



Tangra[™]L Pro HD

N-Type High efficiency Bifacial Dual Glass Module

TS-BGT66(600-620)-G11



Bifacial technology allows for the harvesting of up to an additional 30% energy from the rear side of the module.



30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.



N-type solar cell has no LID naturally which can increase power generation.



Excellent low irradiance performance.



Enhanced light trapping and optimized current collection contribute to the improvement of both module power output and reliability.



Industry leading lowest thermal coefficient of power.



Design optimized for lower operating current, resulting in minimized hot spot loss and improved temperature coefficient.



Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



100% triple EL test enables remarkable reduction of module hidden crack rate.

RE INSURANCE

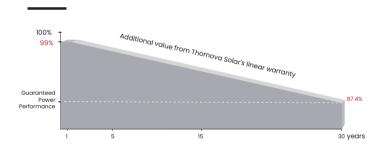
Warranty partner





^{*} Optional performance warranty insurance. Please contact our local sales staff for more information.

LINEAR PERFORMANCE WARRANTY



years

Product quality & process guarantee

30 years Linear power quarantee

U.4U_%
Annual degradation
Over 30 years

COMPREHENSIVE CERTIFICATES



ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

www.thornovasolar.com Made in Indonesia

^{*} Different markets have different certification requirements. Also, the products are under rapid innovation.

Please confirm the certification status with regional sales representatives.

ELECTRICAL CHARACTERISTICS



Model of modules	TS-BGT66(600)-G11		TS-BGT66(605)-G11		TS-BGT66(610)-G11		TS-BGT66(615)-G11		TS-BGT66(620)-G11	
	STC	NMOT								
Peak power - $P_{mp}(W)$	600	459	605	462	610	466	615	470	620	474
Open circuit voltage – $V_{\infty}(V)$	48.40	46.00	48.70	46.20	49.00	46.50	49.30	46.80	49.60	47.10
Short circuit current - $I_{sc}(A)$	15.80	12.73	15.83	12.75	15.86	12.78	15.89	12.81	15.92	12.84
MPP voltage - V _{mp} (V)	40.30	37.90	40.50	38.10	40.80	38.30	40.98	38.60	41.22	38.88
MPP current - I_{mp} (A)	14.91	12.11	14.94	12.13	14.96	12.16	14.98	12.18	15.03	12.20
Module efficiency - η_m (%)	22.2		22.4		22.6		22.8		23.0	

 $\textbf{STC} \quad \text{(Standard Testing Conditions): Irradiance 1000W/m^2, Cell Temperature 25 \, ^{\circ}\!\!\text{C}} \, , \\ \textbf{Spectra at AM1.5} \, \\ \textbf{NMOT} \, \text{(Nominal Module Operating Temperature): Irradiance 800W/m^2, Ambient Temperature 20 \, ^{\circ}\!\!\text{C}} \, , \\ \textbf{Spectra at AM1.5}, \text{Wind at 1m/s} \, \\ \textbf{Spectra at AM1.5}, \text{Wind 1m/s} \, \\ \textbf{Spectra at AM1.5}, \text{Wind 1m/s} \, \\ \textbf{Spectra at AM1.5}, \text{Wind 1m/s} \, \\ \textbf{Sp$

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

Peak power - P _{mp} (W)	666	670	676	680	686
Open circuit voltage - V _{oc} (V)	48.4	48.7	49	49.3	49.6
Short circuit current - $I_{sc}(A)$	17.51	17.54	17.57	17.61	17.64
MPP voltage - $V_{mp}(V)$	40.3	40.5	40.8	40.98	41.22
MPP current - I _{mp} (A)	16.52	16.55	16.58	16.6	16.65
Irradiance ratio (rear/front)			13.5%		

STRUCTURAL CHARACTERISTICS

Module dimension (L*W*H)	93.78 x 44.65 x 1.38 inch (2382 x 1134 x 35 mm)				
Weight	71.65 lbs (32.5 kg)				
Number of cells	132 cells				
Cell	N-type monocrystalline (7.17X8.27inch (182X210 mm))				
Glass	(F)2.0mm, Anti-Reflection Coating (B)2.0mm, Heat Strengthened Glass				
Frame	Anodized aluminum alloy				
Junction box	IP68, 3 bypass diodes				
Output wire	4.0 mm²				
Wire length (Including Connector)	(+): 400 mm, (-): 200 mm or Customized Length				
Connector	MC4 Compatible				
Packing specification	31 pcs/Pallet; 527 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~+185 °F (-40~+85 °C)		
Bifaciality	80±10 %		

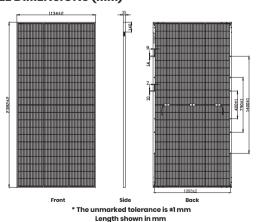
MECHANICAL LOADING

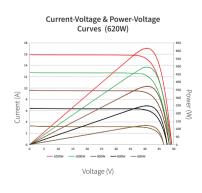
Front side maximum static loading (Pa)	5400
Rear side maximum static loading (Pa)	2400
Hailstone test (mm)	35

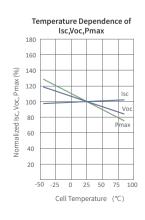
TEMPERATURE RATINGS

Temperature coefficient (P _{max})	-0.29 %/K
Temperature coefficient (V _{oc})	-0.28 %/K
Temperature coefficient (I _{sc})	+0.04 %/K
Nominal Module Operating Temperature	109.4±35.6 °F (43±2 °C)

MODULE DIMENSIONS (MM)









Scan the QR code to get more information

Web: www.thornovasolar.com

E-mail: info@thornovasolar.com

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