





Zosma[™]L Pro 650-670W

High Efficiency Bifacial Dual Glass Mono Module



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



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

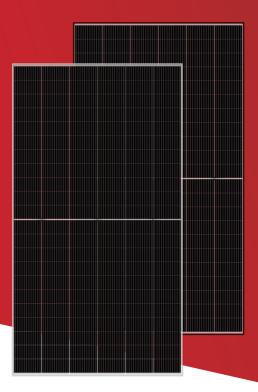


100% triple EL test, which greatly reduces the hidden cracks rate

PERFORMANCE INSURANCE



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



LINEAR PERFORMANCE WARRANTY



COMPREHENSIVE CERTIFICATES



IEC61215/IEC61730/IEC61701/IEC62716/ IEC62804/IEC60068/UL61730

- 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-BG650-66MDH-G12		SS-BG655-66MDH-G12		SS-BG660-66MDH-G12		SS-BG665-66MDH-G12		SS-BG670-66MDH-G12	
	STC	NOCT								
Maximum power — $P_{mp}(W)$	650	484	655	488	660	492	665	495	670	499
Open-circuit voltage — V_{oc} (V)	45.43	42.88	45.65	43.09	45.87	43.30	46.04	43.46	46.26	43.67
Short-circuit current $-I_{sc}(A)$	18.46	14.91	18.50	14.95	18.55	14.99	18.61	15.04	18.64	15.06
Maximum power voltage — $V_{mp}(V)$	37.49	35.10	37.67	35.26	37.88	35.46	38.05	35.62	38.24	35.80
Maximum power current — I_{mp} (A)	17.34	13.80	17.39	13.84	17.43	13.87	17.48	13.91	17.53	13.95
Module efficiency $-\eta_m$ (%)	20.92		21.09		21.25		21.41		21.57	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 $^{\circ}\text{C}$, 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)

Maximum power — P _{mp} (W)	712	717	723	728	734
Open-circuit voltage $-$ V _{oc} (V)	45.43	45.65	45.87	46.04	46.26
Short-circuit current $-I_{sc}(A)$	20.20	20.25	20.30	20.37	20.40
Maximum power voltage $- V_{mp}(V)$	37.49	37.67	37.88	38.05	38.24
Maximum power current — I_{mp} (A)	18.98	19.03	19.08	19.13	19.19

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	2384 x 1303 x 35 mm			
Weight	38.5kg			
Cell	132 cells, PERC 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	31 pcs/Pallet; 558 pcs/40'HQ			

OPERATING PARAMETERS

Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	35
Current operating temperature (°C)	-40~+85 °C
Mechanical load	5400 Pa / 2400 Pa

TEMPERATURE RATINGS

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Temperature coefficient (P _{max})	-0.33%/°C
Temperature coefficient (V_{oc})	-0.26 %/°C
Temperature coefficient (I_{sc})	+0.06 %/°C
Nominal operating cell temperature	43±2 ℃

(%) Xem4

Voc,

08 iso / 280

Temperature Dependence

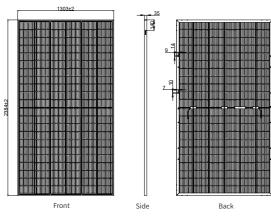
of lsc,Voc,Pmax

Cell Temperature (°C)

Isc

Vo

MODULE DIMENSIONS (MM)



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





⁴ The technical parameters contained in this datasheet may deviate slightly, Sunova 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, Sunova Solar reserves the right to adjust the information in this datasheet any time without prior notice. The customer should obtain the latest version of datasheet when signing the contract and make it an integral part of the binding contract signed by both parties. The Chinese (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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40 45

Current-Voltage & Power-Voltage

Curves (665W)

25 30 35

20