



HC MONO

480 - 500 Watt

Black Frame



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.

Highest quality with our cells.
16MBB Top Con Technology

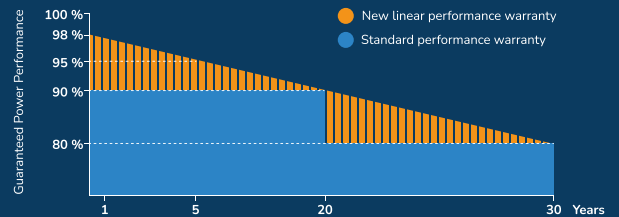


Quality and safety

- ✔ Industry leading power output warranty
20 years / 90%
30 years / 80%
- ✔ 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



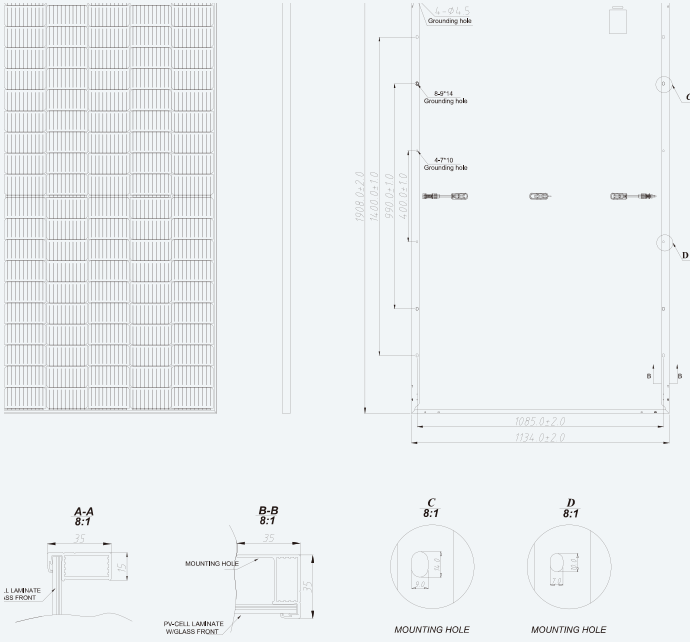
Solar power plants



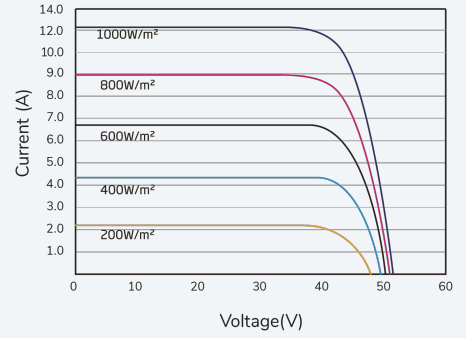
Off-grid systems

Engineering drawings

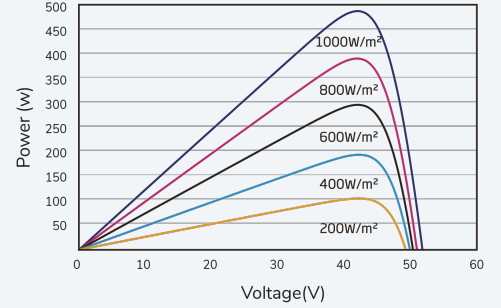
Electrical performance & temperature dependence



I-V CURVES OF PV MODULE (480W)



P-V CURVES OF PV MODULE (480W)



Electrical characteristics

Mechanical data

Module Type	SNG480M-120	SNG485M-120	SNG4900M-120	SNG495M-120	SNG500M-120
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 at STC (Pmax)	480Wp/348Wp	485Wp/351Wp	490Wp/354Wp	495Wp/357Wp	500Wp/360Wp
Maximum Power Voltage (Vmp)	42.90V/38.48V	43.10V/38.58V	43.30V/38.68V	43.50V/38.78V	43.70V/38.88V
Maximum Power Current (Imp)	11.18A/9.05A	11.25A/9.10A	11.32A/9.16A	11.39A/9.21A	11.46A/9.26A
Open-circuit Voltage (Voc)	50.30V/45.74V	50.50V/45.77V	50.70V/45.80V	50.90V/45.83V	51.10V/45.86V
Short-circuit Current (Isc)	11.64A/9.65A	11.70A/9.71A	11.76A/9.77A	11.82A/9.83A	11.88A/9.89A
Module Efficiency (%)	21.08%	22.31%	22.54%	22.77%	23%
Operating Temperature OC		-40°C ± ~ +85°C			
Maximum system voltage		1500V			
Maximum series fuse rating		20A			
Power tolerance		0±5%			
Temperature coefficients of Pmax		-0.35%/°C			
Temperature coefficients of Voc		-0.28%/°C			
Temperature coefficients of Isc		0.048%/°C			
Nominal operating cell temperature (NOCT)		45±2°C			

Cell type	Top Con Technology
No. of cells	120 (2x60)
Dimensions	1909x1134x30 mm
Weight	23.5kg
Front Glass	3.2 anti-reflective
Frame	Anodized Aluminium Alloy Black Frame
Junction Box	IP68 Rated
Output Cables	TUV: 1x4.0mm ² UL 12AWG, Length: 1400mm or customized length
Connectors	Copper, Silver Plated, MC 4

Packaging configuration

Dimensions	1909x1134x30 mm
No. of pieces per pallet	36
Total number of pallets	24
Module quantity per 40' container	864

(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 800W/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