



SINOTEC
SOLAR

MADE IN US

ABOUT US

Since our founding in 2015, Sinotec Solar has risen to prominence as Southern California's leading renewable energy equipment manufacturer.

We are not just another name in the bustling solar industry; we represent the gold standard in American craftsmanship and sustainable energy solutions.

Conveniently located in the thriving City of Industry, California, Sinotec Solar is a bastion of innovation and quality, specializing in the production of high-caliber solar modules that are proudly manufactured in the United States.

560,000

Two manufacturer plants that have a total area of 560,000 square feet

1.5GW

The total production capacity is 1.5GW (2023)

150

Covering 150 acres





- + **American Excellence:** In addition to being made in the United States, Sinotec Solar's products carry the trusted seal of both Intertek's ETL and UL certifications, affirming our commitment to quality and safety.
- + **Versatile Energy Solutions:** Sinotec Solar offers a comprehensive range of panels with capacities from 335W to 595W, available in both Mono-Facial and Bi-Facial designs to suit various energy needs.
- + **Future-Ready Manufacturing:** Our state-of-the-art production line is designed for adaptability, seamlessly integrating with both current and emerging technologies such as PERC, TopCon, and HJT.
- + **Industry-Leading Warranty:** Invest with confidence—every Sinotec Solar product is backed by a robust 25-year linear performance and product warranty.



IN CA



SINOTEC
SOLAR

MADE CALIFORNIA



BI-FACIAL MODULE

144 Half Cut Cell Mono Bi-Facial Modules 520W–555W



Anti-reflection coating and Self-cleaning glass



Special cutting and soldering technology leads to low hotspot risk



Selected encapsulating material and stringent production process control ensure the product is highly PID resistant and snail trails free



Sand blowing test, salt mist test and ammonia test passed to endure harsh environments



Optimized system performance due to module level current sorting



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

SINOTEC
SOLAR



Max. Power (Pmax)

555W

Module Efficiency

21.50%

- ISO 9001 Quality management system cert and ISO 14001 Environmental management system certificate
- ISO 45001 International standards for occupational health and safety
- IEC 61215 and IEC 61730 A level certification
-

⊕ ELECTRICAL CHARACTERISTICS AT STC

Type		ISM7-SHDB144-520/M		ISM7-SHDB144-525/M		ISM7-SHDB144-530/M		ISM7-SHDB144-535/M
		STC	NOCT	STC	NOCT	STC	NOCT	STC
Max. Power (Pmax)	W	520	392	525	396	530	400	535
Opt. Operating Current (Imp)	A	12.74	10.39	12.81	10.45	12.87	10.51	12.93
Opt. Operating Voltage (Vmp)	V	40.85	37.72	41.02	37.92	41.20	38.09	41.37
Short Circuit Current (Isc)	A	13.72	11.11	13.80	11.19	13.87	11.26	13.94
Open Circuit Voltage (Voc)	V	49.24	46.55	49.44	46.75	49.63	46.96	49.83
Module Efficiency		20.2%		20.4%		20.6%		20.8%
Module Power Tolerance								
Operating Temperature								
Max. System Voltage								
Max. Nominal Fuse Current								
Application Level								
STC								Irradiance 1000W/m ²
NOCT								Irradiance 800W/m ² , Module temperature 45°C

TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature	41±2 °C
Temperature Coefficient (Pmax)	-0.35%/°C
Temperature Coefficient (Voc)	-0.27%/°C
Temperature Coefficient (Isc)	+0.045%/°C

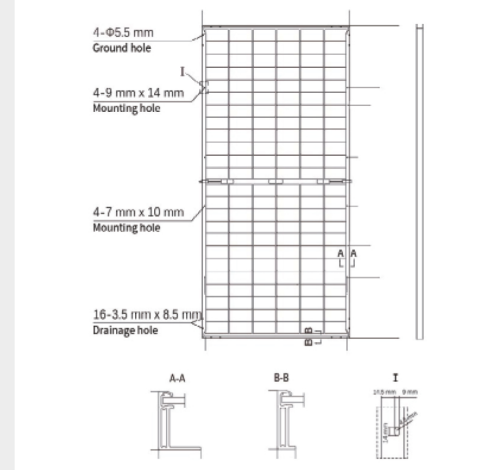
PACKAGING SPECIFICATION

Container	40HQ
Module quantity per pallet	31
Pallet quantity per container	20
Module quantity per container	620

MECHANICAL DATA

Dimensions	2278 x 1134 x 35 mm
Weight	28.5 ± 0.5kg
Module composition	144 (6*24)
Front glass thickness	3.2 mm high transparency,AR coating,thermal reinforced glass
Frame Material	Aluminum,silver anodized
J-Box	IP68,3 diodes
Cable	Portrait:300 mm ; Landscape:1400 mm ,4 mm ² /12 AWG
Connector	MC Compatible / MC4-EVO2 (optional)

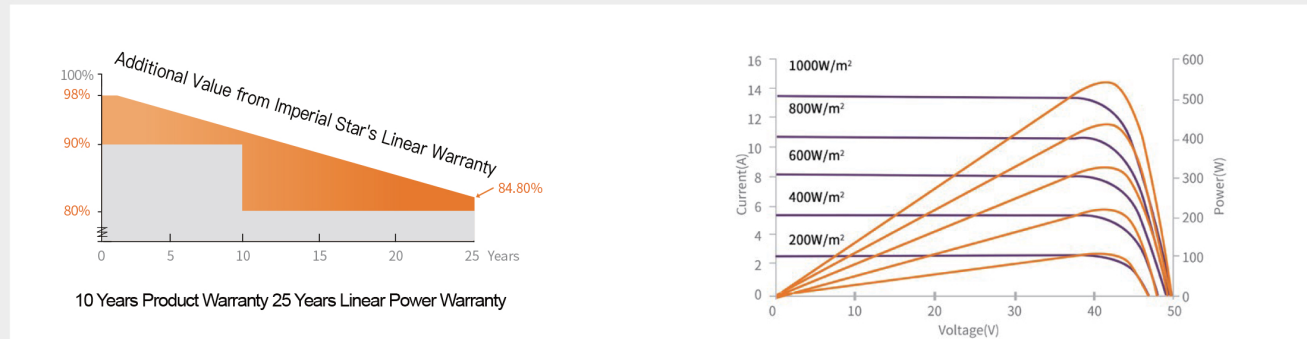
ENGINEERING DRAWINGS



PERFORMANCE UNDER LOW IRRADIATION

industry-leading performance under low irradiance conditions. The module efficiency of irradiance 200W/m is above 96.5% of the irradiance 1000W/m module efficiency.

I-V CURVES OF PV MODULE



I7-SHDB144-535/M		ISM7-SHDB144-540/M		ISM7-SHDB144-545/M		ISM7-SHDB144-550/M		ISM7-SHDB144-555/M	
TC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
35	404	540	408	545	412	550	416	555	420
94	10.56	13.00	10.61	13.06	10.67	13.12	10.73	13.18	10.79
37	38.27	41.57	38.45	41.76	38.64	41.95	38.81	42.14	38.96
95	11.33	14.02	11.41	14.09	11.48	14.47	11.56	14.24	11.63
.83	47.15	50.02	47.36	50.21	47.55	50.41	47.74	50.59	47.93
20.8%		21.0%		21.1%		21.3%		21.5%	

± 3%

-40°C ~ +85°C

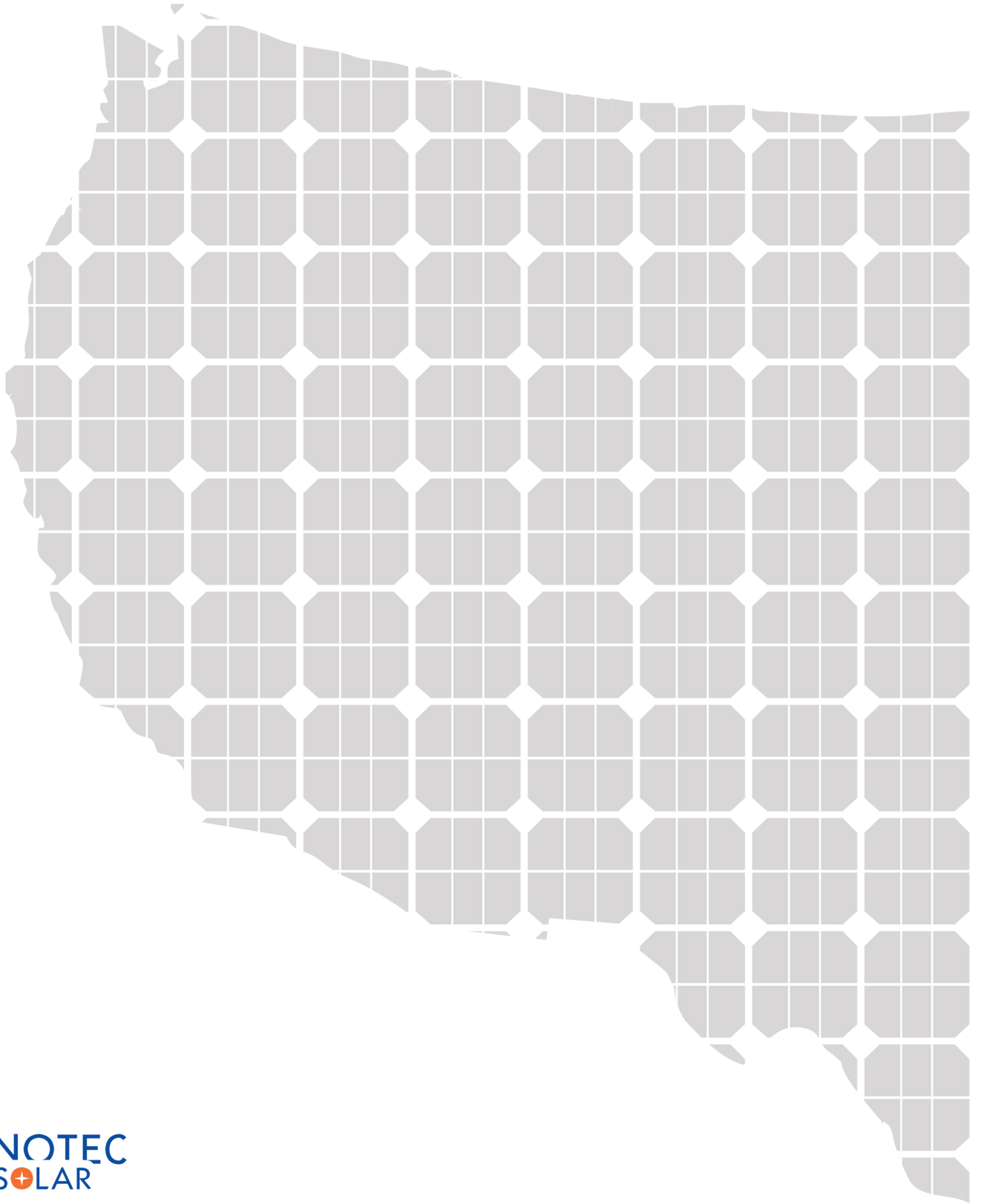
1500VDC(IEC)

30A

A

²,Module temperature 25°C,AM 1.5

temperature 20°C,AM 1.5,Wind speed 1m/s



SINOTEC
SOLAR

www.sinotecsolar.com