



SUNNIVA

460N-FB-BF-GG

460W, Cells 108



Bifacial Fullblack Glass Glass

N-Type TOPCon Module

Max Power Out: 460W
Bifacial Max Power: 598W
Module Efficiency: 23.0%



SMBB Technology

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



Higher Reliability

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



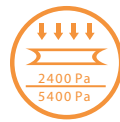
Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Reduced Hot Spot Loss

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



Enhanced Mechanical Load

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

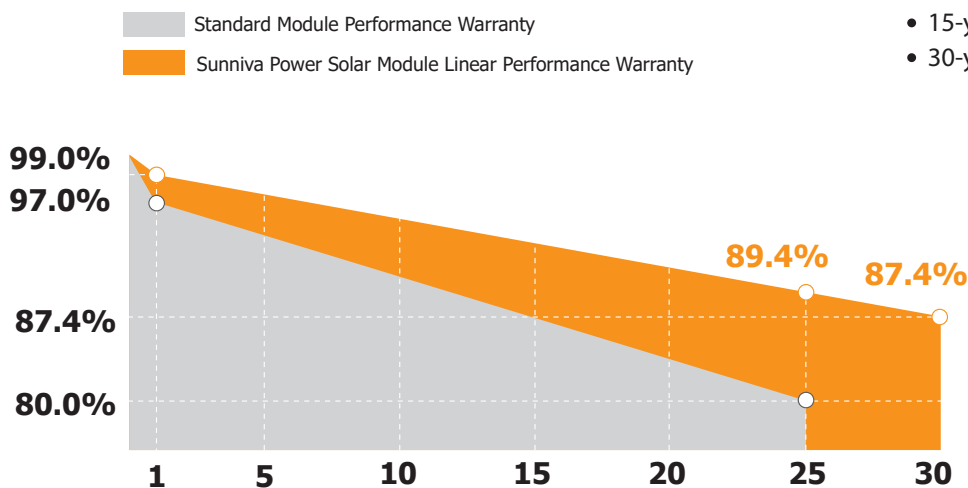


High Energy Generation, Low LCOE

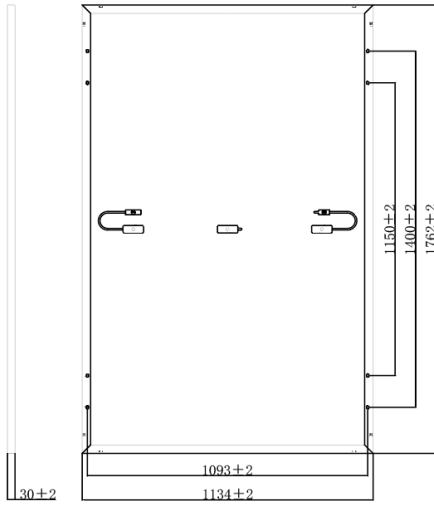
Low Pmax temp coefficient increases energy production.

Superior Warranty

- 15-year material & technology warranty
- 30-year linear power output warranty



Engineering Drawings



Structural Parameter

Dimensions of Module	1762x1134x30mm
Weight	24kg
J-Box	IP68, three diodes
Glass	2.0mm Fully strengthened glass on front and back
Frame	Anodized aluminium alloy
Cable	4mm ² , +1300mm/-1300mm
Wind/ Snow Load	a
Connector	MC4 Compatible
Cell Orientation	108 (6x18)

Electrical Specification

Module Type: SUNNIVA 460N-FB-BF-GG

Testing Condition: STC NOCT

Maximum Power (Pmax) [W]: 460 345

Bifacial Max Power: 598 448

Maximum Power Voltage (Vmp) [V]: 33.85 32.41

Maximum Power Current (Imp) [A]: 13.59 10.63

Open Circuit Voltage (Voc) [V]: 39.37 37.70

Short Circuit Current (Isc) [A]: 14.35 11.59

Module Efficiency [%]: 23.00

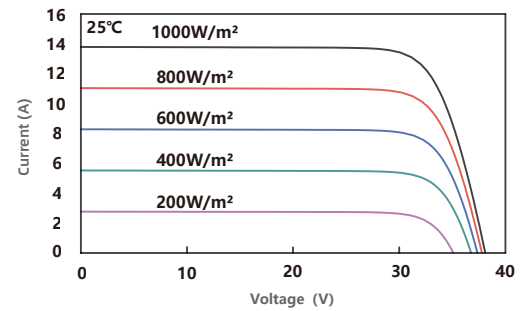
Operational Temperature [°C]: -40°C ~ +85°C

Maximum System Voltage: 1500VDC

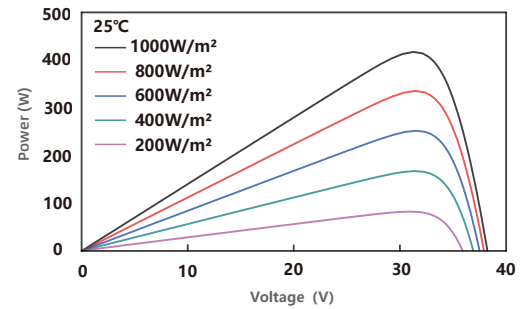
Max Series Fuse Rating: 25A

STC: Irradiance 1000W/m², Cell temperature 25°C, AMG1.5G
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1m/s

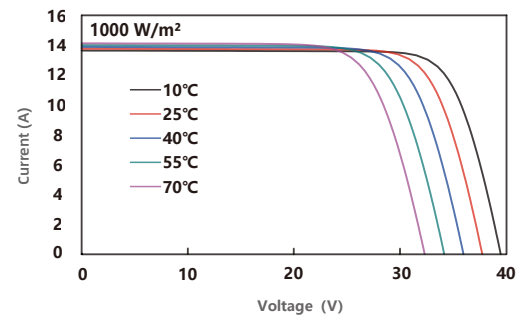
Curve Diagram



I-V Characteristics At Different Irradiations



P-V Characteristics At Different Irradiations



I-V Characteristics At Different Temperatures

Temperature Ratings

Nominal Operating Cell Temperature: 42 ± 2°C

Temperature Coefficient of Isc: + 0.045 %/°C

Temperature Coefficient of Voc: - 0.250 %/°C

Temperature Coefficient of Pmax: - 0.280 %/°C