

Atlas

P-Type 182MM Bifacial Transparent Backsheet Module 520-555W



Lightweight Quality

Experience the freedom of lightness with our transparent backsheet model



Superior Hail Resistance

Superior hail resistance for a solar solution that withstands the harshest weather conditions



Customizable All-Black Modules

Elevate the aesthetics of your solar installation with our customizable all-black modules



Customized Configuration

Tailor your solar solution to fit any scenario with our range of 5 size options with various of No. of cells

Pmax:

555W

Power range:

520-555W

Efficiency:

21.5%

Warranty:

25 years

Annual degradation:

0.55%

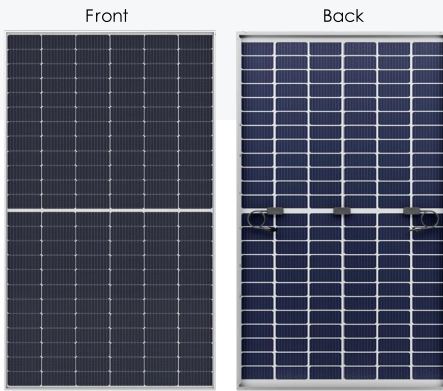
Product Certification



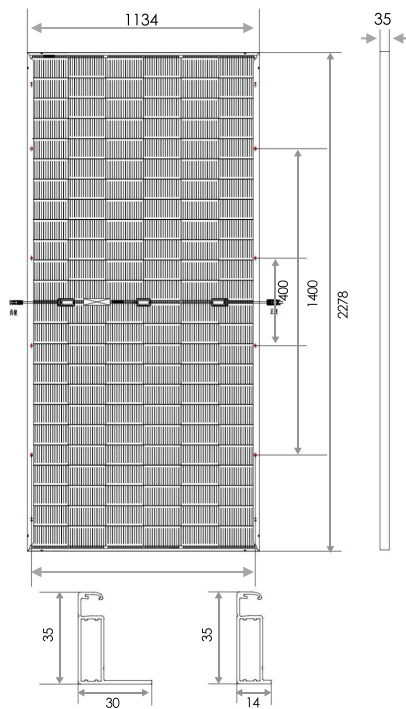
Reliably Built.

Imperial Star is a solar manufacturer committed to empowering PV excellence in America. With a rich, 10-year manufacturing legacy, Imperial Star delivers 6 GW of PV module capacity through its integrated and dependable supply chain by 2024.



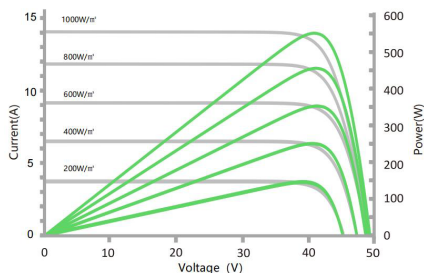


Engineering Drawing



- 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 trail-free
- Optimized system performance due to module level current sorting
- Highly transparent self-cleaning glass brings additional yield and easy maintenance

I-V Curves Of PV Module


555W

Maximum Power Output

21.5%

Module Efficiency

25 Year

Power Output Warranty

12 Year

Product Warranty

Item		ISM7-SHDB144-520/M ISM7-SHDB144-525/M ISM7-SHDB144-530/M ISM7-SHDB144-535/M ISM7-SHDB144-540/M ISM7-SHDB144-545/M ISM7-SHDB144-550/M ISM7-SHDB144-555/M															
		STC 520	NOTC 389	STC 525	NOTC 392.4	STC 530	NOTC 396.2	STC 535	NOTC 399.9	STC 540	NOTC 403.6	STC 545	NOTC 407.4	STC 550	NOTC 411.1	STC 555	NOTC 414.8
Max. Power (Pmax)	W	520	389	525	392.4	530	396.2	535	399.9	540	403.6	545	407.4	550	411.1	555	414.8
Opt. Operating Current (Imp)	A	12.66	10.14	12.74	10.21	12.81	10.26	12.88	10.32	12.96	10.38	13.03	10.44	13.1	10.49	13.18	10.56
Opt. Operating Voltage (Vmp)	V	41.09	38.30	41.24	38.48	41.39	38.62	41.54	38.76	41.69	38.90	41.84	39.04	41.99	39.18	42.14	39.32
Short Circuit Current (Isc)	A	13.63	10.99	13.69	11.04	13.75	11.09	13.81	11.14	13.87	11.19	13.93	11.23	13.99	11.28	14.05	11.33
Open Circuit Voltage (Voc)	V	48.88	46.00	49.03	46.10	49.18	46.24	49.33	46.38	49.48	46.52	49.63	46.66	49.78	46.80	49.93	46.94
Module Efficiency		20.2%		20.3%		20.5%		20.7%		20.9%		21.1%		21.3%		21.5%	
Module Power Tolerance		0~+3%															
Operating Temperature		-40°C~+85°C															
Max. System Voltage		1500VDC (IEC)															
Max. Nominal Fuse Current		30A															
Application Level		A															
STC		Irradiance 1000W/m², Module temperature 25°C, AM1.5															
NOTC		Irradiance 800W/m², Module temperature 20°C, AM 1.5, Wind speed 1m/s															

Temperature Characteristics

Nominal Operating Cell Temperature	45±2°C
Temperature Coefficient (Pmax)	-0.35%/°C
Temperature Coefficient (Voc)	-0.27%/°C
Temperature Coefficient (Isc)	+0.045%/°C

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: 1400mm, 4mm² / 12AWG
Connector	MC Compatible / MC4-EV02 (optional)

Packaging Specifications

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

Performance under low irradiation

Industry-leading performance under low irradiance conditions. The module efficiency of irradiance 200W/m² is above 96.5% of the irradiance 1000W/m² module efficiency.

Product Certification

ISO 9001: Quality management system certification	CEC
ISO 14001: Environmental management system certificate	TUV
ISO 45001: International standards for occupational health and safety	CE
IEC 61215: Standards for durability	UL
IEC 61730: Standards for safety operation	



Warranty

