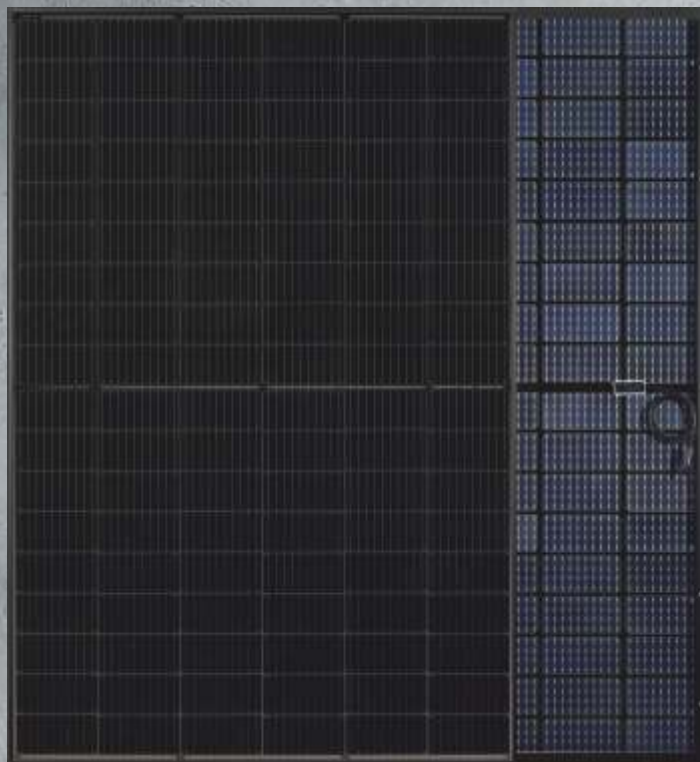


Tenka Orion III Plus **Bifacial Black Mesh**



Tenka Orion III Plus - Product features



Module efficiency

23.27% module efficiency and 465W
Peak power under 2 square metres



Bifacial design

Additional yield through rear power
increase



Nanotech coating

Tenka Nanotech technology for
improved light absorption



Longevity

Low degradation, optimised
long-term performance



Product guarantee

30-year product guarantee for
maximum investment security



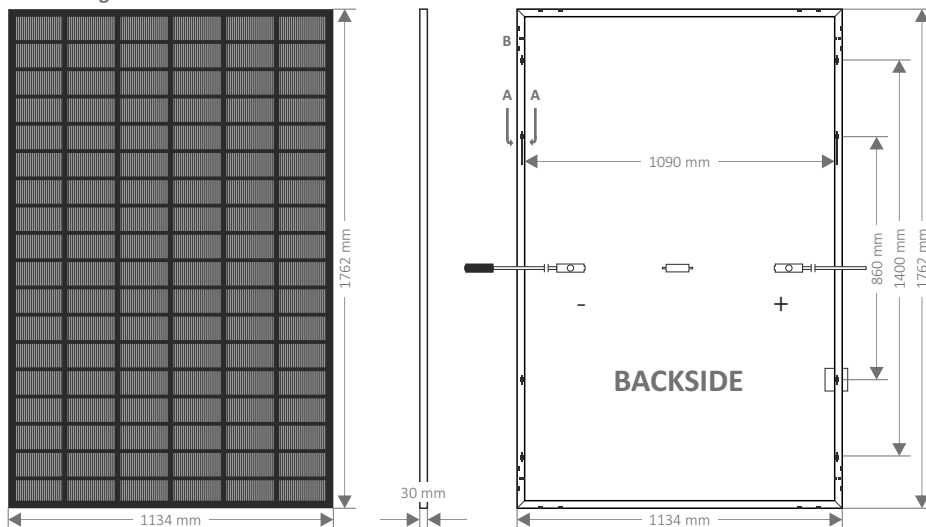
Performance guarantee

30-year performance guarantee on
87.4 % performance guaranteed

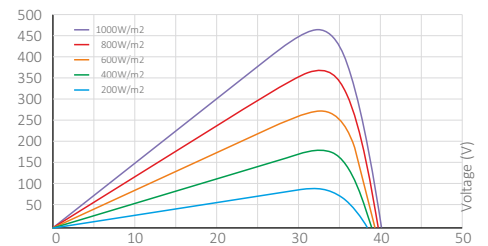
Tenka Orion III Plus

Technical Datasheet	450 W		455 W		460 W		465 W	
	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²
Maximum power (Pmax)	450Wp	341Wp	455Wp	345Wp	460Wp	349Wp	465Wp	352Wp
Maximum power Voltage (Vmp)	33,22V	30,56V	33,42V	30,75V	33,63V	30,94V	33,83V	31,12V
Maximum power Current (Imp)	13,55A	11,16A	13,61A	11,21A	13,68A	11,27A	13,75A	11,32A
Open circuit voltage (Voc)	39,78V	36,20V	39,98V	36,38V	40,18V	36,56V	40,38V	36,75V
Short-circuit current (Isc)	14,00A	11,29A	14,06A	11,34A	14,13A	11,40A	14,20A	11,45A
Module efficiency (%)	22,52%		22,77%		23,02%		23,27%	
Voc and Isc Tolerances	±3%							
Operating temperature (°C)	-40°C~+85°C							
Maximum system voltage	1500V							
Maximum series protection	25A							
Temperature coefficient Pmax	-0,29%/°C							
Temperature coefficient Voc	-0,25%/°C							
Temperature coefficient Isc	0,045%/°C							
Nominal operating temperature of the cell (NOCT)	45±2 °C							
Cell type	N-Type, TOPCon, mono-crystalline 183 mm, Tenka Nanotech Coating							
Number of cells	108							
Dimensions	1762 x 1134 x 30 mm (±2mm)							
Weight	24 Kg							
Glass front	2 mm tempered glass, highly transparent anti-reflective coating							
Glass back	2 mm tempered glass, highly transparent anti-reflective coating							
Frame	Anodized aluminium alloy, Black							
Junction box	Protection class IP68							
Output cable	TÜV 1 x 4,0 mm² / UL 12AWG, Length 1100 mm							
Resistance to mechanical loads	5.400 Pa acc. IEC 61215-1-2							
Certificates	IEC61215, IEC61730							
Bi-facial backside power increase	450 W		455 W		460 W		465 W	
5%	472 Wp		477 Wp		483 Wp		488 Wp	
15%	517 Wp		523 Wp		529 Wp		534 Wp	
25%	562 Wp		568 Wp		575 Wp		581 Wp	

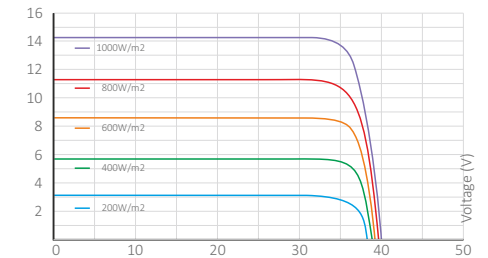
Abmessungen



P-V Characteristic curve of PV Module



I-V Characteristic curve of PV Module



Packaging information: 36 pieces per pallet, 936 pieces per container (26 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.

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