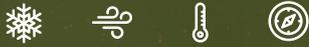


DUAL GLASS BIFACIAL
ORION nano-tech layer

580 - 600 Watt



KEY FEATURES

Our solar cells offer high conversion efficiency to ensure the highest quality.

Our high performing modules enable cost savings in mounting, cabling and labour of up to 15%.

The modules can withstand high wind-pressure, snow loads and extreme temperatures.

Passed IEC 5400 Pa mechanical loading test.
PID Resistance Available.

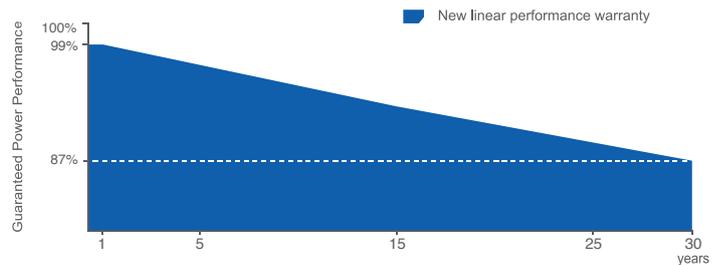


QUALITY AND SAFETY

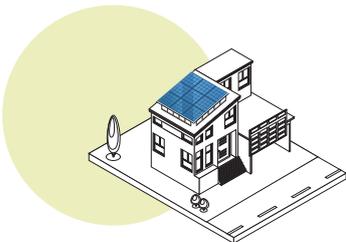


- Industry leading power output warranty
30 years/87,4%
- 30-year warranty on materials & workmanship
- Fire Rating: Class 1

PREMIUM PERFORMANCE WARRANTY



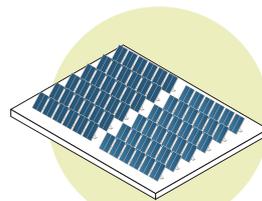
APPLICATIONS



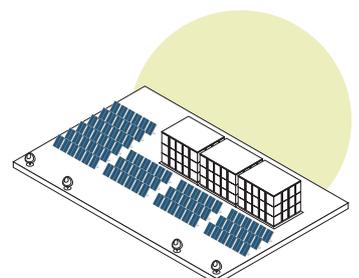
On-grid residential roof-tops



On-grid commercial - industrial roof-tops

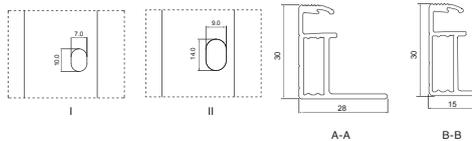
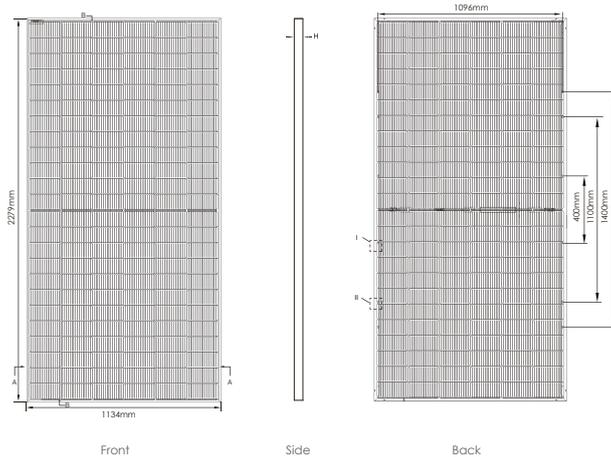


Solar power plants



Off-grid systems

ENGINEERING DRAWINGS



PACKAGING CONFIGURATION

Standard packaging (pallet)	30mm	36 pcs / pallet
	35mm	31 pcs / pallet
Module quantity per 40' container	30mm: 720 - 35mm: 620	
Pallets per container	20	

SPECIFICATIONS

Module Type ⁽¹⁾	ORION X-580M		ORION X-585M		ORION X-590M		ORION X-595M		ORION X-600M	
	STC ⁽²⁾	NMOT ⁽³⁾								
Maximum Power (Pmax)	580Wp	436Wp	585Wp	440Wp	590Wp	444Wp	595Wp	448Wp	600Wp	452Wp
Maximum Power Voltage (Vmp)	42.80V	39.86V	43.00V	40V	43.20V	40.15V	43.40V	40.29V	43.60V	40.43V
Maximum Power Current (Imp)	13.60A	10.94A	13.66A	11.00A	13.72A	11.06A	13.78A	11.12A	13.84A	11.18A
Open-circuit Voltage (Voc)	50.40V	48.89V	50.60V	49.08V	50.80V	49.27V	51.00V	49.46V	51.20V	49.65V
Short-circuit Current (Isc)	14.35A	11.6A	14.41A	11.65A	14.47A	11.7A	14.53A	11.75A	14.59A	11.8A
Module Efficiency (%)	22.44%		22.64%		22.83%		23.02%		23.22%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum system voltage	1500V DC									
Maximum series fuse rating	30A									
Power tolerance	0 ~ +5W									
Temperature coefficients of Pmax	-0.35%/°C									
Temperature coefficients of Voc	-0.28%/°C									
Temperature coefficients of Isc	0.048%/°C									
Nominal operating cell temperature (NOCT)	45±2 °C									
Refer. Bifacial Factor	70±5%									

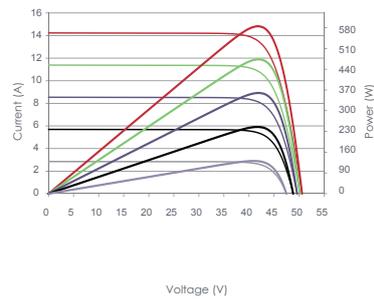
BIFACIAL OUTPUT-REAR SIDE POWER GAIN

STC Irradiance 1000W/m² Module Temperature 25°C AM=1.5

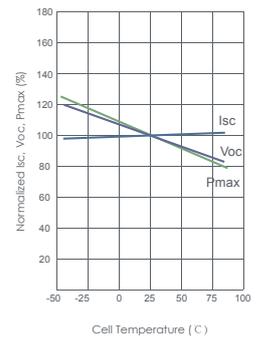
5%	609Wp	614Wp	619Wp	624Wp	630Wp
15%	667Wp	672Wp	678Wp	684Wp	690Wp
25%	725Wp	731Wp	737Wp	743Wp	750Wp

ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE

Current-Voltage & Power-Voltage Curves(580W)



Temperature Dependence of Isc, Voc, Pmax



MECHANICAL CHARACTERISTICS

Cell Type	Orion N-Type TOPCon Mono-crystalline (182x91mm) Orion Technology Layer Applied*
No. of cells	144 (6x24)
Dimensions	2279x1134x30mm (±2mm); 2279x1134x35mm (±2mm);
Weight	32.0kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Heat-strengthened glass
Frame	Anodized Aluminium Alloy (Silver/Black optional)
Junction Box	IP68 Rated
Output Cables	TÜV 1x4.0mm ² / UL 12AWG, Length:400mm/1100mm or customized length