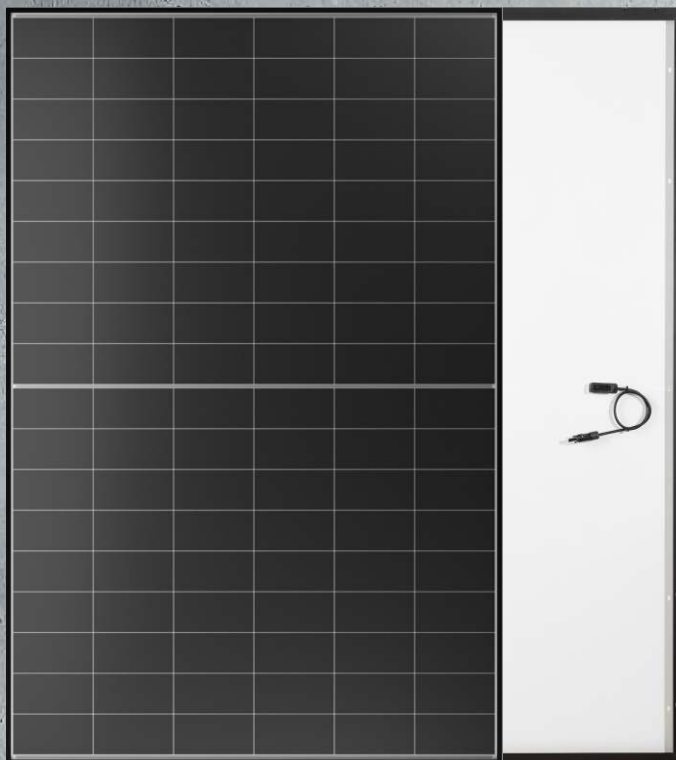


Tenka Orion III Ultra **Black Frame**



Tenka Orion III Ultra - Product features



Module efficiency

23.76% module efficiency and 485W
Peak power under 2 square metres



Hail protection class 4

Hail protection class 4 for protection
against hailstones up to 45 mm



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



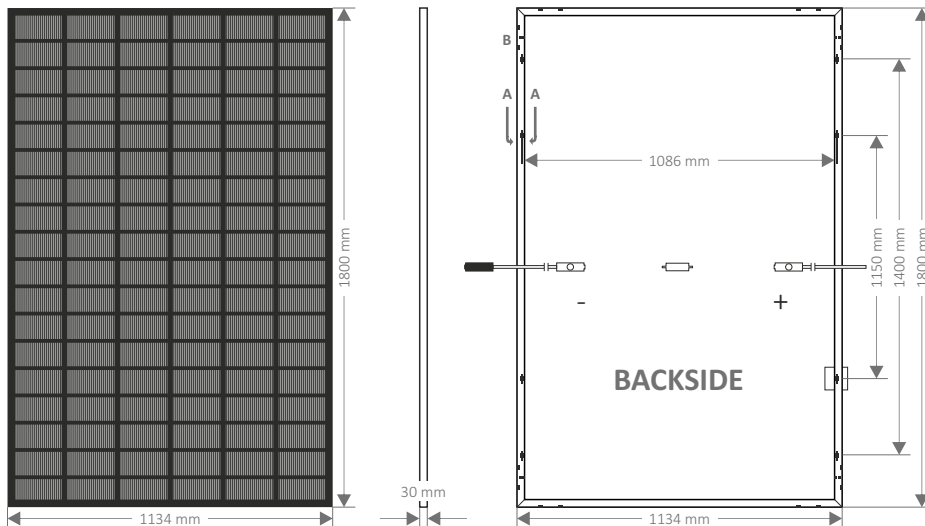
Performance guarantee

30-year performance guarantee on
87.4 % performance guaranteed

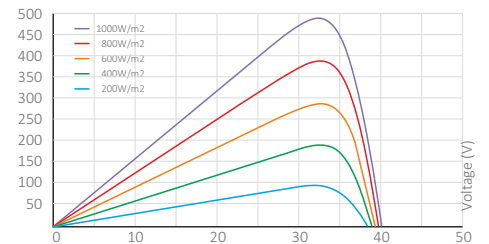
Tenka Orion III Ultra

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)	470 Wp	356 Wp	475 Wp	360 Wp	480 Wp	364 Wp	485 Wp	368 Wp
Maximum power Voltage (Vmp)	33,62 V	30,93 V	33,82 V	31,11 V	34,02 V	31,29 V	34,22 V	31,47 V
Maximum power Current (Imp)	13,98 A	11,52 A	14,04 A	11,57 A	14,11 A	11,64 A	14,18 A	11,70 A
Open circuit voltage (Voc)	40,18 V	36,56 V	40,38 V	36,75 V	40,58 V	36,93 V	40,78 V	37,11 V
Short-circuit current (Isc)	14,71 A	11,87 A	14,89 A	11,97 A	14,98 A	12,13 A	15,08 A	12,29 A
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	21,5 Kg							
Glass front	3,2 mm tempered glass, highly transparent anti-reflective coating							
Backside	White film							
Frame	Anodized aluminium alloy, Black							
Junction box	Protection class IP68							
Output cable	TÜV 1 x 4.0 mm2 / UL 12AWG, length 1100mm with original Stäubli MC4 connectors							
Resistance to mechanical loads	5.400 Pa acc. IEC 61215-1-2							
Certificates	IEC61215, IEC61730							

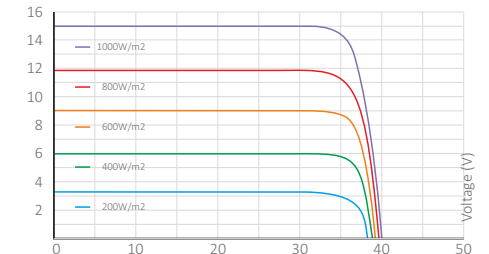
Measurements



P-V Characteristic curve of PV Module



I-V Characteristic curve of PV Module



Packaging information: 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.

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