

SW(525W-550W)-144M

MODULE DATASHEET

Company Introduction

Anhui Sunway New Energy Tech co.,Ltd established in 2020, is a high-tech enterprise specialized in developing, designing and producing solar modules, we produce various kinds of solar modules with the following types of solar cell: 156.75mm*156.75mm, 158.7mm*158.75mm, 166mm*166mm, 182mm*182mm, 210mm*210mm. The power of our solar modules ranges from 270W poly to 590W mono half-cell, and all the modules is IEC 61215, IEC61730, CE, CB and PID free certified.



144pcs solar cells

182x91mm

Why choose SUNWAY

1. Variety kinds of modules to meet the diversified needs of our clients and the projects
2. High automatic production lines and advanced technology enables us to produce modules with consistent quality
3. Stringent supplier audit and control as well as the BOM quality test.
4. Automatic materials filtration and sorting plus spot check every batch as well as 100% two times EL test
5. One stop solution to all the solar needs of our clients.
6. Strong enterprise management system and reliable professional customer service.

Key Features



Special cutting soldering technology leads to lower hot spot risk and reduce cell to module loss and higher power output.



New cell string layout and split junction box makes Lower current and series resistance, helps minimize mismatch loss, internal power loss and shadow effect.



Lower thermal coefficient for greater energy production at high temperature.



Cell crack risk limited in small region, enhance the module reliability.



Special cell process ensures good performance under low irradiance conditions.



Selected encapsulating materials and stringent production process control ensures highly PID resistant.

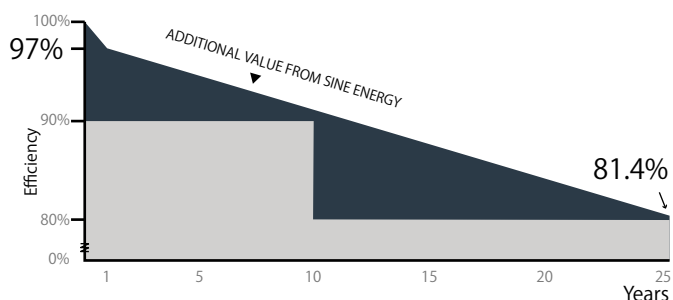


Excellent withstanding harsh environment, such as salt mist, sand mist as well as ammonia and etc.



Highly transparent self-cleaning glass brings additional yield and easy maintenance

Warranty



10 YEARS

Guarantee on product material and workmanship

25 YEARS

Linear power output warranty

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Electrical Specification (STC*)

	525W	530W	535W	540W	550W
Maximum Power -Pmax(W) :	525W	530W	535W	540W	550W
Maximum Power Voltage-Vmp(V):	40.58	40.73	40.88	41.03	41.18
Maximum Power Current-Imp(A):	12.95	13.02	13.10	13.17	13.24
Open Circuit Voltage -Voc(V):	49.08	49.23	49.38	49.53	49.68
Short Circuit Current-Isc(A):	13.39	13.46	13.54	13.63	13.71
Module Efficiency - η m(%):	20.25	20.45	20.64	20.83	21.02
Power Output Tolerance (W):					0~+5W

STC:Irradiance:1000W/m², Module Temperature:25°C,Air Mass:1.5

Electrical Specification (NOCT*)

	392W	396W	400W	404W	408W
Maximum Power -Pmax(W) :	392W	396W	400W	404W	408W
Maximum Power Voltage-Vmp(V):	37.34	37.49	37.64	37.79	37.94
Maximum Power Current-Imp(A):	10.51	10.57	10.64	10.70	10.77
Open Circuit Voltage -Voc(V):	45.11	45.26	45.41	45.56	45.71
Short Circuit Current-Isc(A):	11.14	11.22	11.29	11.37	11.44

NOCT:Irradiance:800W/m², Ambient Temperature:20°C,Air Mass:1.5,Wind Speed:1m/s

Mechanical Specifications:

Solar Cell Type:	Mono-crystalline 182x91mm
Number of Cells:	144pcs (24x6)
Module Size:	2288*1133*40mm
Weight:	29kg
Glass:	High transparency self-cleaning solar glass 3.2mm
Back Sheet:	White TPT
Frame:	Silver Anodized Aluminium Alloy
Junction Box:	IP68
Number of Diodes:	3pcs
Cable:	4.0mm ² 400/400mm
Connector:	MC4 Compatible
Wind/Snow Load:	2400pa/5400pa

Temperature Coefficient:

Nominal Operating Cell Temp(NOCT):	44±2°C
Temperature Coefficient of ISC:	0.060%/°C
Temperature Coefficient of VOC:	-0.30%/°C
Temperature Coefficient of Pmax:	-0.39%/°C

Maximum Ratings

Operational Temperature:	-40~85°C
Maximum System Voltage:	1500V DC(IEC)
Maximum Series Fuse Rating:	20A

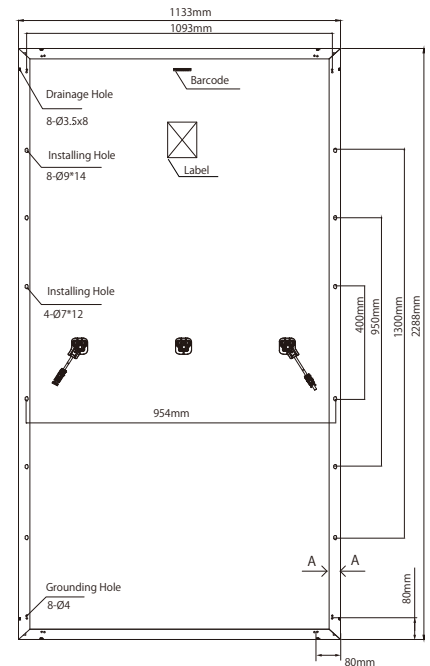
Optional:

Connector:	MC4 Original
Backsheet:	Black/Transparent TPT
Frame:	Black Anodized Aluminium Alloy

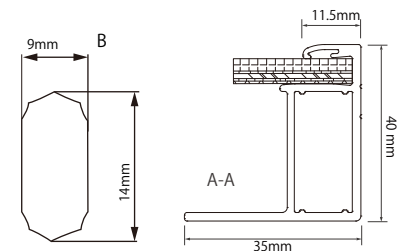
Packaging Information:

Number per Box:	27PCS
Number per 20GP:	200PCS
Number per 40HC:	540PCS

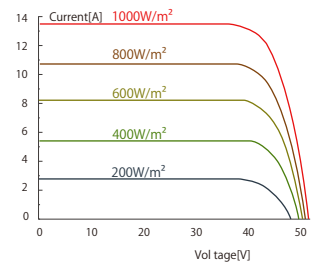
Engineering Drawings



Back View



Current-Voltage Curve (550W)



Power-Voltage Curve (550W)

