

Atlas



DOMESTIC CONTENT

P-Type 182MM Monofacial Module 430-455W



Black or White Backsheet

Our mono-facial glass model offers the choice of black or white backsheet, adding a touch of customization to your energy setup



Affordable Solar Excellence

Our mono-facial glass model is the more economical option, delivering reliable solar power without compromising on performance



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 4 size options with various of No. of cells

Pmax:

455W

Power range:

430-455W

Efficiency:

21.1%

Warranty:

25 years

Annual degradation:

0.55%

Product Certification

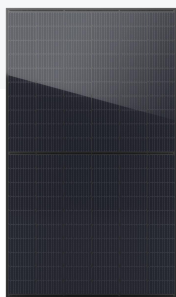


Reliably Built.

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 2026.


IMPERIALSTAR
www.imperialstar.com

Front



Back



455W

Maximum Power
Output

21.1%

Module
Efficiency

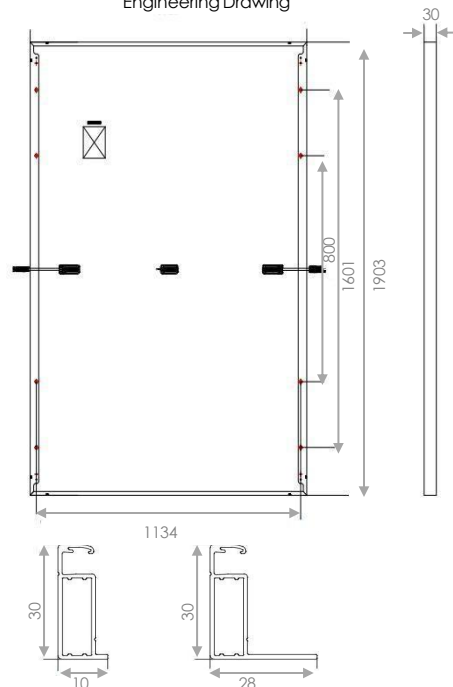
25 Year

Power Output
Warranty

12 Year

Product
Warranty

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

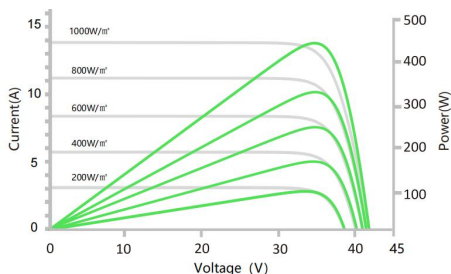


Optimized system performance due to module level current sorting



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

I-V Curves Of PV Module



Item		ISM7-SHDD120-430/M ISM7-SHDD120-435/M ISM7-SHDD120-440/M ISM7-SHDD120-445/M ISM7-SHDD120-450/M ISM7-SHDD120-455/M											
Max. Power (Pmax)	W	STC 430	NOTC 321.4	STC 435	NOTC 325.1	STC 440	NOTC 328.9	STC 445	NOTC 332.6	STC 450	NOTC 336.4	STC 455	NOTC 340.1
Opt. Operating Current (Imp)	A	12.72	10.18	12.79	10.24	12.86	10.30	12.93	10.36	13.00	10.41	13.06	10.46
Opt. Operating Voltage (Vmp)	V	33.80	31.54	34.01	31.73	34.22	31.93	34.43	32.12	34.64	32.32	34.85	32.52
Short Circuit Current (Isc)	A	13.58	10.95	13.65	11.01	13.72	11.07	13.79	11.12	13.86	11.18	13.93	11.23
Open Circuit Voltage (Voc)	V	40.53	38.11	40.73	38.29	40.93	38.48	41.13	38.67	41.33	38.86	41.53	39.05
Module Efficiency		19.9%		20.2%		20.4%		20.6%		20.9%		21.1%	
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	1903 x 1134 x 30 mm
Weight	23.5±0.5kg
Module composition	120 (6*20)
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 / 12 AWG
Connector	MC Compatible / MC4-EV02 (optional)

Packaging Specifications

Specifications	40HQ	53' Truck
Module quantity per pallet	36	31
Pallet quantity per container	24	21
Module quantity per container	864	756

Performance under low irradiation

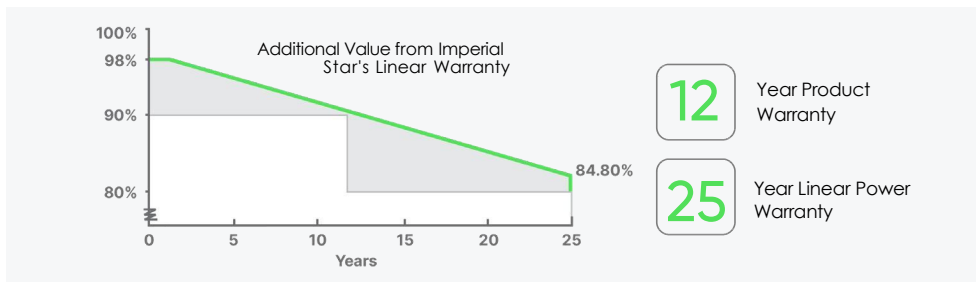
Industry-leading performance under low irradiance conditions. The module efficiency of irradiance 200W/m² is above 96.5% of the irradiance 1000W/m² module efficiency.

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



12

Year Product
Warranty

25

Year Linear Power
Warranty