

TS-BGT78



Bifacial technology allows for the harvesting of up to an additional 25% 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.

current, resulting in minimized hot

Design optimized for lower operating



spot loss and improved temperature coefficient. Certified to withstand:



wind load (2400 Pa) and snow load (5400 Pa).



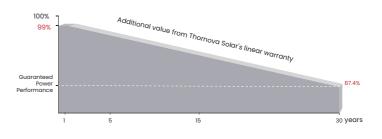
100% triple EL test enables remarkable reduction of module hidden crack rate.

RE INSURANCE



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

LINEAR PERFORMANCE WARRANTY



15 years Product quality & process guarantee

30 years Linear power guarantee **0.40**% Annual Degradation

COMPREHENSIVE CERTIFICATES



ISO 9001:Quality Management SystemISO 14001:Environmental Management System StandardISO 45001:International Occupational Health and
Safety Assessment System Standard

Different markets have different certification requirements. Also, the products are under rapid innovation. Please confirm the certification status with regional sales representatives.

For Canada

ELECTRICAL CHARACTERISTICS



Model of modules	TS-BGT78(600)		TS-BGT78(605)		TS-BGT78(610)		TS-BGT78(615)	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak power - P _{mp} (W)	600	447	605	451	610	454	615	458
Open circuit voltage - V _{oc} (V)	54.48	51.10	54.62	51.25	54.76	51.32	54.90	51.47
Short circuit current - $I_{sc}(A)$	13.84	11.128	13.89	11.22	13.97	11.29	14.01	11.32
MPP voltage - V _{mp} (V)	45.78	42.86	46.09	43.14	46.24	43.29	46.54	43.57
MPP current - $I_{mp}(A)$	13.11	10.43	13.13	10.45	13.19	10.50	13.21	10.52
Module efficiency - η_m (%)	21.5 %		21.7 %		21.8 %		22.0 %	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 $^\circ$ C , Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C , Spectra at AM1.5, Wind at 1m/s

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

Peak power - P _{mp} (W)	665	670	676	681
Open circuit voltage - V _{oc} (V)	54.48	54.62	54.76	54.90
Short circuit current - $I_{sc}(A)$	15.34	15.39	15.48	15.53
MPP voltage - $V_{mp}(V)$	45.78	46.09	46.24	46.54
MPP current - $I_{mp}(A)$	14.52	14.55	14.62	14.64
Irradiance ratio (rear/front)	13.5%			

STRUCTURAL CHARACTERISTICS

Module dimension (L*W*H)	2464 x 1134 x 35 mm (97.01 x 44.65 x 1.38 inch)
Weight	32.8 kg (72.31 lbs)
Number of cells	156 cells
Cell	N-type Monocrystalline 182x91 mm(7.17 x 3.58inch)
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 mm ²
Wire length	300mm/customized
Connector	MC4 / 1500 V
Packing Specification	31 pcs/Pallet; 527 or 558 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 ℃		
Mechanical load	5400 Pa / 2400 Pa		
Bifaciality	80±5%		

TEMPERATURE PERFORMANCE RATINGS

Current-Voltage & Power-Voltage

Curves (600W)

-600 -

400 -200

35 40 45 50

700

600

500

300

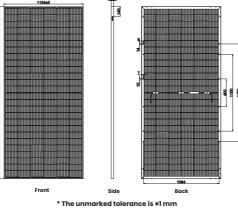
200

400 È

800 -

Temperature coefficient (P _{max})	−0.30 %/°C
Temperature coefficient (V_{oc})	−0.26 %/°C
Temperature coefficient (I_{sc})	+0.046 %/°C
Nominal operating cell temperature	43±2 °C





Length shown in mm



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* The parameters delineated within this datasheet, both technical and monetary, may exhibit variations contingent upon the region. Thornova Solar provides no warranty as to their absolute accuracy. Owing to our uncessing commitment to innovation, research, development, and product enhancement, Thornova Solar retains the discretion to amend any information encapsulated in this datasheet without any preceding notification. Clients are urged to procure the most recent iteration of this datasheet and incorporate it as an intrinsic component of the legally binding agreement ratified by both parties. The English rendition of this datasheet and incorporate it as an intrinsic component of the legally binding agreement ratified by both parties. The English rendition of this datasheet serves purely as a point of reference. Should discrete of in other languages, the stipulations of the English version stall take precedence.

10 15 20 25 30

Voltage (V)

1000

16

14

12

€ 10

Current 9 8



Isc

Voo

na:

Temperature Dependence

of Isc,Voc,Pmax

Cell Temperature (°C)

16

(%)

00