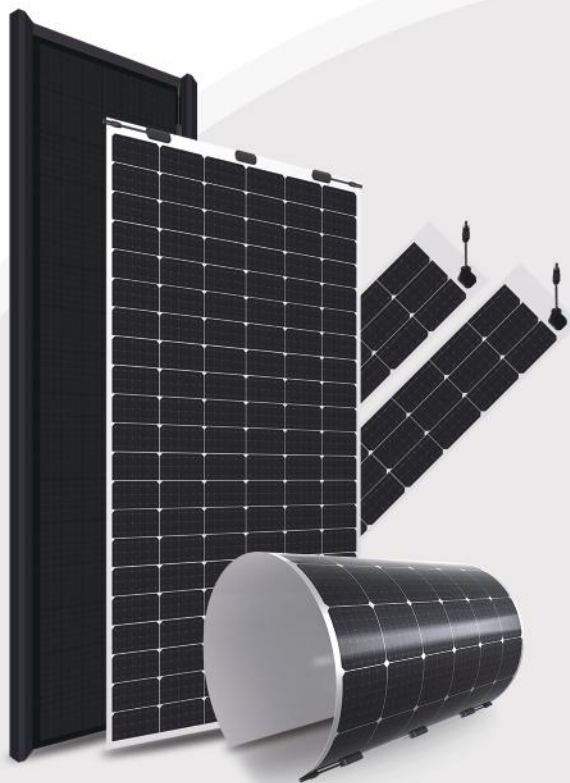


S Flex
Series

MORE FLEXIBLE, MORE POSSIBLE

S-FLEX Series · MWT High-Efficiency Back Contact Module





Light, Thin design

4.9kg weight, 1.7mm thickness, match various requirements for low-load projects



High Reliability

Conductive back sheet's 2D encapsulation avoids welding stress and micro crack, resulting lower degradation under multiple harsh testing conditions



Ultra Flexible

Ultra-thin silicon wafers with advanced organic polymer encapsulation materials, minimum bending radius reach 0.30m, fit all kinds of curved surface perfectly



Aesthetic Design

The design of busbar and tapping ribbon free makes module more aesthetic



BIPV Application

Further integration with building in terms of shape and installation



Lead Free

Eco-friendly PV design achieves lead-free MWT module without soldering materials



High Efficiency

Busbar-free design increases cell conversion efficiency, more power output can be achieved at low irradiance conditions



Convenient Installation

Easy installation and convenient transportation with lower cost



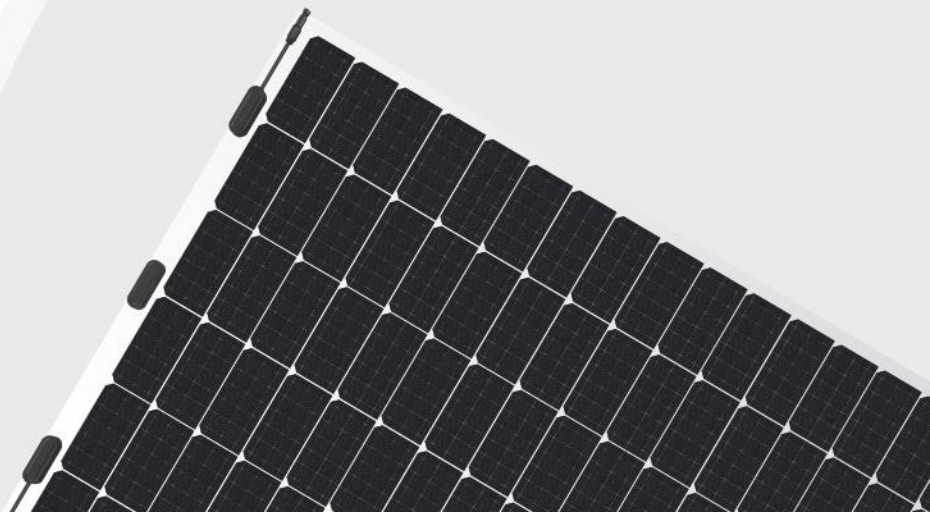
Superior Warranty

12 years quality assurance,
25 years performance warranty



Customizable

Customized design for different scenarios





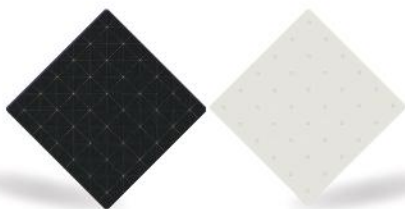
COMPANY PROFILE

Jiangsu Sunport Power Corp., Ltd. was founded in 2012 in China, and is committed to the research and development and manufacturing of MWT (Metal Wrap Through) high-efficiency back-contact cells and modules, providing customers with professional and comprehensive products, services and solutions.



MWT TECHNOLOGY

Metal Wrap Through(MWT) is an advanced back contact technology to increase solar cell and module efficiency by eliminating the busbar on the front side, and deploy both positive and negative electrodes on the rear side, contributing to the production of modules with high efficiency, high reliability, low cost, more beautiful appearance and environment friendliness.



High Efficiency

Increases 0.2% cell conversion efficiency

High Reliability

Avoid degradation resulting from welding stress and micro crack

Compatibility

Excellent compatibility with PERC, TOPCon, HJT



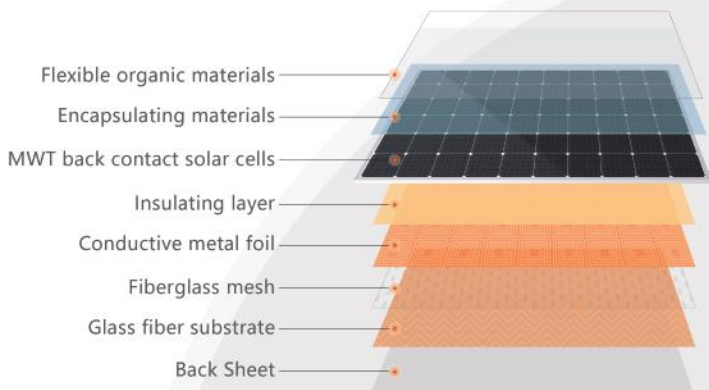
INNOVATIVE "CONDUCTIVE METAL FOIL"-LEAD FREE

S-FLEX Series module emphasizes eco-friendly PV design, achieving lead-free MWT module by abandoning soldering materials, greatly improving the weather resistance and reliability and maintaining lower working temperature and higher power output.

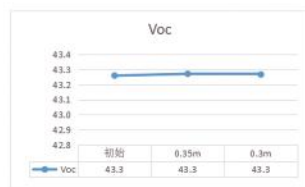
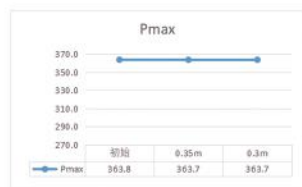
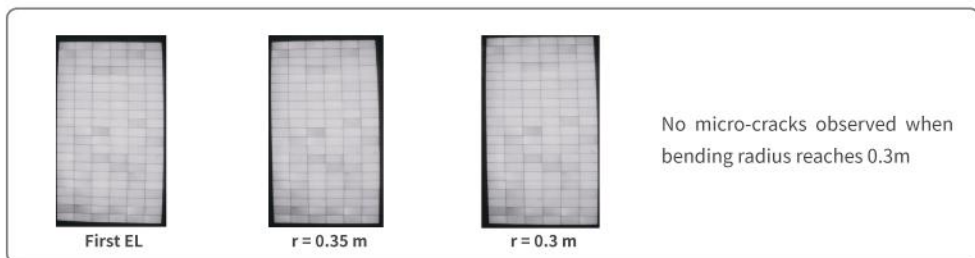
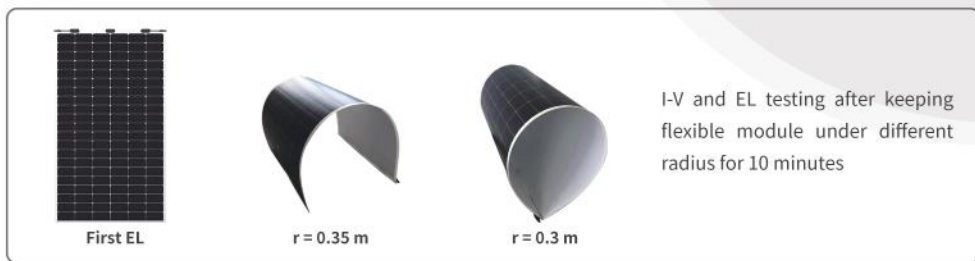


FIRE PREVENTION, DUST-PROOF, SAFETY AND STABILITY

- Fluorine front film, back film and conductive metal layer structure, good flexibility and water resistance.
- Excellent fire resistance, good layer adhesion and weather resistance.
- Unique front film structure design, not easy to accumulate dust, with its own cleaning effect, greatly reducing the frequency and cost of operation and maintenance.



LIGHT AND THIN - ULTRA FLEXIBLE



No measurable power output decline when bending radius reaches 0.3m

Reinsurance Coverage for 25 Years

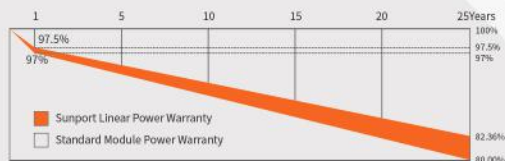
Comprehensive Qualifications & Certifications

LLOYD'S

12 year Quality Warranty

25 year Performance Warranty

- ★ ISO 9001: 2015 Quality Management System
- ★ ISO 14001: 2015 Environment Management System
- ★ ISO 45001: 2018 Occupation Health Safety Management System



※ 1st year degradation less than 2.5%, 25 years power output 82.36% guaranteed.



APPLICATION



Rooftop



Color Coated
Steel Rooftop



Low-load
Rooftop



Shaped
Rooftop



Carport



BIPV

S-FLEX Series module has the ability to challenge the load limit, and its ultra flexible module surface adapts to various complex environments such as different roofs and walls, and further integrate with buildings in terms of shape and installation for BIPV, C&I, residential and vehicle applications, always exhibiting high-efficiency and stable power output.

INSTALLATION FORM

Glue Adhesion

PVC/TPO Rooftop

Glue Adhesion/
Glue Adhesion+ Rivet Fix

Color Coated Steel Rooftop

Glue Adhesion +
Tie Strap

Shaped Rooftop

Glue Adhesion

Cement Roof

Glue Adhesion

Glass Wall

S-FLEX VS CONVENTIONAL MODULE

65%

Labor cost saved

50%

Mechanical costs saved

72%

Material cost saved

20%

Project progress improvement

S-FLEX 6·II Module

Electrical Characteristics at Standard Test Conditions(STC)

Spec/Model	Unit	SPP365QHE5	SPP370QHE5	SPP375QHE5	SPP380QHE5	SPP385QHE5
Max-Power(Pm)	W	365	370	375	380	385
Power Tolerance	W			0~+5		
Max-Power Voltage(Vm)	V	34.9	35.1	35.3	35.5	35.7
Max-Power Current(Im)	A	10.46	10.54	10.62	10.70	10.78
Open-Circuit Voltage(Voc)	V	42.4	42.6	42.8	43.0	43.2
Short-Circuit Current(Isc)	A	11.09	11.16	11.23	11.30	11.35
Module Efficiency(ηm)	%	20.7	21.0	21.2	21.5	21.8

STC: AM=1.5, Irradiation 1000W/m², Module Temperature 25°C

Electrical Characteristics at Nominal Module Operating Temperature (NMOT)

Spec/Model	Unit	SPP365QHE5	SPP370QHE5	SPP375QHE5	SPP380QHE5	SPP385QHE5
Max-Power(Pm)	W	274	278	282	286	290
Max-Power Voltage(Vm)	V	32.8	33.0	33.2	33.4	33.6
Max-Power Current(Im)	A	8.35	8.42	8.49	8.56	8.64
Open-Circuit Voltage(Voc)	V	39.9	40.1	40.3	40.5	40.7
Short-Circuit Current(Isc)	A	8.91	8.98	9.05	9.12	9.19

NMOT: Irradiation 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

Temperature Coefficient

Nominal Module Operating Temperature	43±2°C
Temperature coefficient of Pmax	-0.36%/°C
Temperature coefficient of Voc	-0.28%/°C
Temperature coefficient of Isc	0.06%/°C

Operating Conditions

Max. system voltage	DC1500V(IEC)
Max. series fuse rating	18A
Operating temperature range	-40°C~+85°C
Connector	MC4Compatible

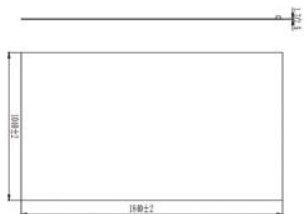
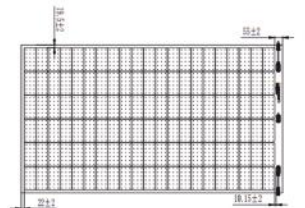
Mechanical Characteristics

Installation Module Dimension (L×W×H)	1840mmx1040mmx1.7mm/2.5mm
Actual Module Dimension(L×W)	1763mmx1001mm
Weight	4.9kg/6.3kg
Back material	Back Sheet(white)
Cell (quantity / material / type / dimensions)	126(21x6) / Mono / Half-cell
Encapsulant	POE
Frame	None
Junction box(Protection degree)	IP68
Cable (length/cross-section area)	Customizable / 4mm ²
Bending radius	0.3m

Package

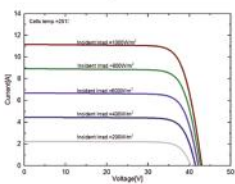
Container Size	Quantity(pcs)	Quantity(per pallet)
40' HQ	1104	46

Module Size

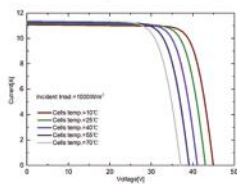


I-V Curve

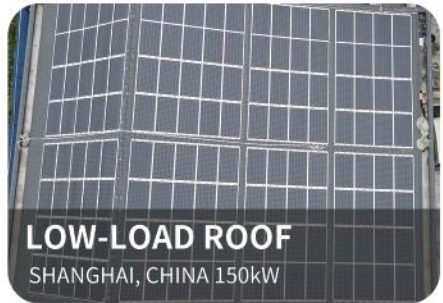
I-V Curves of SPP375QHE5 at different irradiance



I-V Curves of SPP375QHE5 at different cell temperature

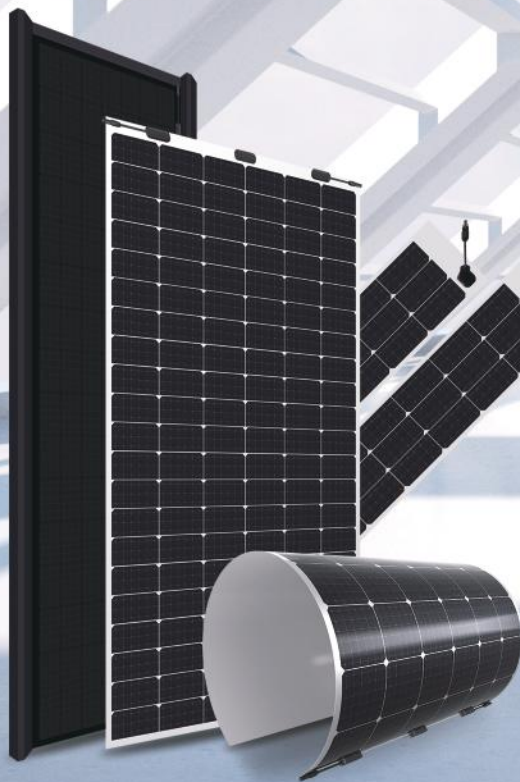


 **CASE STUDY**



S-FLEX Series

MWT High-Efficiency Back Contact Module



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