.28	12.93	10.34	13.01	10.40	13.09	10.46	13.17	10.52
Open Circuit Voltage (Voc/V)	48.99	46.24	49.13	46.37	49.26	46.50	49.40	46.63	49.53	46.75
Short Circuit Current (Isc/A)	13.53	10.93	13.61	10.99	13.69	11.06	13.77	11.12	13.85	11.19
Module Efficiency (%)	20.13		20.32		20.51		20.71		20.90	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/5

Design (mm)

Mechanical & Operating Parameters



Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm ² , 300mm in length, length can be customized
Glass	Single glass 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	28.6kg
Dimension	2279×1134×35mm
Packaging	31pcs/pallet 620pcs/40'HC
Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0~+5 W
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	20A
Nominal Operating Cell Temperature	45±2°C
Safety Class	Class II
Fire Rating	Class C

Temperature Ratings (STC)

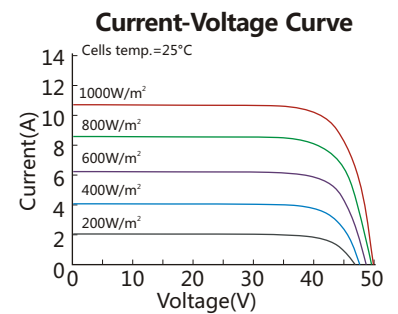
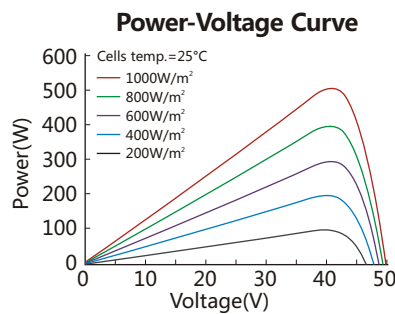
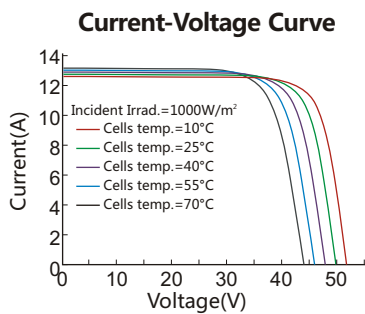
Mechanical Loading

Temperature Coefficient of Isc	+0.048%/°C
Temperature Coefficient of Voc	-0.270%/°C
Temperature Coefficient of Pmax	-0.350%/°C

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

I-V Curve (RSM144H-182M-530W)

Mechanical Loading



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