

REAR CONTACT MONO

ORION nano-tech layer

470 - 485 Watt



KEY FEATURES

HIGH EFFICIENCY

- Increased solar light absorption area
- No front side busbars

HIGH RELIABILITY

- Rear Contact technology
- Lower micro-crack risk

AESTHETIC DESIGN

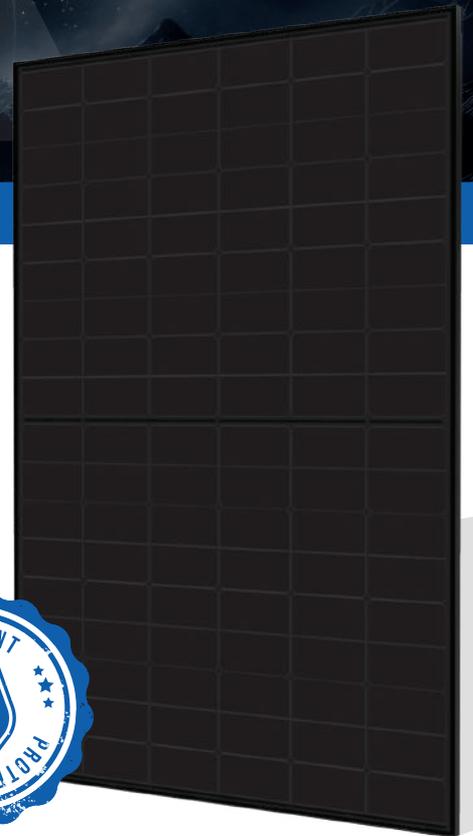
- Full black design with no visible front side contacts

HIGH DURABILITY

- Low degradation $\leq 1\%$ in year 1 and $\leq 0,4\%$ in years 2-30
- Low temperature coefficient of $-0,29\%/^{\circ}\text{C}$ optimised
- Positive power tolerance of $0\sim+3\%$

OPTIMIZED BOS

- Significant construction and installation cost savings



QUALITY AND SAFETY

- Industry leading power output warranty
30 years linear power warranty 87,4%
- 30 years warranty on materials & workmanship
- Fire Rating: Class 1
Passed IEC 5400 Pa mechanical loading test



PREMIUM PERFORMANCE WARRANTY

30 years

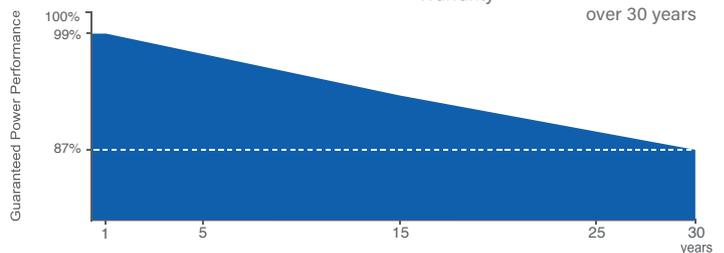
Product Warranty

30 years

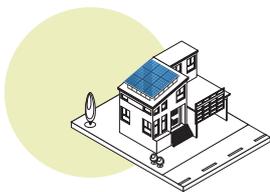
Linear Power
Warranty

0.40%

Annual
degradation
over 30 years



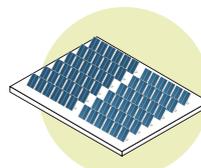
APPLICATIONS



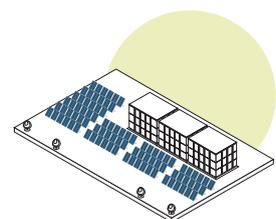
On-grid residential roof-tops



On-grid commercial - industrial roof-tops

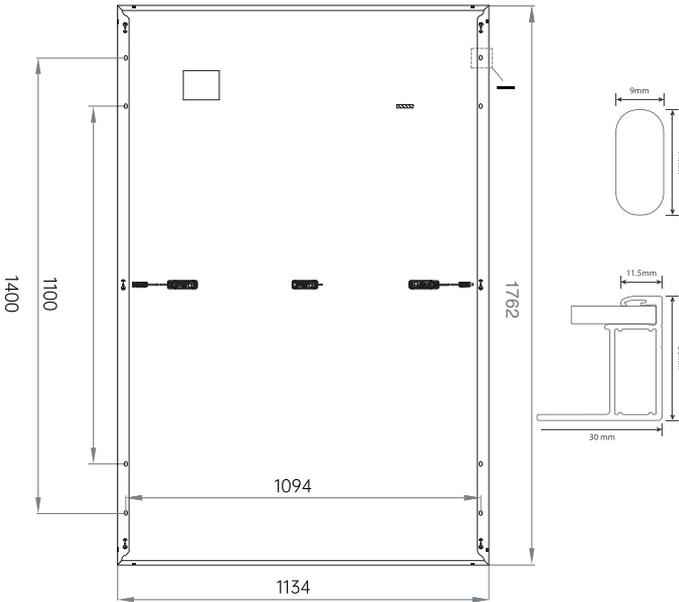


Solar power plants



Off-grid systems

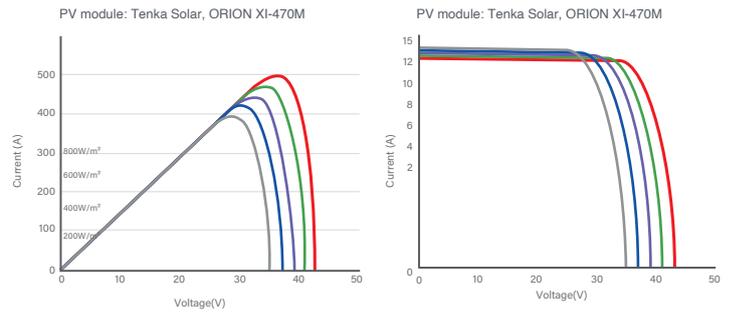
ENGINEERING DRAWINGS



PACKAGING CONFIGURATION

Standard packaging	36 pcs / pallet
Module quantity per 40' container	936 pcs
Pallets per container	26

ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



MECHANICAL CHARACTERISTICS

Cell Type	Rear Contact N-Type Plus, mono-crystalline 186mm Orion Technology Layer Applied*
No. of cells	108
Dimensions	1762 x 1134 x 30 mm (±2mm)
Weight	21.5kgs
Front Glass	3.2mm tempered, high transmission AR coating
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TÜV 1x4.0mm ² / UL 12AWG, Length:1100mm

SPECIFICATIONS

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

Module Type ⁽¹⁾	ORION XIs-470M		ORION XIs-475M		ORION XIs-480M		ORION XIs-485M	
	STC ⁽²⁾	NMOT ⁽³⁾						
Maximum Power (Pmax)	470Wp	355Wp	475Wp	359Wp	480Wp	363Wp	485Wp	367Wp
Maximum Power Voltage (Vmp)	33.90V	32.21V	34.00V	32.30V	34.10V	32.39V	34.20V	32.48V
Maximum Power Current (Imp)	13.87A	11.03A	13.97A	11.12A	14.08A	11.21A	14.19A	11.30A
Open-circuit Voltage (Voc)	40.89V	38.03V	40.99V	38.12V	41.09V	38.21V	41.19V	38.30V
Short-circuit Current (Isc)	14.61A	11.51A	14.71A	11.56A	14.81A	11.51A	14.91A	11.57A
Module Efficiency (%)	23.52%		23.77%		24.02%		24.27%	
Voc and isc tolerance	±3%							
Operating Temperature(°C)	-40°C~+85°C							
Maximum system voltage	1500V							
Maximum series fuse rating	25A							
Temperature coefficients of Pmax	-0.26%/°C							
Temperature coefficients of Voc	-0.22%/°C							
Temperature coefficients of Isc	0.049%/°C							
Nominal operating cell temperature (NOCT)	45±2 °C							