

## Tenka Orion III Plus **Bifacial**



### 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

Patented Tenka Nanotech technology  
for improved light absorption



#### Longevity

Low degradation, optimised long-term  
performance



#### Product guarantee

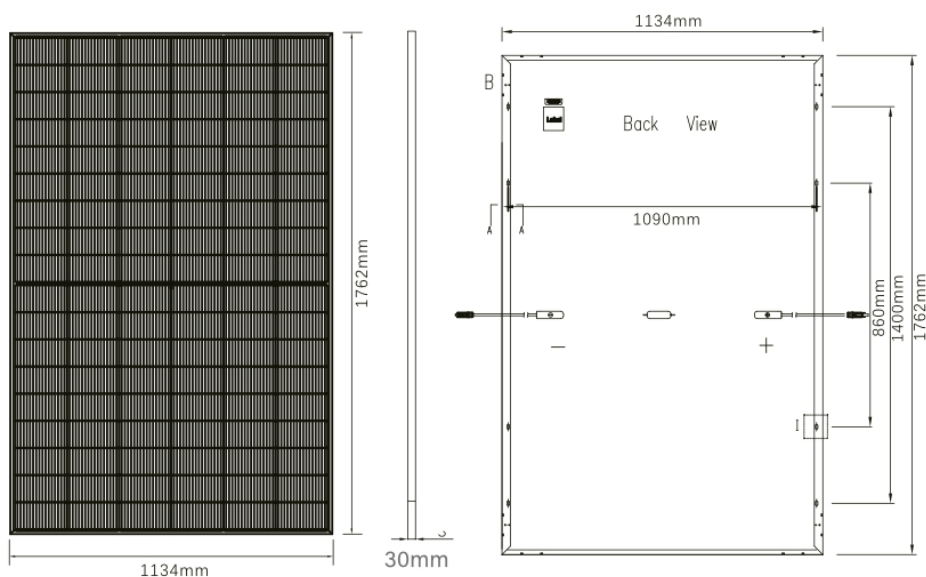
30-year product guarantee for  
maximum investment security



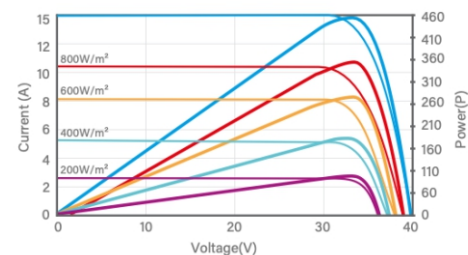
#### Performance guarantee

30-year performance guarantee on  
87.4 % performance guaranteed

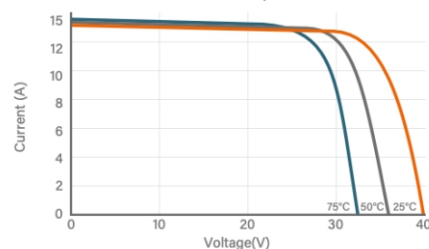
Technical Datasheet	450 W		455 W		460 W		465 W	
	STC <sup>1</sup>	NMOT <sup>2</sup>	STC <sup>1</sup>	NMOT <sup>2</sup>	STC <sup>1</sup>	NMOT <sup>2</sup>	STC <sup>1</sup>	NMOT <sup>2</sup>
Maximum power (Pmax)	450Wp	341Wp	455Wp	345Wp	460Wp	349Wp	465Wp	352Wp
Maximum power Voltage (Vmp)	33,22V	30,56V	33,42V	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 (%)	22,25%		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							
Junction box	Protection class IP68							
Output cable	TÜV 1x4,0 mm <sup>2</sup> / UL 12AWG, Length 1100mm							
Resistance to mechanical loads	5.400 Pa acc. IEC 61215-1-2							
Certificates	IEC61215, IEC61730							
<b>Bi-facial backside power increase</b>	<b>470 W</b>	<b>475 W</b>	<b>480 W</b>	<b>485 W</b>				
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				



I-V characteristics at different irradiation



I-V characteristics at different temperature



Verpackungsinformationen: 36 Stück pro Palette, 936 Stück pro Container (26 Paletten)

<sup>1</sup> STC (Standard-Testbedingungen): Bestrahlungsstärke 1000W/m<sup>2</sup>. Zelltemperatur 25°C. AM 1,5  
<sup>2</sup> NMOT (Nominale Modulbetriebstemperatur): Bestrahlungsstärke 800W/m<sup>2</sup>. NMOT-Umgebungstemperatur 20°C. AM 1,5. Windgeschwindigkeit 1m/s. Daten bei Nennbedingungen.  
 Alle Angaben vorbehaltlich Änderungen | Version: Feb 2025

