


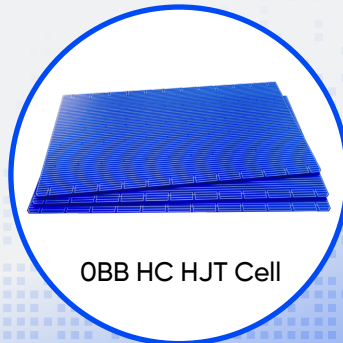


120HC-G12-GG HJT

# American Made

## 680W

Heterojunction X3 (HJT)  
Bifacial Half Cut Cells  
by  **Hybrid Cell**  
Technology



## Developing Technology for America's Future.

### Designed with Power, Performance, Reliability and Affordability in Mind.

A module designed and manufactured to meet the demands of the US Markets. We have optimized our products to support our customers' path to success by lowering the LCOE and maximizing your returns.



### HJT X3 Bifacial Half Cut Cells

25.5%+ efficient n-type HJT Cells featuring zero-busbar (OBB) VHF-PECV deposited  $\alpha$ -SiOx:H(i) and microcrystalline mc-Si(Ox):H(n/p) layers.\*



### 35 yr Performance & 20 yr Product Warranties

We stand behind our product with our module reliability and a company warranty. The result is a system that can yield you up to 45% more power under our warranty vs. our competitors 25yrs.



### US Domestic Content Certified

Our sister company (Hybrid Cell Technology) manufactures the HJT cells in the same facility as our modules qualifying them for the 40% ITC (investment tax credit).



### -0.27%/C Pmax Temp. Coefficient

The lower temperature coefficient of HJT cells produces a module that operates more efficiently, producing more power in high temperature environments.



### Zero Busbar (OBB) interconnection Technology

Improved reliability, with up to 15X more connection points verses traditional busbar modules, by reducing microcracking and hotspot effects.

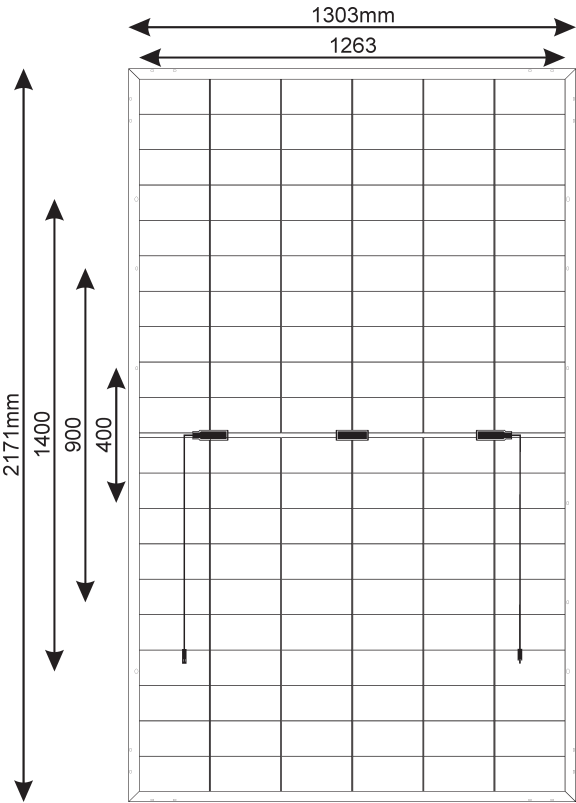


### Higher Reliability and Maximum Power

Designed for maximum power output over time, with fewer performance issues. LID and PID free results in an increase in power of up to 9% more than p-type PERC modules after 25 yrs.

680W  
Maximum Power Output

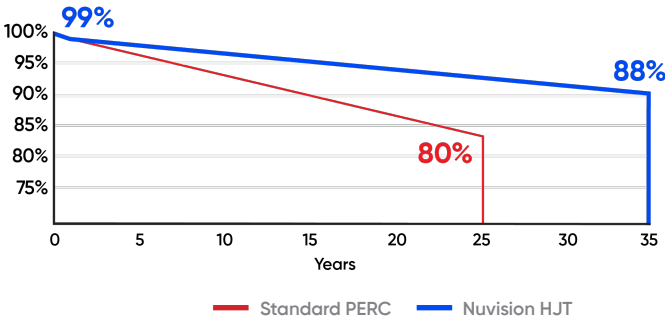
24.0%  
Module Efficiency



Product  
Warranty



Performance  
Warranty



Model Types: 120HC-G12 HJT

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Pmax is within +/- 3%, AM=1.5

Nominal Power (-0/+5%)-Pmp (W)	640	650	660	670	680
Efficiency (%)	22.5	22.9	23.2	23.5	23.8
Maximum Power Voltage-Vmp ( V)	38.30	38.35	38.48	38.68	38.87
Maximum Power Current-Imp (A)	16.83	17.02	17.2	17.34	17.52
Open Circuit Voltage-Voc (V)	44.6	44.7	45.1	45.3	45.9
Short Circuit Current-Isc (A)	17.79	17.97	18.06	18.16	18.24
Maximum System Voltage-Vsys (V)	1500	1500	1500	1500	1500

Electrical Data

(NMOT): 45°C (800W/m<sup>2</sup>, 20°C air temperature, AM 1.5, 1m/s wind speed)

Nominal Power-Pmp (W)	480	487	495	502	509
Maximum Power Voltage-Vmp (V)	35.0	35.5	35.9	36.4	36.9
Maximum Power Current-Power (A)	13.0	13.74	13.78	13.84	13.89
Open Circuit Voltage-Voltage ( V)	42.1	42.5	42.8	43.4	43.48
Short Circuit Current (A)	14.78	14.83	14.89	14.95	14.99

BSTC

Back side reflection irradiation 135W/m<sup>2</sup> AM=1.5, 25°C ambient air temperature

Nominal Power-Pmp (W)	704	715	726	737	748
Maximum Power Voltage-Vmp (V)	42.18	42.25	42.36	42.34	42.56
Maximum Power Current-Imp (A)	16.74	16.86	16.98	17.1	17.22
Open Circuit Voltage-Voc (V)	50.15	50.17	50.19	50.2	50.23
Short Circuit Current-Isc (A)	18.54	18.62	18.7	18.78	18.86

Temperature Characteristics

Module Operating Temperature Range (°C)	-40 to +85
Nominal Module Operating Temperature (NMOT) (°C)	45 +/-2
Temperature Coefficient of Power (%/C)	-0.27
Temperature Coefficient of Voltage (%/C)	-0.25
Temperature Coefficient of Current (%/C)	0.05

Mechanical Description

Module Dimensions (mm)	2171 × 1303 × 35
Area (m2)	2.82
Module Weight (kg / lb)	37.4 / 83.1
Output Cables (can be customized to length)	4mm2 (12 AWG), 0.6m length
Connectors	MC4
Junction Box with or without Micro Inverter	Potted, 1500V x 3 bypass diodes (30A); IP68 rated
Cell Type made by Hybrid Cell Technology	Bifacial G12 HJT
Cell Configuration	120 Half Cut
Frame Material (Aluminum or Steel)	Clear or Black anodized
Front Glass	1.6 mm AR Coated
Back Glass	1.6 mm AR Coated
Fire Type	Type 1
Load Rating	5400Pa (Front) 2400Pa (Rear)

Packaging Information

Module Count	Modules per 53' Truck	Modules per 40' HT Container
Modules Per Pallet	28	33
Pallet Quantity	22	18
Total Module Quantity	616	594

Module and Cell  
Made in the USA



Notice: All data and specifications are preliminary and subject to change without notice. NuVision Solar, reserves the right to make any adjustment to the information in this document described herein at any time without notice. Pre-release.