





Tangra[™]M Pro 570-590W

N-type Bifacial Double Glass Mono Module



Bifacial technology enables additional energy harvesting from rear side (up to 30%)



30-year lifespan delivers 10-30% more power 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

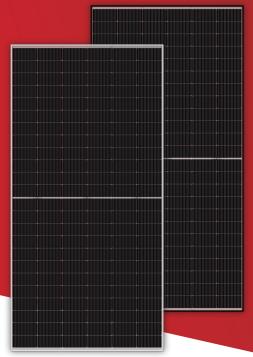


100% triple EL test, which greatly reduces the hidden cracks rate

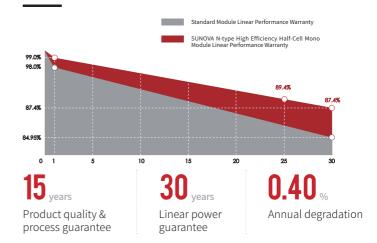
PERFORMANCE INSURANCE



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



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					
SA 8000:	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.



ELECTRICAL CHARACTERISTICS

Model of modules	SS-BG570-72MDH(T)		SS-BG575-72MDH(T)		SS-BG580-72MDH(T)		SS-BG585-72MDH(T)		SS-BG590-72MDH(T)	
	STC	NOCT								
Maximum power — $P_{mp}(W)$	570	424	575	428	580	432	585	436	590	439
Open-circuit voltage — V_{oc} (V)	50.47	47.64	50.90	48.05	51.19	48.32	51.21	48.34	51.24	48.37
Short-circuit current $-I_{sc}(A)$	14.01	11.32	14.03	11.34	14.06	11.36	14.14	11.42	14.26	11.52
Maximum power voltage — $V_{mp}(V)$	43.10	40.35	43.38	40.61	43.52	40.74	43.81	41.01	44.05	41.24
Maximum power current — I_{mp} (A)	13.22	10.52	13.25	10.54	13.33	10.61	13.36	10.63	13.38	10.65
Module efficiency $-\eta_m$ (%)	22	.07	22	.26	22	.45	22	.65	22	.84

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °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 _{max}) (W)	631	637	643	649	653
Open Circuit Voltage (V_{oc}) (V)	50.47	50.90	51.19	51.21	51.24
Short Circuit Current (I_{sc}) (A)	15.52	15.55	15.58	15.67	15.80
Maximum power voltage $-$ V _{mp} (V)	43.10	43.38	43.52	43.81	44.05
Maximum power current $-I_{mp}$ (A)	14.65	14.68	14.77	14.80	14.83

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	2278 x 1134 x 30 mm				
Weight	32.3 kg				
Cell	144 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, 3 bypass diodes				
Output wire	4.0 mm ²				
Wire length	300mm/1200mm/customized				
Connector	MC4 Compatible				
Packing Specification	36 pcs/Pallet; 720 pcs/40'HQ				

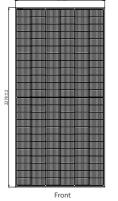
OPERATING PARAMETERS

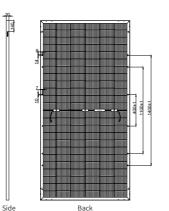
Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	30
Current operating temperature (°C)	-40~+85 °C
Mechanical load	5400 Pa / 2400 Pa

TEMPERATURE RATINGS

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Temperature coefficient (P _{max})	-0.30 %/°C
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Temperature coefficient (V _{oc})	-0.28 %/°C
Temperature coefficient (I _{sc})	+0.04 %/°C
Nominal operating cell temperature	43±2 ℃
Nominal Operating Cell temperature	43-2 0

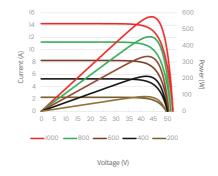
MODULE DIMENSIONS (MM)





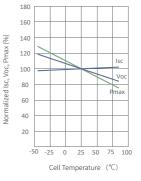
* The unmarked tolerance is ±1 mm Length shown in mm





Current-Voltage & Power-Voltage Curves (590W)

Temperature Dependence of Isc,Voc,Pmax



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* The technical parameters contained in this datasheet may deviate slightly, Surova Solar does not guarantee that they are completely accurate. Varying optional data could be for different regions or prices. Please contact commercial people for confirmation. Due to continuous innovation, research and development and product improvement, Surova Solar access the right to adjust the information in this datasheet at any time without prior notice. The customer should obtain the latest version of datasheet are for reference only. If there is any inconsistency between the English version and the Chinese version (or other language) translation is solar accession and the Chinese version (or other language) translation files of this datasheet are for reference only. If there is any inconsistency between the English version and the Chinese version (or other language) versions), the English version shall prevail.

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