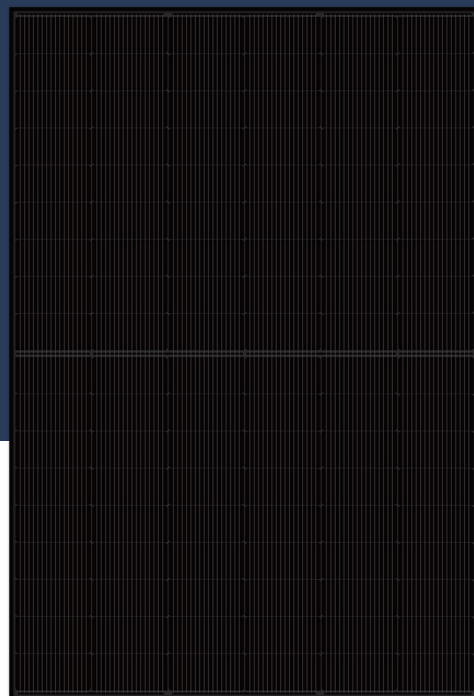




N-Type High efficiency Monofacial Single Glass Module

SGN-440-SW5



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

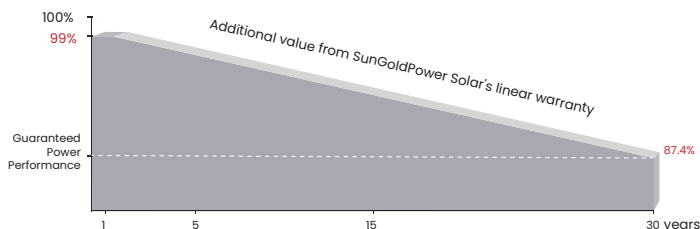


Certified to withstand 2400 Pa of windload and 5400 Pa of snow load



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

LINEAR PERFORMANCE WARRANTY



up to **12** years
Product quality & process guarantee

30 years
Linear power guarantee

0.40 %
Annual degradation Over 30 years

COMPREHENSIVE CERTIFICATES



UL61730 Certified by ETL, CEC Listed

ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

ELECTRICAL CHARACTERISTICS

2x54 cells

Model of modules SGN-440-SW5

	STC	NMOT
Maximum power — P_{mp} (W)	440	328
Open-circuit voltage — V_{oc} (V)	39.03	36.84
Short-circuit current — I_{sc} (A)	13.73	11.09
Maximum power voltage — V_{mp} (V)	33.48	31.34
Maximum power current — I_{mp} (A)	13.15	10.46
Module efficiency — η_m (%)	22.5	
Power tolerance (W)	(0,+5)	
Maximum system voltage (V)	1500	
Maximum rated fuse current (A)	25	
Current operating temperature (°C)	-40~+85 °C	

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

STRUCTURAL CHARACTERISTICS

Module dimension (L*W*H)	67.80 x 44.65 x 1.38 inch (1722 x1134 x 35 mm)
Weight	46.30 lbs (21.0 kg)
Number of cells	108 cells
Cell	N-type monocrystalline (M10)
Glass	Tempered, 3.2 mm AR, High transmittance, Low iron
Backsheet	Transparent black mesh backsheet
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)	806/806 pcs/40'HQ

OPERATING PARAMETERS

Power tolerance (W)	(0,+5)
Maximum system voltage (V)	1500
Maximum rated fuse current (A)	25
Current operating temperature (°C)	-40~+85 °F (-40~+85 °C)
Maximum Permissible Module Temperature (T_2 8 max):	185 °F (85 °C)
Module Fire Performance	Type 29 according to ANSI/UL 61730
Safety Class	Class II

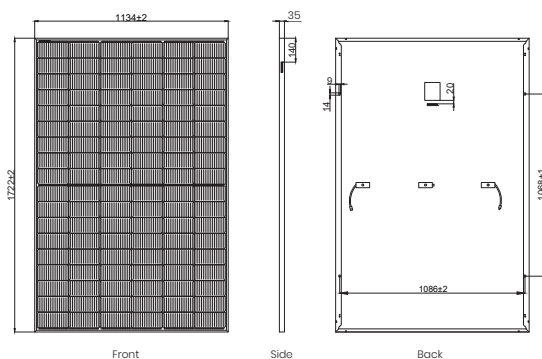
MECHANICAL LOADING

Front side maximum static loading (Pa)	5400
Rear side maximum static loading (Pa)	2400
Hailstone test (mm)	35

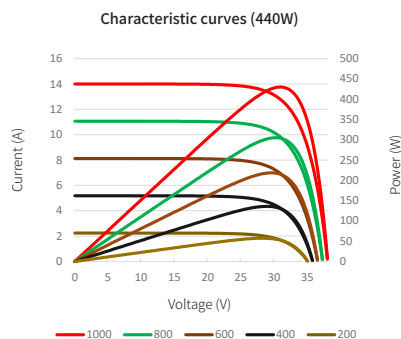
TEMPERATURE RATINGS

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

MODULE DIMENSIONS (MM)



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



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

