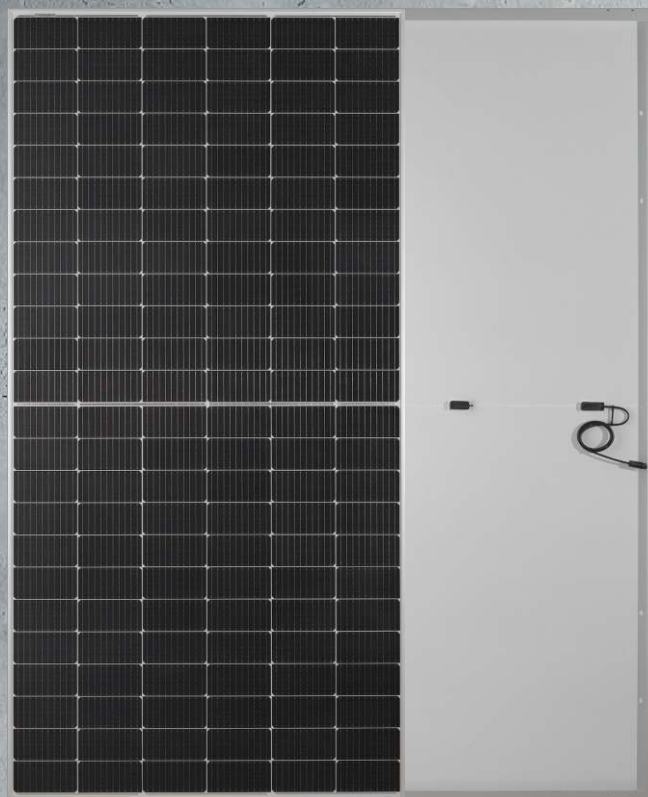


Tenka Orion IX **Silver Frame**



Tenka Orion IX - Product features



Module efficiency

22.21% module efficiency and
690W Peak power



Maximum power output

Maximum output of
690 watts



Nanotech coating

Patented Tenka Nanotech technology
for improved light absorption



Longevity

Low degradation, optimised
long-term performance



Product guarantee

30-year product guarantee for
maximum investment security



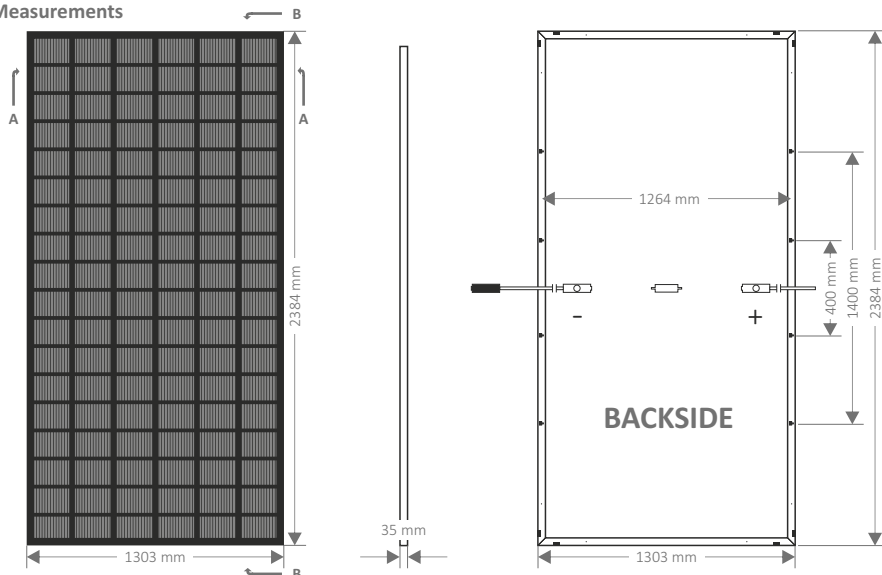
Performance guarantee

30-year performance guarantee on
87.4 % performance guaranteed

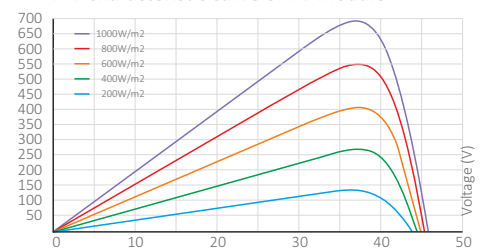
Tenka Orion IX

Technical Datasheet	670 W		675 W		680 W		685 W		690 W	
	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²
Maximum power (Pmax)	670 Wp	510 Wp	675 Wp	514 Wp	680 Wp	518 Wp	685 Wp	522 Wp	690 Wp	526 Wp
Maximum power Voltage (Vmp)	38,20 V	34,79 V	38,40 V	34,97 V	38,60 V	35,15 V	38,80 V	35,32 V	39,00 V	35,50 V
Maximum power Current (Imp)	17,55 A	14,66 A	17,59 A	14,70 A	17,63 A	14,74 A	17,67 A	14,78 A	17,71 A	14,82 A
Open circuit voltage (Voc)	46,10 V	41,92 V	46,30 V	42,10 V	46,50 V	42,28 V	46,70 V	42,46 V	46,90 V	42,64 V
Short-circuit current (Isc)	18,62 A	15,66 A	18,66 A	15,70 A	18,71 A	15,74 A	18,75 A	15,78 A	18,80 A	15,82 A
Module efficiency (%)	21,57%		21,73%		21,89%		22,05%		22,21%	
Voc and Isc Tolerances	±3%									
Operating temperature (°C)	-40°C~+85°C									
Maximum system voltage	1500V									
Maximum series protection	35A									
Temperature coefficient Pmax	-0,29%/°C									
Temperature coefficient Voc	-0,25%/°C									
Temperature coefficient Isc	+0,048%/°C									
Nominal operating temperature of the cell (NOCT)	45±2 °C									
Cell type	N-Type, TOPCon, mono-crystalline 210 mm, Tenka Nanotech Coating									
Number of cells	132									
Dimensions	2384 x 1303 x 35 mm (±2mm)									
Weight	33,5 Kg									
Glass front	3,2 mm tempered glass, highly transparent anti-reflective coating									
Backside	Grey Film									
Frame	Anodized aluminium alloy, Silver									
Junction box	Protection class IP68									
Output cable	TÜV 1 x 4,0 mm ² / UL 12AWG, Length 1200 mm									
Resistance to mechanical loads	5.400 Pa acc. IEC 61215-1-2									
Certificates	IEC61215, IEC61730									

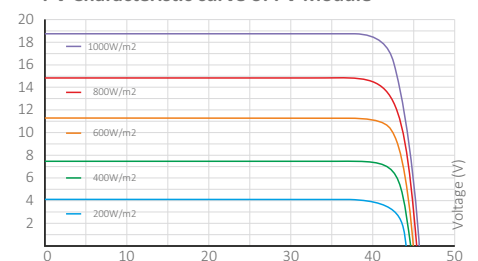
Measurements



P-V Characteristic curve of PV Module



I-V Characteristic curve of PV Module



Packaging information: 31 pieces per pallet, 558 pieces per container (18 pallets)

* By using the Tenka Nanotech layer, 15/20 watts more are generated compared to the standard cell.

¹ STC (standard test conditions): Irradiance 1000W/m². Cell temperature 25°C. AM 1.5

² NMOT (Nominal Module Operating Temperature): Irradiance 800W/m². NMOT ambient temperature 20°C. AM 1.5.

Wind speed 1m/s. Data at nominal conditions. Errors and omissions excepted. Illustrations may vary.