

Tenka Orion III Ultra **Bifacial Black Mesh**



Tenka Orion III Ultra Bi-facial - Product features

**Module efficiency**

23.76% module efficiency and
485W Peak power

**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

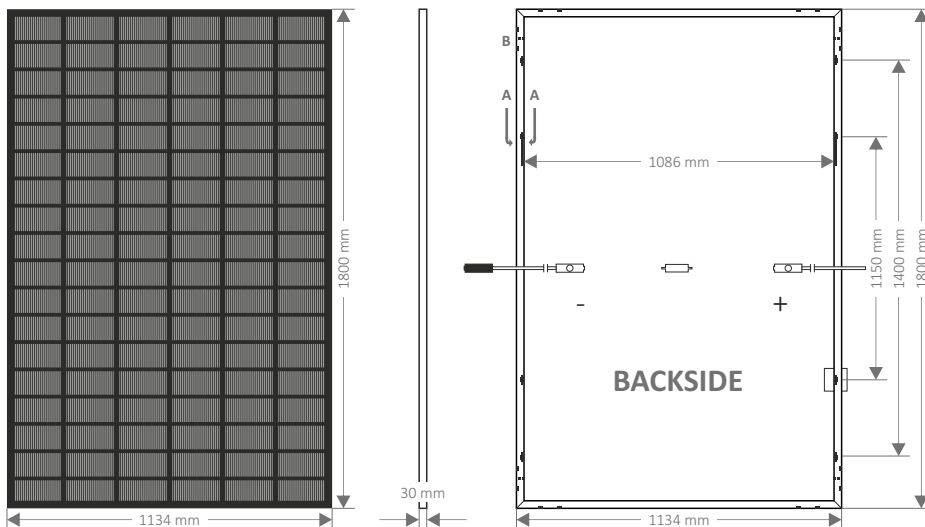
**Performance guarantee**

30-year performance guarantee on
87.4 % performance guaranteed

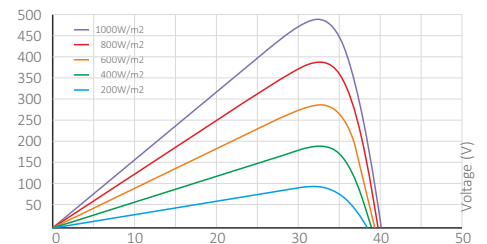
Tenka Orion III Ultra Bi-facial

Technical Datasheet	470 W		475 W		480 W		485 W	
	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²	STC ¹	NMOT ²
Maximum power (Pmax)	470Wp	356Wp	475Wp	360Wp	480Wp	364Wp	485Wp	368Wp
Maximum power Voltage (Vmp)	33,62V	30,93V	33,82V	31,11V	34,02V	31,29V	34,22V	31,47V
Maximum power Current (Imp)	13,98A	11,52A	14,04A	11,57A	14,11A	11,64A	14,18A	11,70A
Open circuit voltage (Voc)	40,18V	36,56V	40,38V	36,75V	40,58V	36,93V	40,78V	37,11V
Short-circuit current (Isc)	14,71A	11,87A	14,89A	11,97A	14,98A	12,13A	15,08A	12,29A
Module efficiency (%)	23,02%		23,27%		23,52%		23,76%	
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	1800 x 1134 x 30 mm (±2mm)							
Weight	24,5 Kg							
Glass front	1,6 mm glass, anti-reflective coating							
Glass back	1,6 mm tempered glass							
Frame	Anodized aluminium alloy, Black							
Junction box	Protection class IP68							
Output cable	TÜV 1 x 4.0 mm2 / UL 12AWG, length 1100 mm with original Stäubli MC4 connectors							
Resistance to mechanical loads	5.400 Pa acc. IEC 61215-1-2							
Certificates	IEC61215, IEC61730							
Bi-facial backside power increase	470 W		475 W		480 W		485 W	
5%	494 Wp		499 Wp		504 Wp		509 Wp	
15%	540 Wp		546 Wp		552 Wp		557 Wp	
25%	587 Wp		593 Wp		600 Wp		606 Wp	

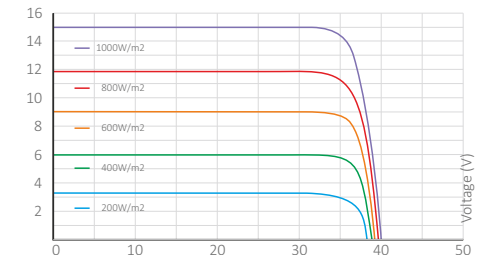
Measurements



P-V Characteristic curve of PV Module



I-V Characteristic curve of PV Module



Packaging information: 36 pieces per pallet, 864 pieces per container (24 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.