

# Orion N

## N-Type 210MM Bifacial Double Glass Module 690-720W



### Larger PV Cell Technology

Revolutionizing solar technology with large silicon wafers, our modules are the prime choice for major projects



### High Efficiency, Low LOCE

Low LOCE ensures optimal performance and minimal costs through durable, high-yield, and easy maintenance energy solutions



### Advanced Cell Technology

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



### Maximized Power Generation

With our advanced bi-facial glass technology, it achieves a significant increase in power generation up to 720W

Pmax:

**720W**

Power range:

**690-720W**

Efficiency:

**23.2%**

Warranty:

**30 years**

Annual degradation:

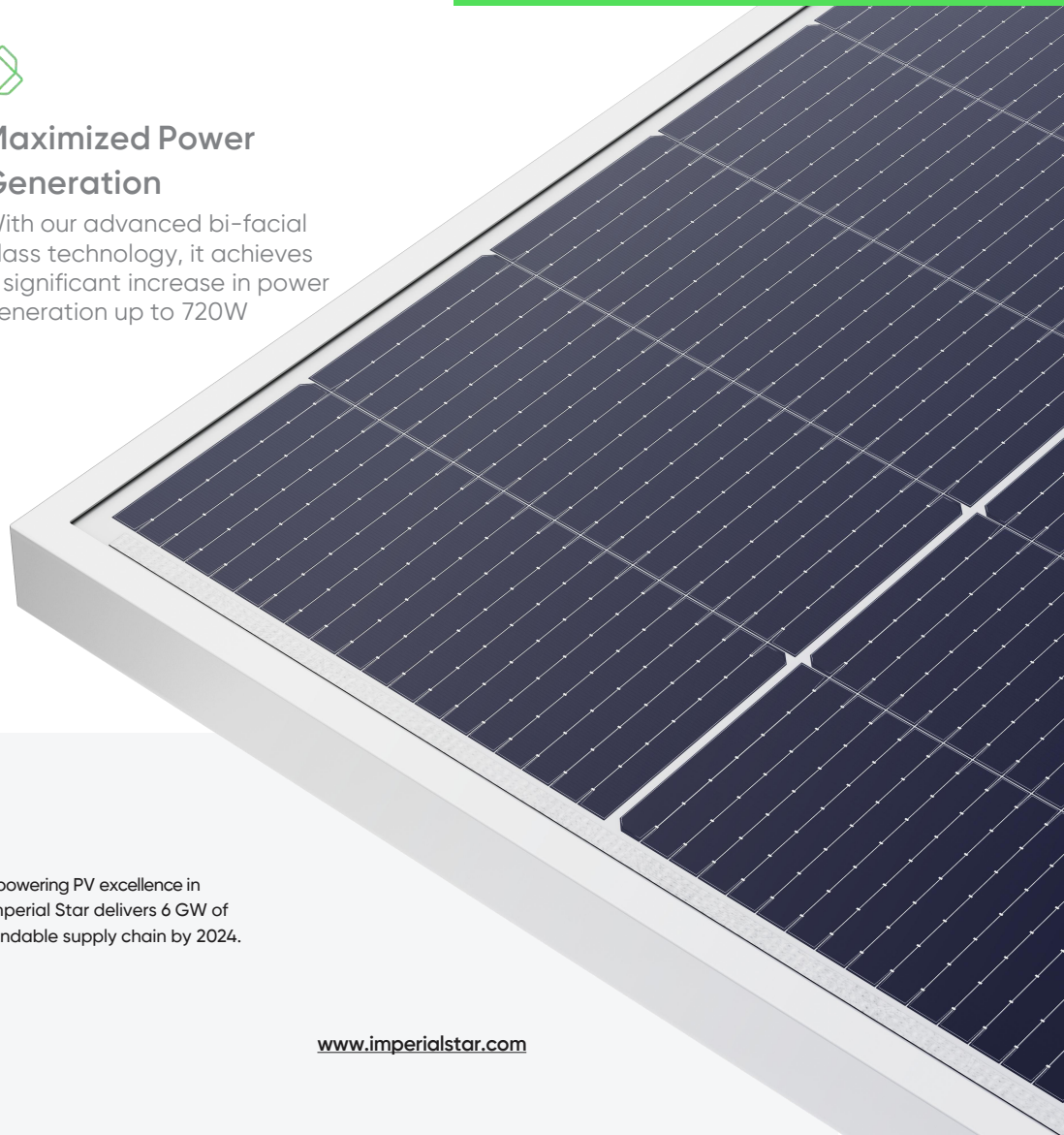
**0.40%**

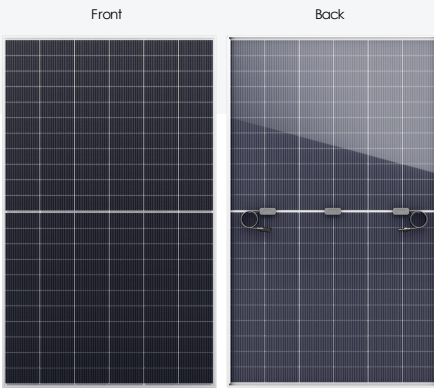
#### Product Certification



## 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.





**720W**

Maximum Power Output

**23.2%**

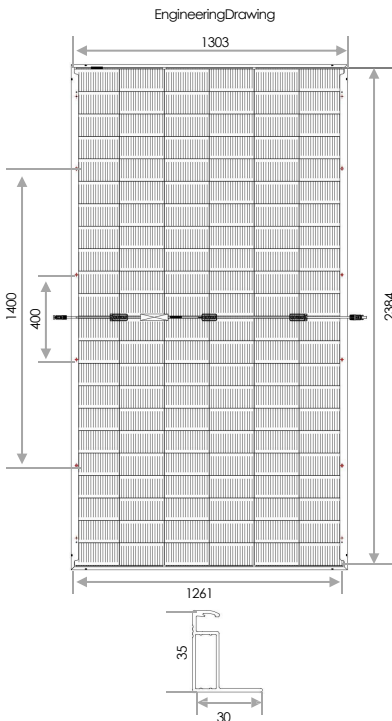
Module Efficiency

**30 Year**

Power Output Warranty

**12 Year**

Product Warranty



Item		ISN8-GPSB132-690/M		ISN8-GPSB132-695/M		ISN8-GPSB132-700/M		ISN8-GPSB132-705/M		ISN8-GPSB132-710/M		ISN8-GPSB132-715/M		ISN8-GPSB132-720/M	
		STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC
Max. Power (Pmax)	W	690	515.7	695	519.5	700	523.2	705	527.0	710	530.7	715	534.4	720	538.2
Opt. Operating Current (Imp)	A	17.26	13.83	17.29	13.85	17.33	13.88	17.36	13.91	17.40	13.94	17.44	13.97	17.47	13.99
Opt. Operating Voltage (Vmp)	V	40.01	37.33	40.21	37.52	40.41	37.70	40.61	37.89	40.81	38.08	41.00	38.25	41.21	38.45
Short Circuit Current (Isc)	A	18.24	14.71	18.28	14.74	18.32	14.78	18.36	14.81	18.40	14.84	18.44	14.87	18.48	14.90
Open Circuit Voltage (Voc)	V	47.81	44.95	48.01	45.14	48.21	45.33	48.41	45.52	48.61	45.70	48.81	45.89	49.00	46.07
Module Efficiency		22.2%		22.4%		22.5%		22.7%		22.9%		23.0%		23.2%	
Module Power Tolerance		0~+3%													
Operating Temperature		-40°C~+85°C													
Max. System Voltage		1500VDC (IEC)													
Max. Nominal Fuse Current		35A													
Application Level		A													
STC		Irradiance 1000W/m <sup>2</sup> , Module temperature 25°C, AM 1.5													
NOTC		Irradiance 800W/m <sup>2</sup> , 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	2384 x 1303 x 35mm
Weight	38.5±0.5kg
Module composition	132 (6*22)
Front glass thickness	2.0mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Frame material	Anodized aluminum alloy
J-Box	IP68, 3 diodes
Cable	Portrait: 300 mm; Landscape: 1400mm, 4mm <sup>2</sup> / 12AWG
Connector	MC Compatible / MC4-EV02(optional)

Packaging Specifications

Container	40HQ
Module quantity per pallet	31
Pallet quantity per container	18
Module quantity per container	558

Performance under low irradiation

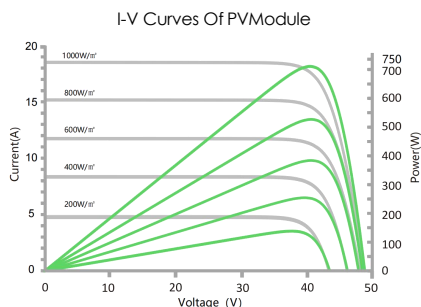
Industry-leading performance under low irradiance conditions. The module efficiency of irradiance 200/m<sup>2</sup> is above 96.5% of the irradiance 1000W/m<sup>2</sup> module efficiency.

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	



- 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



Warranty

