

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



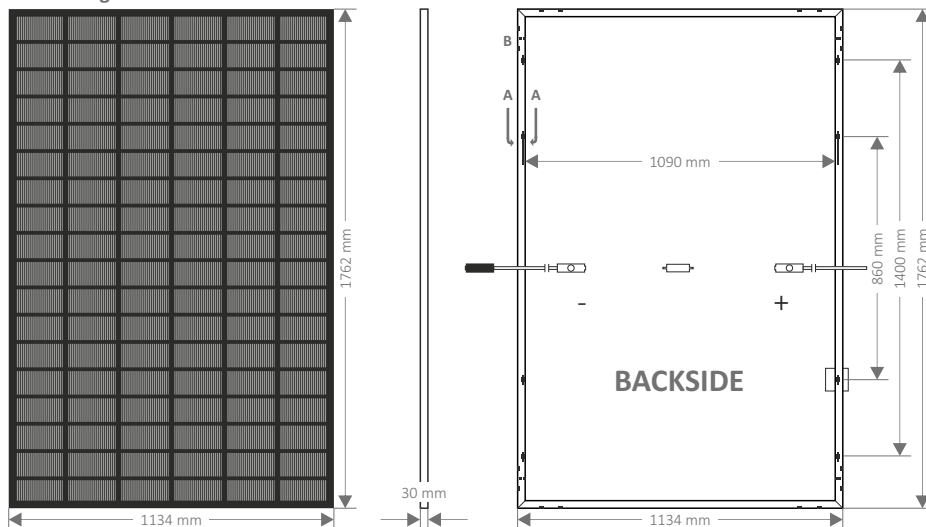
Performance guarantee

30-year performance guarantee on
87.4 % performance guaranteed

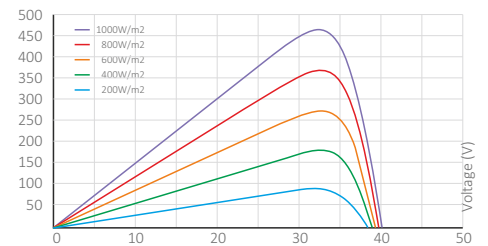
Tenka Orion III Plus

Technical Datasheet			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)	450 Wp	341 Wp	455 Wp	345 Wp	460 Wp	349 Wp	465 Wp	352 Wp
Maximum power Voltage (Vmp)	33,22 V	30,56 V	33,42 V	30,75 V	33,63 V	30,94 V	33,83 V	31,12 V
Maximum power Current (Imp)	13,55 A	11,16 A	13,61 A	11,21 A	13,68 A	11,27 A	13,75 A	11,32 A
Open circuit voltage (Voc)	39,78 V	36,20 V	39,98 V	36,38 V	40,18 V	36,56 V	40,38 V	36,75 V
Short-circuit current (Isc)	14,00 A	11,29 A	14,06 A	11,34 A	14,13 A	11,40 A	14,20 A	11,45 A
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	

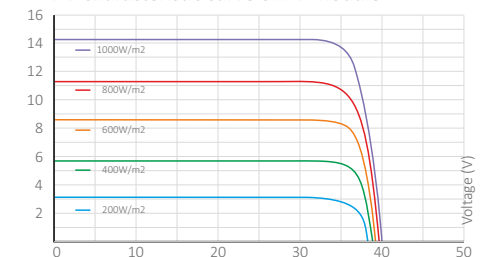
Abmessungen



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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solar