

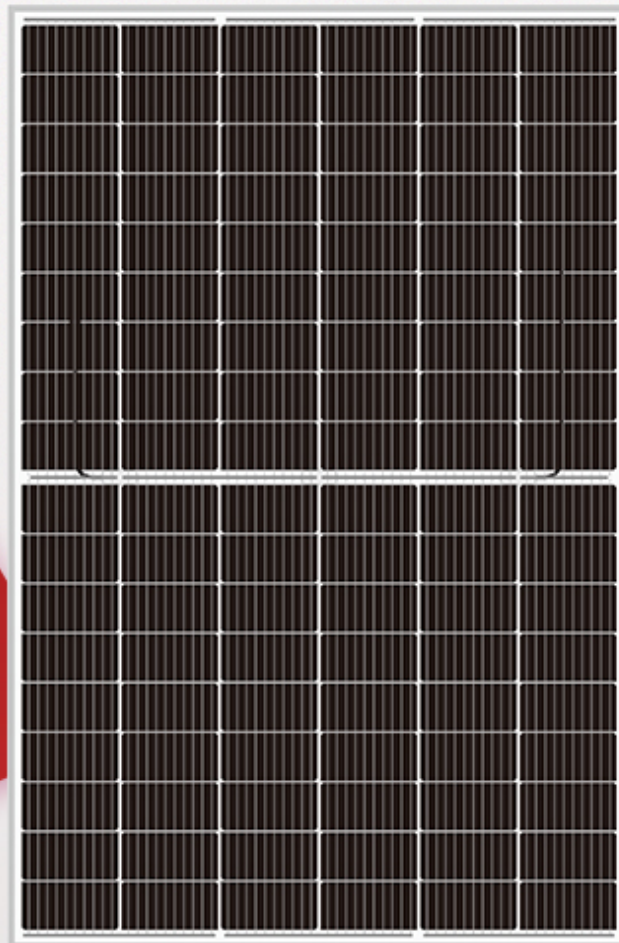


SUNOVA SOLAR

Leading one stop PV Supplier

Solar Module

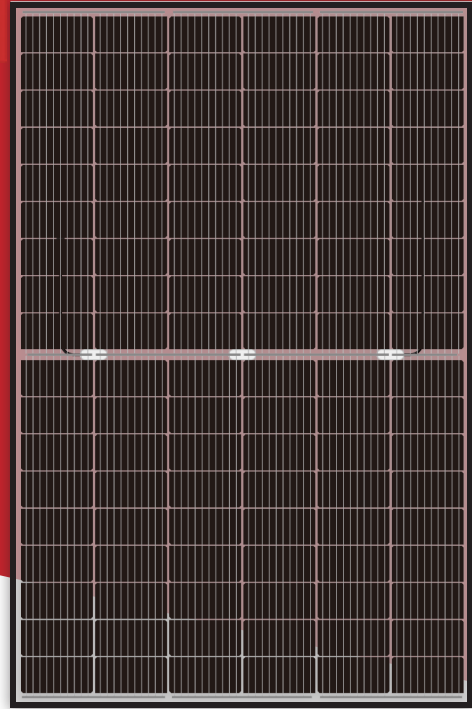
FULL BLACK DUAL GLASS



HI-KILO

400-415W

High Efficiency Bifacial Dual Glass Mono Module



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



Excellent low irradiance performance.



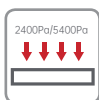
Better light trapping and current collection to improve module power output and reliability.



Industry leading lowest thermal co-efficient of power.



Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.

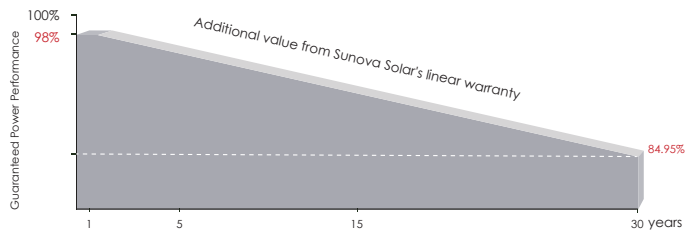


Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



100% triple EL test enabling remarkable reduction of hidden crack rate of modules

LINEAR PERFORMANCE WARRANTY



15 years

Product quality & process guarantee

30 years

Linear power guarantee

0.45 %

Annual Degradation Over 30 years

COMPREHENSIVE CERTIFICATES



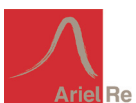
ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 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.

PERFORMANCE INSURANCE



中国平安

PING AN
P & C INSURANCE CO CN SZX

Model of modules	SS-BG400-54MDH		SS-BG405-54MDH		SS-BG410-54MDH		SS-BG415-54MDH	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — P_{mp} (W)	400	298	405	302	410	305	415	309
Open-circuit voltage — V_{oc} (V)	37.18	34.95	37.33	35.09	37.68	35.42	37.79	35.59
Short-circuit current — I_{sc} (A)	13.39	10.85	13.44	10.89	13.59	11.01	13.72	11.12
Maximum power voltage — V_{mp} (V)	31.42	29.22	31.55	29.35	31.84	29.61	31.94	29.72
Maximum power current — I_{mp} (A)	12.74	10.21	12.84	10.29	12.88	10.31	13.01	10.42
Module efficiency — η_m (%)	20.5%		20.7%		21.0%		21.3%	

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 DIERENT POWER BIN (REFERENCE TO 13.5% IRRADIANCE RATIO)

Maximum power — P_{mp} (W)	438	443	449	455
Open-circuit voltage — V_{oc} (V)	37.18	37.33	37.68	37.79
Short-circuit current — I_{sc} (A)	14.66	14.71	14.87	15.02
Maximum power voltage — V_{mp} (V)	31.42	31.55	31.84	31.94
Maximum power current — I_{mp} (A)	13.94	14.05	14.10	14.24
Irradiance ratio (rear/front)	13.5%			

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	1722 x 1134 x 35 mm
Weight	25.5 kg
Number of cells	108 cells
Cell	PERC Monocrystalline 182x91 mm
Glass	2.0 mm High Transmission, Antireflection Coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output wire	4.0 mm ²
Wire length	300 mm or Customized Length
Connector	MC4 Compatible
Packing Specification	31 pcs/Pallet; 806 pcs/40'HQ

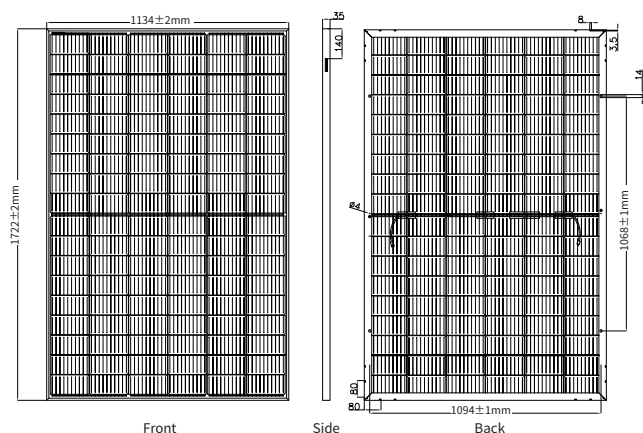
OPERATING PARAMETERS

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

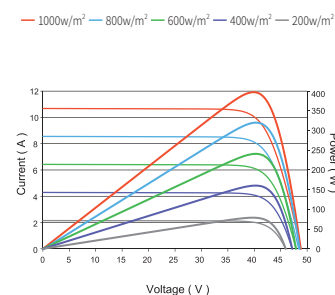
TEMPERFORMANCE RATINGS

Temperature coefficient (P_{max})	-0.310 %/°C
Temperature coefficient (V_{oc})	-0.260 %/°C
Temperature coefficient (I_{sc})	+0.046 %/°C
Nominal operating cell temperature	42±2 °C

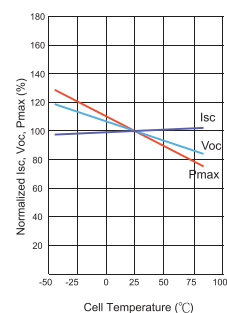
MODULE DIMENSIONS (MM)



Current-Voltage & Power-Voltage Curves (400W)



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



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