



Zosma[™] S Pro 400-420W

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

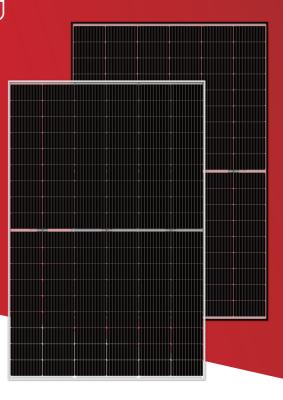


100% triple EL test, which greatly reduces the hidden cracks rate

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-BG40	0-54MDH	H SS-BG405-54MDH		SS-BG410-54MDH		SS-BG415-54MDH		SS-BG420-54MDH	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — P _{mp} (W)	400	298	405	302	410	306	415	310	420	313
Open-circuit voltage — V_{oc} (V)	37.18	35.10	37.33	35.24	37.68	35.57	37.79	35.67	38.00	35.87
Short-circuit current $- I_{sc}(A)$	13.39	10.82	13.44	10.86	13.59	10.98	13.72	11.08	13.80	11.15
Maximum power voltage $- V_{mp}(V)$	31.42	29.41	31.55	29.54	31.84	29.81	31.94	29.90	32.11	30.06
Maximum power current — I_{mp} (A)	12.74	10.14	12.84	10.22	12.88	10.25	13.01	10.35	13.09	10.42
Module efficiency $-\eta_m$ (%)	20.48		20.74		21.00		21.25		21.51	

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)	438	443	449	455	460
Open Circuit Voltage (V_{oc}) (V)	37.18	37.33	37.68	37.79	38.00
Short Circuit Current (I_{sc}) (A)	14.66	14.71	14.87	15.02	15.10
Maximum power voltage $- V_{mp}(V)$	31.42	31.55	31.84	31.94	32.11
Maximum power current $-I_{mp}$ (A)	13.94	14.05	14.10	14.24	14.33

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	1722 x 1134 x 30 mm
Weight	24.2kg
Cell	108 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	300 mm / 1200 mm or Customized Length
Connector	MC4 Compatible
Packing Specification	36 pcs/Pallet; 936 pcs/40'HQ

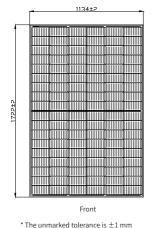
OPERATING PARAMETERS

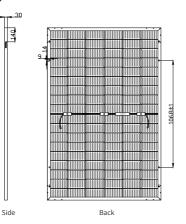
Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	30
Current operating temperature (°C)	-40~+85 °C
Mechanical load	5400 Pa / 2400 Pa

TEMPERATURE RATINGS

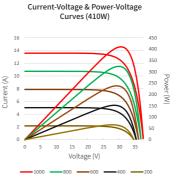
Temperature coefficient (P _{max})	-0.33 %/°C
Temperature coefficient (V_{oc})	-0.26 %/°C
Temperature coefficient (I_{sc})	+0.06 %/°C
Nominal operating cell temperature	43±2 ℃

MODULE DIMENSIONS (MM)

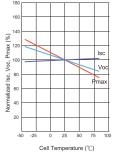




Web: www.sunova-solar.com



Temperature Dependence of lsc,Voc,Pmax



E-mail: info@sunova-solar.com

SUNOVA SOLAR Pv Tech Expert

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Length shown in mm