

BC MONO

450 - 470 Watt Total Black



Key features

- ✓ Passed IEC 5400 Pa mechanical loading test.
- ✓ The modules can withstand high wind-pressure, snow loads and extreme temperatures.
- ✓ Our high performing modules have an industry low tolerance of 0±5%.
- ✓ Our solar cells offer high conversion efficiency to ensure the highest quality.
- ✓ Highest quality with our cells.

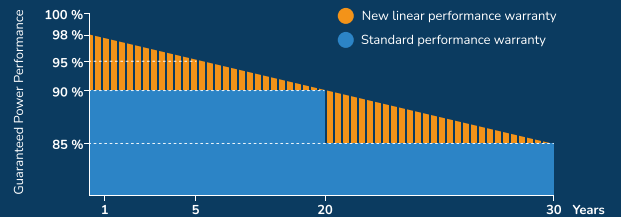


Quality and safety

- ✓ Industry leading power output warranty
20 years / 90%
30 years / 85,2%
- ✓ 30-year warranty on materials & workmanship
- ✓ Fire test: Class 1



Premium performance warranty



Applications



On-grid residential roof-tops



On-grid commercial-industrial roof-tops

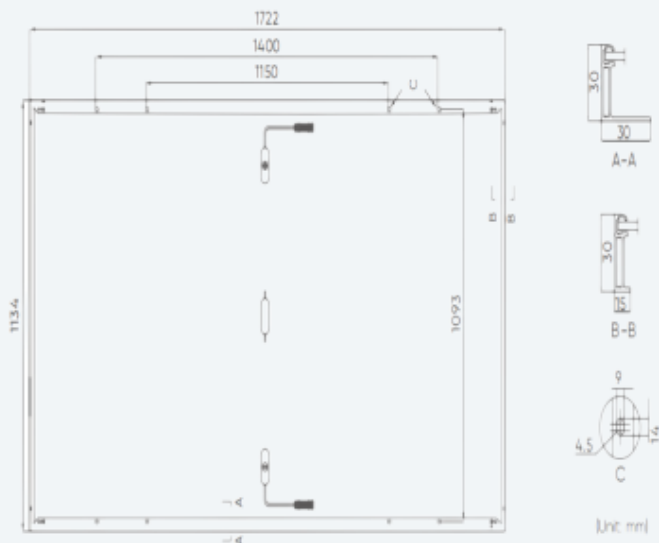


Solar power plants

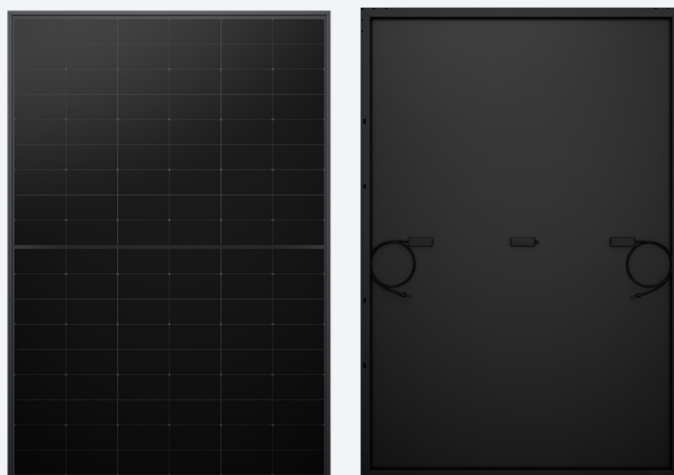


Off-grid systems

Engineering drawings



Product image



Electrical characteristics

Module Type	SNG450M-108	SNG455M-108	SNG460M-108	SNG465M-108	SNG470M-108
TESTING CONDITION ⁽¹⁾	STC ⁽²⁾ /NMOT ⁽³⁾	STC ⁽²⁾ /NMOT ⁽³⁾	STC ⁽²⁾ /NMOT ⁽³⁾	STC ⁽²⁾ /NMOT ⁽³⁾	STC ⁽²⁾ /NMOT ⁽³⁾
Maximum Power (Pmax)	450Wp/337Wp	455Wp/345Wp	460Wp/349Wp	465Wp/352Wp	470Wp/356Wp
Maximum Power Voltage (Vmp)	33.96V/30.99V	34.15V/32.05V	34.34V/32.23V	34.53V/32.41V	34.72V/35.59V
Maximum Power Current (Imp)	13.26A/10.88A	13.33A/10.76A	13.40A/10.82A	13.47A/10.87A	13.54A/10.93A
Open-circuit Voltage (Voc)	40.23V/37.77V	40.45V/38.64V	40.68V/38.85V	40.90V/39.07V	41.13V/39.29V
Short-circuit Current (Isc)	14.31A/11.55A	14.38A/11.61A	14.46A/11.67A	14.54A/11.74A	14.61A/11.79A
Module Efficiency (%)	23.04%	23.30%	23.55%	23.81%	24.06%
Operating Temperature (°C)	-40°C± ~ +85°C				
Maximum system voltage	1500V				
Maximum series fuse rating	25A				
Power tolerance	±5%				
Temperature coefficients of Pmax	-0.29%/°C				
Temperature coefficients of Voc	-0.23%/°C				
Temperature coefficients of Isc	0.05%/°C				
Nominal operating cell temperature (NOCT)	45±2°C				

Mechanical data

Cell type	BC Technology (182x91mm)
No. of cells	108 (6x18)
Dimensions	1722x1134x30mm
Weight	20.8 kg
Front Glass	BC Technology
Frame	Anodized Aluminium Alloy Total Black
Junction Box	IP68 Rated
Output Cables	TUV: 1x4.0mm ² UL 12AWG Length: 1100mm or customized length
Connectors	Copper, Silver Plated, MC 4

Packaging configuration

Dimensions	30mm
No. of pieces per pallet	36
Total number of pallets	26
Module quantity per 40'container (pcs)	936

(1) Measurement Tolerances: Pmax (+/- 5%), Isc & Voc (+/- 5%) - Power Classification 0/+5%

(2) STC (Standard Testing Condition): Irradiance 1000w/m², Cell Temperature 25°C, AM 1.5

(3) NMOT (Nominal Operating Module Temperature): Irradiance 800/m², NMOT. Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

STC/NMOT



Irradiance 1000W/m² / 800W/m²



Module Temperature 25°C



AM = 1.5