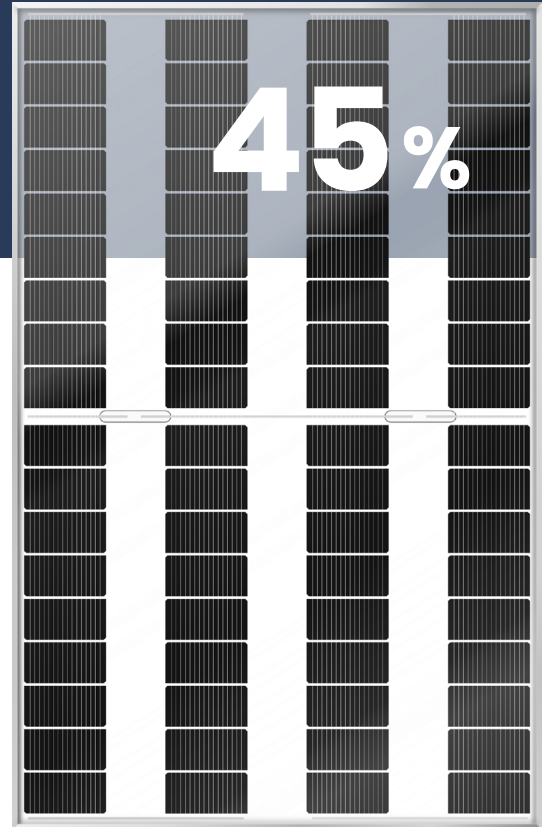


# Tangra™ S Pro AgriPV

## 280-290W

N-Type High efficiency Bifacial Dual Glass Module



Bifacial technology allows up to 30% additional energy harvesting from the rear side



30 years lifespan brings 10-30% more power generation compared with conventional P-type modules



The natural lack of LID in the N-type solar cell can increase power generation



Excellent low irradiance performance



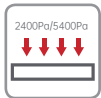
Better light trapping and current collection to improve module power output and reliability



Industry-leading, lowest thermal coefficient



Optimized electrical design and lower operating current for reduced hot spot loss and better temperature



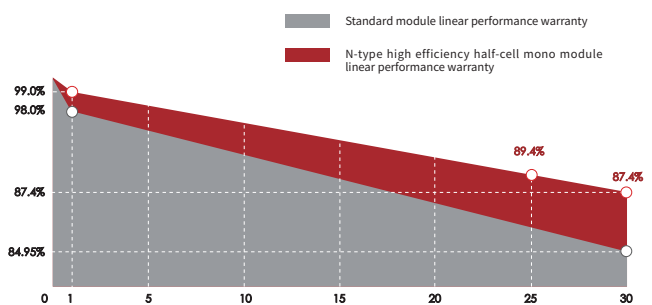
Certified to withstand 2400 Pa of wind load and 5400 Pa of snow load



100% triple EL test, which greatly reduces the hidden cracks rate

## WARRANTY INSURANCE

## LINEAR PERFORMANCE WARRANTY



\* Optional performance warranty insurance. Please contact our local sales staff for more information.

**15** years  
Product quality & process guarantee

**30** years  
Linear power guarantee

**0.40** %  
Annual degradation

## ELECTRICAL CHARACTERISTICS

Model of modules	TS-BGT36(280)		TS-BGT36(285)		TS-BGT36(290)	
	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — $P_{mp}$ (W)	280	211	285	214	290	219
Open-circuit voltage — $V_{oc}$ (V)	25.05	23.65	25.38	23.96	25.51	24.08
Short-circuit current — $I_{sc}$ (A)	13.93	11.25	14.00	11.31	14.08	11.38
Maximum power voltage — $V_{mp}$ (V)	21.27	19.91	21.46	20.09	21.68	20.30
Maximum power current — $I_{mp}$ (A)	13.16	10.59	13.26	10.67	13.38	10.77
Module efficiency — $\eta_m$ (%)	14.5		14.7		15.0	

**STC** (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C, Spectra at AM1.5

**NOCT** (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

## ELECTRICAL CHARACTERISTICS WITH DIFFERENT POWER BIN (REFERENCE TO 13.5% IRRADIANCE RATIO)

	310	315	321
Peak power ( $P_{max}$ ) (W)	310	315	321
Open circuit voltage ( $V_{oc}$ ) (V)	25.05	25.38	25.51
Short circuit current ( $I_{sc}$ ) (A)	15.43	15.51	15.60
MPP voltage — $V_{mp}$ (V)	21.27	21.46	21.68
MPP current — $I_{mp}$ (A)	14.58	14.69	14.83

## STRUCTURAL CHARACTERISTICS

Module dimensions (L*W*H)	1722 x 1134 x 30 mm
Weight	24.2 kg
Cell	72 cells, N-type monocrystalline
Front glass	2.0mm, anti-reflection coating
Back glass	2.0mm, heat strengthened glass
Frame	Anodized aluminum alloy (Silver/Black)
Junction box	IP68, 2 bypass diodes
Output wire	4.0 mm <sup>2</sup>
Wire length	300 mm or customized length
Connector	MC4 Compatible
Packaging specification	36 pcs/pallet; 936 pcs/40'HQ

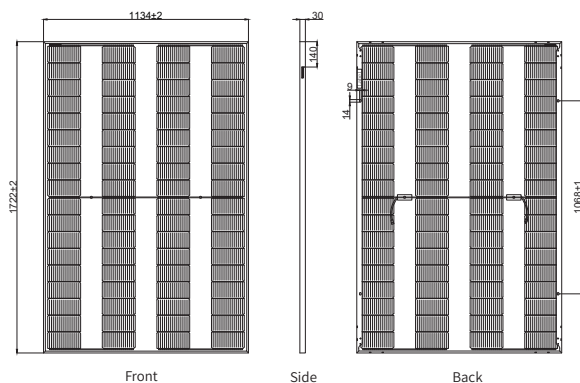
## OPERATING PARAMETERS

Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	30
Current operating temperature (°C)	-40~+85 °C
Mechanical load	5400 Pa * / 2400 Pa ∞

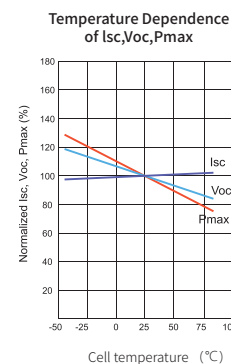
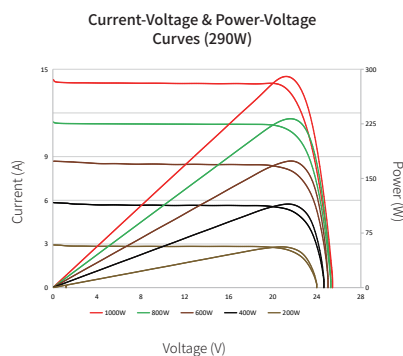
## TEMPERATURE PERFORMANCE RATINGS

TANGRA temperature coefficient ( $P_{max}$ )	-0.30 %/°C
Temperature coefficient ( $V_{oc}$ )	-0.28 %/°C
Temperature coefficient ( $I_{sc}$ )	+0.04 %/°C
Nominal operating cell temperature	43±2 °C

## MODULE DIMENSIONS (MM)



\* The unmarked tolerance is ±1 mm  
Length shown in mm



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Web: [www.sunovathornova.com](http://www.sunovathornova.com)

E-mail: [info@thornovasolar.com](mailto:info@thornovasolar.com)

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