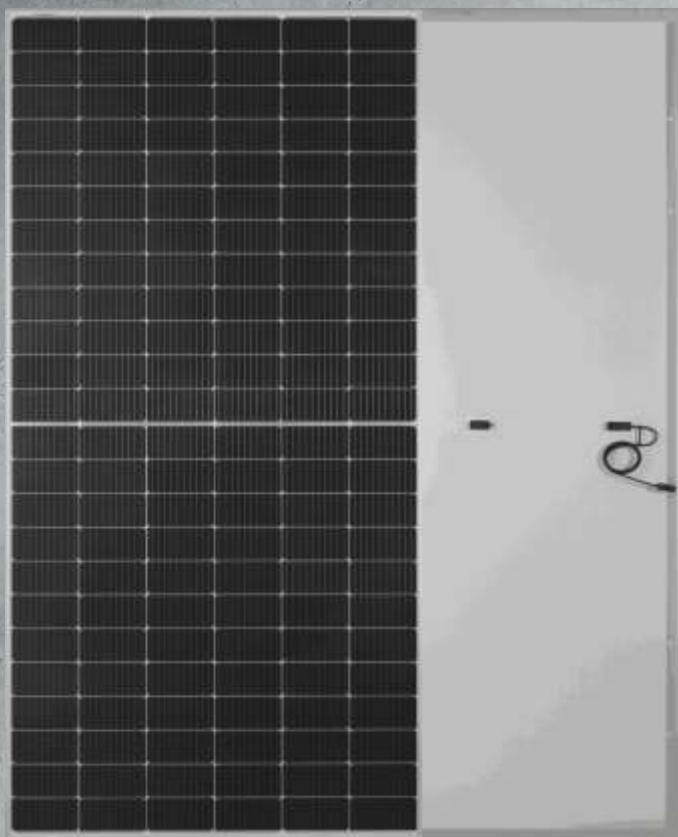


Tenka Orion IX **Silver Frame**



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



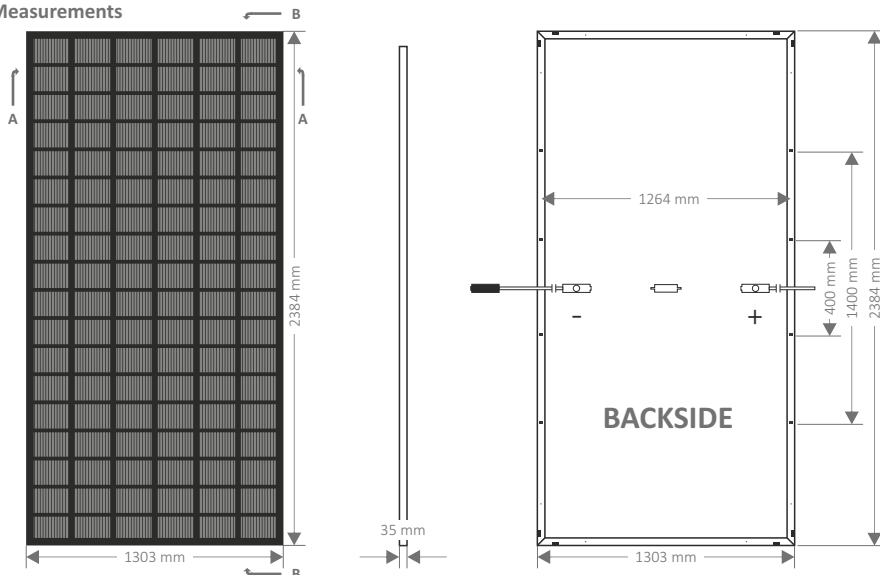
Performance guarantee

30-year performance guarantee on
87.4 % performance guaranteed

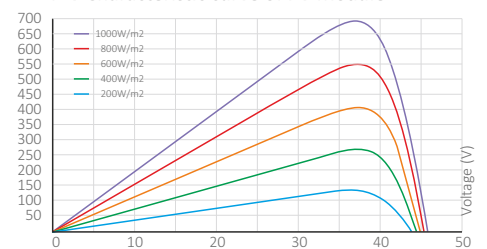
Tenka Orion IX

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)	670Wp	510Wp	675Wp	514Wp	680Wp	518Wp	685Wp	522Wp	690Wp	526Wp
Maximum power Voltage (Vmp)	38,20V	34,79V	38,40V	34,97V	38,60V	35,15V	38,80V	35,32V	39,00V	35,50V
Maximum power Current (Imp)	17,55A	14,66A	17,59A	14,70A	17,63A	14,74A	17,67A	14,78A	17,71A	14,82A
Open circuit voltage (Voc)	46,10V	41,92V	46,30V	42,10V	46,50V	42,28V	46,70V	42,46V	46,90V	42,64V
Short-circuit current (Isc)	18,62A	15,66A	18,66A	15,70A	18,71A	15,74A	18,75A	15,78A	18,80A	15,82A
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									

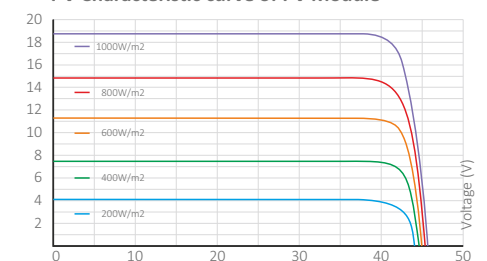
Measurements



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.