

# HC MONO 420 Watt Red 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  $0\pm 5\%$ .
- Our solar cells offer high conversion efficiency to ensure the highest quality.
- Highest quality with our cells.

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16 MBB Half Cut N-Type Technology

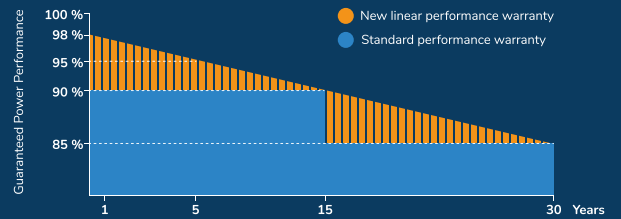


## Quality and safety

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



## Premium performance warranty



## Applications



On-grid residential roof-tops



On-grid commercial-industrial roof-tops

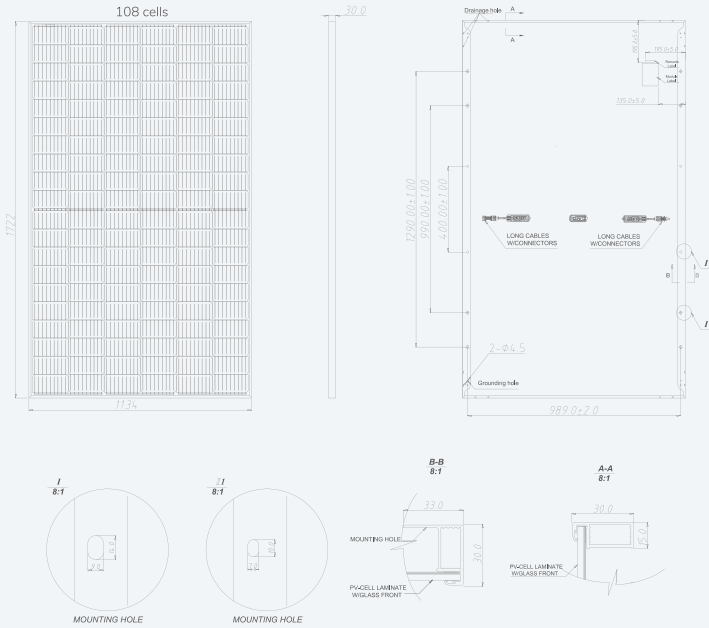


Solar power plants



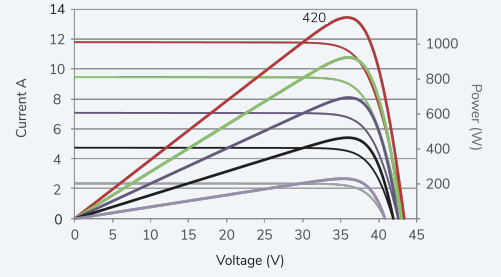
Off-grid systems

# Engineering drawings

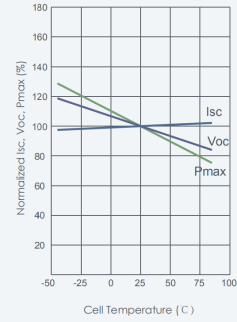


# Electrical performance & temperature dependence

Current-Voltage & Power-Voltage Curves (420W)



Temperature Dependence of Isc, Voc, Pmax



# Electrical characteristics

Module Type	SNG420M-108
<b>TESTING CONDITION<sup>(1)</sup></b>	<b>STC<sup>(2)</sup>/NMOT<sup>(3)</sup></b>
Maximum Power (Pmax)	420Wp/318Wp
Maximum Power Voltage (Vmp)	32.48V/30.49V
Maximum Power Current (Imp)	12.94A/10.44A
Open-circuit Voltage (Voc)	39.31V/37.55V
Short-circuit Current (Isc)	13.66A/11.03A
Cell Efficiency	23.7%
Module Efficiency (%)	21.5%
Operating Temperature °C	-40°C± ~ +85°C
Maximum system voltage	1500V
Maximum series fuse rating	25A
Power tolerance	0±5%
Temperature coefficients of Pmax	-0.29%/°C
Temperature coefficients of Voc	-0.25%/°C
Temperature coefficients of Isc	0.045%/°C
Nominal operating cell temperature (NOCT)	45±2°C

# Mechanical data

Cell type	Half Cut N-Type Technology (182x91mm)
No. of cells	108 (2x54)
Dimensions	1722x1134x30mm
Weight	30mm : 19.5kg 35mm: 20kg
Front Glass	3.2 mm anti-reflective
Frame	Anodized Aluminium Alloy Red Frame
Junction Box	IP68 Rated
Output Cables	TUV: 4.0mm <sup>2</sup> UL 12AWG Length: 1100mm or customized length
Connectors	Copper, Silver Plated, MC 4

# Packaging configuration

Dimensions	30mm	35mm
No. of pieces per pallette	36	31
Total number of pallettes	26	28
Module quantity per 40'container (pcs)	936	868

(1) Measurement Tolerances: Pmax (+/- 5%), Isc & Voc (+/- 5%) - Power Classification 0/+5%  
 (2) STC (Standard Testing Condition): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM 1.5  
 (3) NMOT (Nominal Operating Module Temperature): Irradiance 800/m<sup>2</sup>, NMOT, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

STC/NMOT

Irradiance 1000W/m<sup>2</sup> / 800W/m<sup>2</sup>

Module Temperature 25°C

AM = 1.5