

### Back Contact Bifacial Full Black 480 - 490

The best of all technologies combined in one solar module:

- > Highest energy efficiency
- > PID protected
- > Optimized light utilization and efficient power production
- > Up to 30% more power through dual-sided energy generation (Bifacial)
- > Thoroughly tested for European standards
- > Best temperature coefficient
- > Highest fire resistance
- > Prevention of microcracks through additional EL tests

**30**  
YEAR  
PERFOR-  
MANCE  
WARRANTY

**25**  
YEAR  
PRODUCT  
WARRANTY



#### Outstanding Performance

Up to 490 watts power and up to 24% module efficiency.



#### Shading Optimization

Optimization for partial shading for higher yields.



#### IBC Back Contact Technology

Ensures excellent microcrack resistance.



#### Bifacial Glass/Glass Design

Additional yield through rear-side power enhancement.



#### Aesthetic Design

Seamless black design without visible front contacts.



#### Comprehensive Warranty

30-year performance warranty at 88.85%. 25-year product warranty.

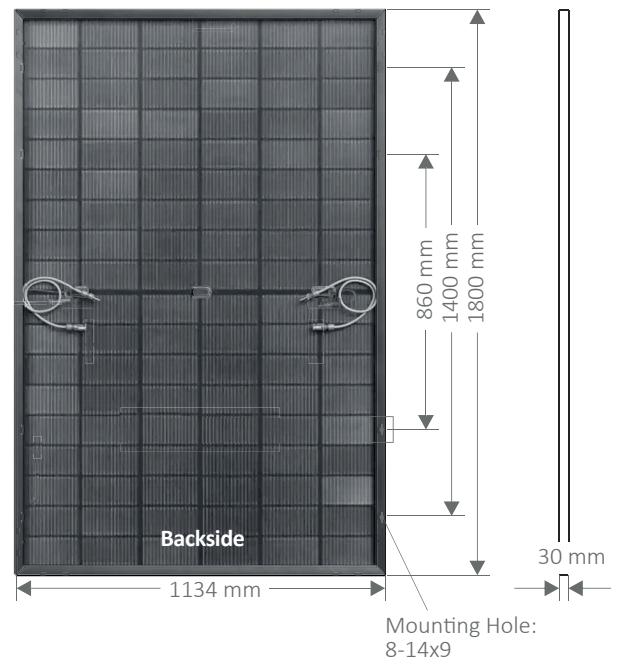
# Tenka Solar Ultimate Back Contact Bifacial Full Black 480 - 490

08/2025

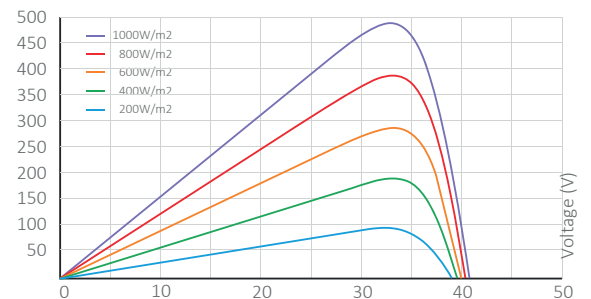
Technical Datasheet	480 W		485 W		490 W	
Model Designation	TP-ULT-BC480-DG20-G5-BK		TP-ULT-BC485-DG20-G5-BK		TP-ULT-BC490-DG20-G5-BK	
	STC <sup>1</sup>	NMOT <sup>2</sup>	STC <sup>1</sup>	NMOT <sup>2</sup>	STC <sup>1</sup>	NMOT <sup>2</sup>
Maximum Power at STC (Pmax)	480 Wp	364 Wp	485 Wp	368 Wp	490 Wp	372 Wp
Maximum Power Voltage (Vmp)	33.84 V	31.11 V	33.94 V	32.20 V	34.04 V	32.30 V
Maximum Power Current (Imp)	14.19 A	11.35 A	14.30 A	11.44 A	14.40 A	11.51 A
Open Circuit Voltage (Voc)	40.76 V	38.67 V	40.89 V	38.80 V	41.02 V	38.92 V
Short Circuit Current (Isc)	14.96 A	12.09 A	15.03 A	12.15 A	15.10 A	12.21 A
Module Efficiency (%)	23.5%		23.8%		24.0%	
Bifacial Rear-Side Power Gain						
10%	528 Wp		534 Wp		539 Wp	
20%	576 Wp		582 Wp		588 Wp	
30%	624 Wp		631 Wp		637 Wp	

Output power tolerance	0 > 5 Watt
Operating Temperature (°C)	-40°C~+85°C
Maximum System Voltage	1500V
Maximum Series Fuse Rating	25A
Temperature Coefficient Pmax	-0.26%/°C
Temperature Coefficient Voc	-0.22%/°C
Temperature Coefficient Isc	+0.05%/°C
Nominal Cell Operating Temperature (NOCT)	45±2 °C
Cell Type	N-Type, Back Contact, monocrystalline
Number of Cells	108 (6 x 18)
Dimensions	1800 x 1134 x 30 mm (±2mm)
Weight	24.5 kg ± 3%
Front Glass	2.0 mm tempered glass, anti-reflective coating
Rear Glass	2.0 mm tempered glass, anti-reflective coating
Frame	Anodized aluminum alloy, black
Junction Box	IP68 protection class
Output Cable	TÜV 1 x 4.0 mm <sup>2</sup> / UL 12AWG, lenght 1200 mm
Connector	Original Stäubli MC4-EVO 2
Mechanical Load Resistance (Wind & Snow)	5.400 Pa acc. IEC 61215-1-2
Fire Rating	Class A
Hail Rating	IEC Class 4
Certifications	IEC61215, IEC61730

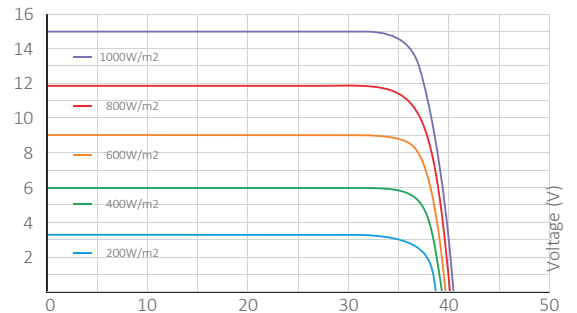
## Dimensions



## P-V characteristic curve of the PV module

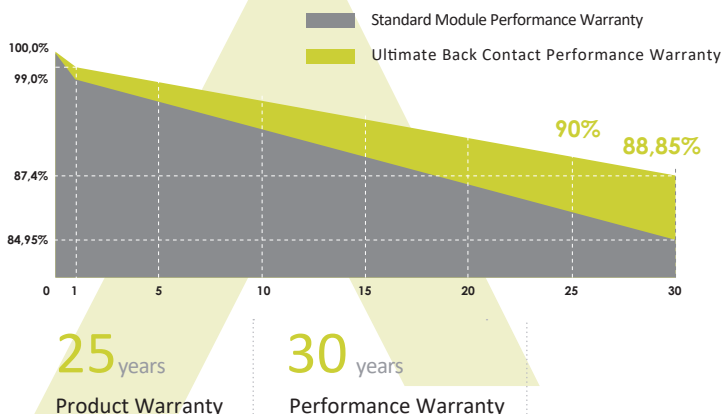


## I-V characteristic curve of the PV module



**Packaging Information:** 37 pieces per pallet, 888 pieces per container (24 pallets)

## Performance Warranty



<sup>1</sup> STC (Standard Test Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM 1.5

<sup>2</sup> NMOT (Nominal Module Operating Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s. Data under nominal conditions. Subject to changes and errors. Illustrations may vary.