

Atlas N

N-Type 182MM Bifacial Double Glass Module 555-590W



30% Bifacial Power Gain

Delivers an impressive 30% increase in power generation with an 80±5% bifacial rate, harnessing energy from both sides



Peak Efficiency 22.8%

Achieves a leading efficiency rate of 22.8%, maximizing solar power conversion



Advanced Cell Technology

Significant reductions in Light-Induced Degradation (LID) and Light and Elevated Temperature Induced Degradation (LETID), maintaining peak performance



Customized Configuration

Provides versatility with 5 size options to meet residential, commercial, or industrial solar energy needs

Pmax:

590W

Power range:

555-590W

Efficiency:

22.8%

Warranty:

30 years

Annual degradation:

0.40%

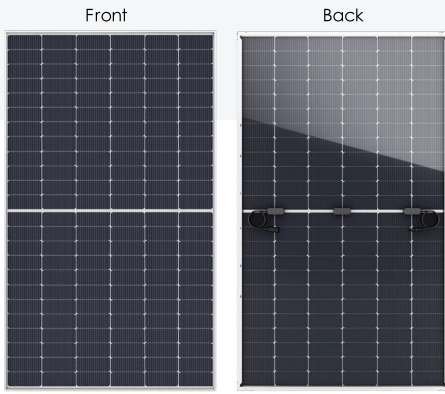
Product Certification



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.





590W

Maximum Power Output

22.8%

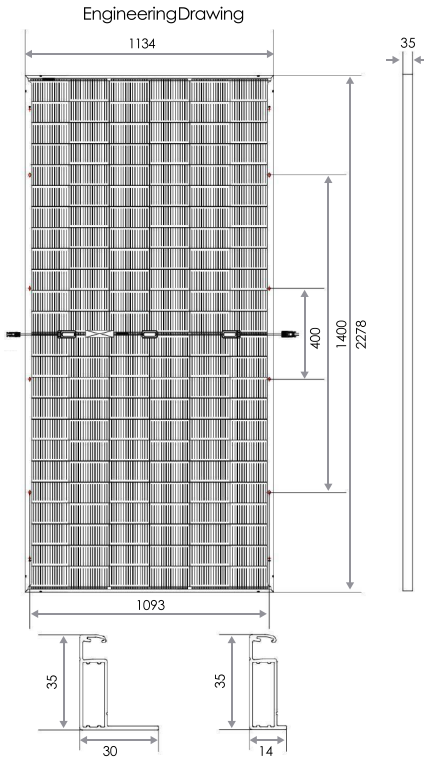
Module Efficiency

30 Year

Power Output Warranty

12 Year

Product Warranty



- 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

Item	ISN7-UHSB144-555/M ISN7-UHSB144-560/M ISN7-UHSB144-565/M ISN7-UHSB144-570/M ISN7-UHSB144-575/M ISN7-UHSB144-580/M ISN7-UHSB144-585/M ISN7-UHSB144-590/M																
		STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC		
Max. Power (Pmax)	W	555	415	560	419	565	422	570	426	575	430	580	434	585	437	590	441
Opt. Operating Current (Imp)	A	13.19	10.57	13.24	10.61	13.30	10.65	13.35	10.69	13.41	10.74	13.46	10.78	13.52	10.83	13.57	10.87
Opt. Operating Voltage (Vmp)	V	42.1	39.3	42.3	39.5	42.5	39.7	42.7	39.8	42.9	40.0	43.1	40.2	43.3	40.4	43.5	40.6
Short Circuit Current (Isc)	A	13.95	11.25	14.01	11.30	14.07	11.35	14.13	11.40	14.19	11.44	14.25	11.49	14.31	11.54	14.37	11.59
Open Circuit Voltage (Voc)	V	50.5	47.5	50.7	47.7	50.9	47.9	51.1	48.0	51.3	48.2	51.5	48.4	51.7	48.6	51.9	48.8
Module Efficiency		21.5%		21.7%		21.9%		22.1%		22.3%		22.5%		22.6%		22.8%	
Module Power Tolerance		0~+3%															
Operating Temperature		-40°C~+85°C															
Max. System Voltage		1500VDC (IEC)															
Max. Nominal Fuse Current		30A															
Application Level		A															
Front Side Maximum Static Loading		Up to 5400 Pa															
Rear Side Maximum Static Loading		Up to 2400 Pa															
Fire Performance		Type 29															
STC		Irradiance 1000W/m ² , Module temperature 25°C, AM 1.5															
NOTC		Irradiance 800W/m ² , Module temperature 20°C, AM 1.5, Wind speed 1m/s															

Temperature Characteristics	
Nominal Operating Cell Temperature	45±2°C
Temperature Coefficient (Pmax)	-0.3%/°C
Temperature Coefficient (Voc)	-0.27%/°C
Temperature Coefficient (Isc)	+0.045%/°C

Mechanical Data	
Dimensions	2278 x 1134 x 35 mm
Weight	32.6±0.5kg
Module composition	144 (6*24)
Front glass thickness	2.0mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Frame material	Aluminum, silver anodized
J-Box	IP68, 3 diodes
Cable	Portrait: 300 mm; Landscape: 1400mm, 4mm ² / 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	

