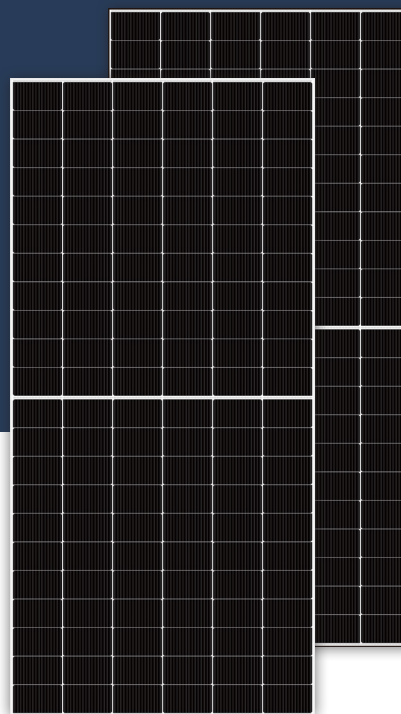


# Tangra™ L HD 600-620W

N-Type High efficiency Monofacial Single Glass Module



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

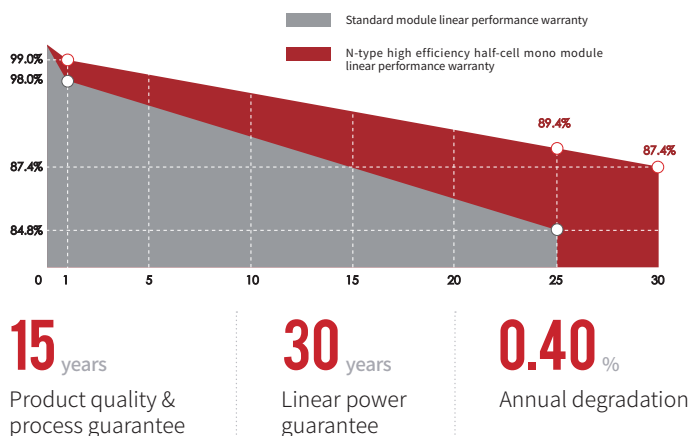


Certified to withstand 2400 Pa of wind load and 5400 Pa of snow load



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

## LINEAR PERFORMANCE WARRANTY



## COMPREHENSIVE CERTIFICATES



- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System Standard
- ISO 45001: International Occupational Health and Safety Assessment System Standard
- SA8000: 2014 Social Accountability Management System

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

## WARRANTY INSURANCE



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

## ELECTRICAL CHARACTERISTICS

Model of modules	TS-SWT66(600)-G11		TS-SWT66(605)-G11		TS-SWT66(610)-G11		TS-SWT66(615)-G11		TS-SWT66(620)-G11	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum power — $P_{mp}$ (W)	600	459	605	462	610	466	615	470	620	474
Open-circuit voltage — $V_{oc}$ (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
Maximum power voltage — $V_{mp}$ (V)	40.30	37.90	40.50	38.10	40.80	38.30	41.00	38.60	41.22	38.88
Maximum power current — $I_{mp}$ (A)	14.91	12.11	14.94	12.13	14.96	12.16	14.99	12.18	15.03	12.20
Module efficiency — $\eta_m$ (%)	22.2		22.4		22.6		22.8		23.0	
Power tolerance (W)	(0,+5)									
Maximum system voltage (V)	1500									
Maximum rated fuse current (A)	25									
Current operating temperature (°C)	-40~+85 °C									

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

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

## STRUCTURAL CHARACTERISTICS

Module dimensions (L*W*H)	2382x 1134 x 30 mm
Weight	28.5 kg
Number of cells	132 cells
Cell	N-type monocrystalline
Glass	Tempered, 3.2 mm AR, high transmittance, low iron
Frame	Anodized aluminum alloy (Silver/Black)
Junction box	IP68, 3 bypass diodes
Output wire	4.0 mm <sup>2</sup> , wire length: 300mm/1200mm/customized length
Connector	MC4 Compatible
Mechanical load	Snow load: 5400 Pa * / Wind load: 2400 Pa ∞

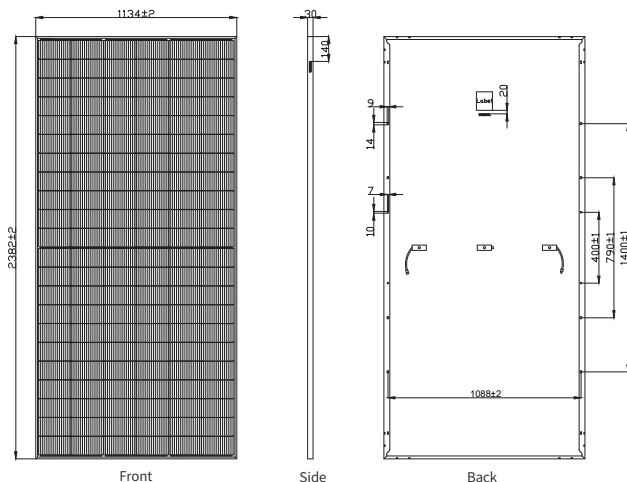
## TEMPERATURE PERFORMANCE RATINGS

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

## PACKAGING CONFIGURATION

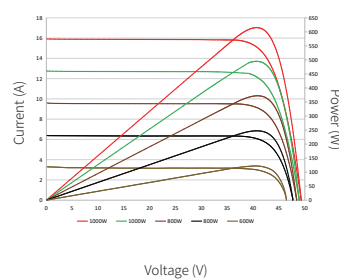
Container	40HQ
Quantity/pallet	36
Pallets/container	20
Quantity/container	720

## MODULE DIMENSIONS (MM)

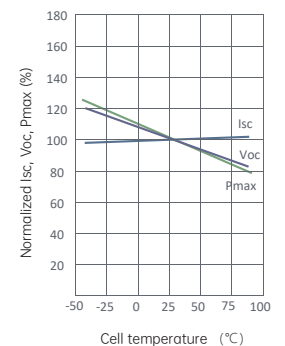


\* The unmarked tolerance is ±1 mm  
Length shown in mm

Characteristic curves (615W)



Temperature Dependence of  $I_{sc}, V_{oc}, P_{max}$



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

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