



Design optimized for lower operating current, resulting in minimized hot spot loss and improved temperature coefficient.



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



100% triple EL test
enables remarkable reduction of
module hidden crack rate.

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.

ELECTRICAL CHARACTERISTICS

2x72_{cells}

Model of modules	SGN-590-BDG1	
	STC	NMOT
Peak power - P_{mp} (W)	590	452
Open circuit voltage - V_{oc} (V)	52.35	50.12
Short circuit current - I_{sc} (A)	13.90	11.20
MPP voltage - V_{mp} (V)	44.40	42.51
MPP current - I_{mp} (A)	13.29	10.63
Module efficiency - η_m (%)	22.8	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5

NMOT (Nominal Module Operating 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_{mp} (W)	654
Open circuit voltage - V_{oc} (V)	52.35
Short circuit current - I_{sc} (A)	15.40
MPP voltage - V_{mp} (V)	44.40
MPP current - I_{mp} (A)	14.72
Irradiance ratio (rear/front)	13.5%

STRUCTURAL CHARACTERISTICS

Module dimension (L*W*H)	89.69 x 44.65 x 138 inch (2278 x 1134 x 35 mm)
Weight	69.45 lbs (31.5 kg)
Number of cells	144 cells
Cell	N-type monocrystalline (M10)
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Anodized aluminum alloy
Junction box	IP68 rated (3 diodes)
Output wire	4mm ² (IEC)12 AWG (UL)
Wire length (including Connector)	+400/-200mm (+15.75/-7.87in.)or customized
Connector	MC4 Compatible
Pieces per Pallet	31 pcs/Pallet
Pieces per Container (Normal/Weight-limited area)	720/576 pcs/40HQ

OPERATING PARAMETERS

Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	30
Current operating temperature (°C)	-40~+85 °F (-40~+85 °C)
Bifaciality	80±10 %
Fire performance	Type 29

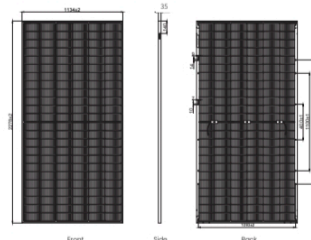
MECHANICAL LOADING

Front side maximum static loading (Pa)	5400
Rear side maximum static loading (Pa)	2400
Hailstone test (mm)	40

TEMPERATURE RATINGS

Temperature coefficient (P_{max})	-0.29 %/K
Temperature coefficient (V_{oc})	-0.28 %/K
Temperature coefficient (I_{sc})	+0.04 %/K
Nominal Module Operating Temperature	109.4±35.6 °F (43±2 °C)

MODULE DIMENSIONS (MM)



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

