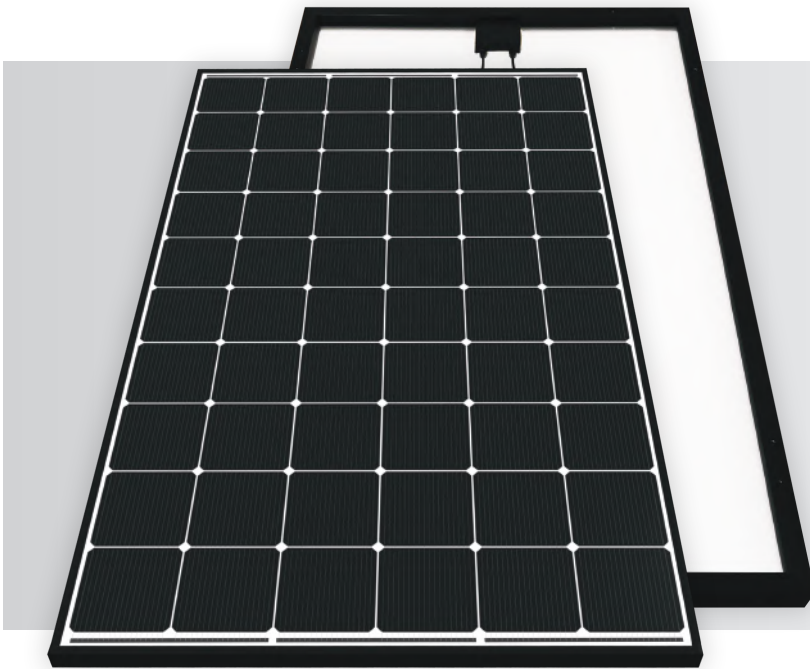


**60 CELL HETEROJUNCTION SOLAR PANEL
WITH SMARTWIRE TECHNOLOGY**

up to **325W**



**Smartwire
Technology**

**Bi-facial
Heterojunction Cells**

American Premium



SMART FEATURES



Superior Energy Production

Module efficiency up to **19.9%** achieved by utilizing the most advanced technology in the solar industry.



SmartWire Technology (SWT)

The revolutionary process for connecting solar cells that outperforms busbars by spreading the electric current through 18 micro-wires.



Advanced HJT Technology

This cell combines the advantages of N-type crystalline silicon with the excellent absorption and passivation of amorphous silicon.



Exceptional at Low-Light Conditions

The round shape of SmartWire reduces shading by 25% and introduces a light trapping effect.



Remarkable Connection Durability

SWT acts as a protective layer for the solar cell, ensuring reliable contact points for decades of consistent performance.



Industry Leading Warranty

HJT cells, based on N-type silicon results in extremely low LID & PID, reducing annual degradation and guaranteeing more power.

Electrical Characteristics STC

	HJT - Black on White - 310	HJT - Black on White - 315	HJT - Black on White - 320	HJT - Black on White - 325
Average Power	310W	315W	320W	325W
Max Module Efficiency (%)	19.0%	19.3%	19.6%	19.9%
Voltage at Max power (Vmp)	36.7V	37.0V	37.3V	37.6V
Current at Max power (Imp)	8.5A	8.5A	8.6A	8.7A
Open Circuit Voltage (Voc)	43.6V	44.0V	44.3V	44.7V
Short Circuit Current (Isc)	9.1A	9.2A	9.2A	9.3A
Operating Module Temperature	-40°C - 85°C			
Maximum System Voltage	1000V DC (UL)			
Maximum Series Fuse	20A			
RatingPower Sorting	-0/+5W			

*STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Best in Class AAA solar simulator used, power measurement uncertainty is within +/- 3%

NOCT

	310W	315W	320W	325W
Max. Power at NOCT (Pmax)	237.3W	241.2W	245.0W	248.8W
Voltage Max. Power (Vmp)	34.7V	35.0V	35.2V	35.5V
Current Max. Power (Imp)	6.8A	6.9A	7.0A	7.0A
Open Circuit Voltage (Voc)*	41.5V	41.8V	42.2V	42.5V
Short Circuit Current (Isc)*	7.3A	7.4A	7.4A	7.5A

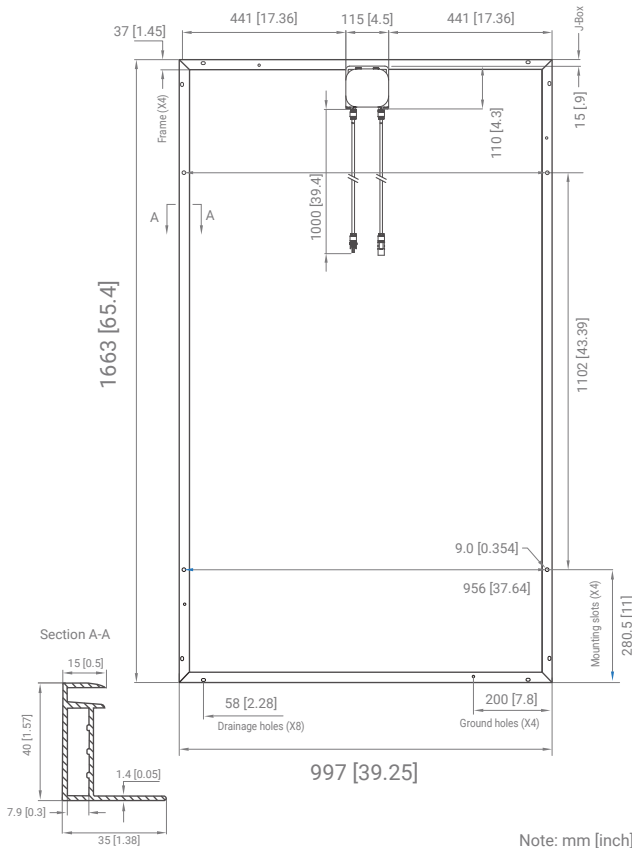
*NOCT: 800 W/m² Irradiance, 20 °C ambient temperature, AM=1.5, wind speed 1 m/s
 Values are based on RETC certified results from a light-soaked module.

Temperature Characteristics

Nominal Operating Cell Temp. (NOCT)	46.06°C
Temperature Coefficient of Pmax	-0.25 %/°C
Temperature Coefficient of Voc	-0.237 %/°C
Temperature Coefficient of Isc	+0.035 %/°C

Mechanical Characteristics

Laminate Structure	Glass / TPO / Cells / TPO / Backsheet
Weight	Approx. 18 kg [40lbs]
Cell Type	60 cells (Serial)
Cell Connection	Heterojunction N-Type (156.75mm)
Junction Box	IP65/IP67 with 3 Bypass Diodes
Cables Length	1m [39.4 in]
Connectors Type	MC4
Module Dimensions	997 x 1663 x 40mm [39.25 x 65.4 x 1.65]
Encapsulant	(TPO) Hydrophobic
Front Load (Snow)	5400 Pa / 112.8 Psf
Rear Load (Wind)	3800 Pa / 79.4 Psf
Collection Pathways	18 Micro-wires
Glass Thickness	3.2mm [.125] Anti-reflective Tempered Solar Glass (≥94% Transmittance)



CEC Testing Results

	HJT - Black on White - 310	HJT - Black on White - 315	HJT - Black on White - 320	HJT - Black on White - 325
Maximum Power at PTC	294.3W	299.1W	304W	308.75W
PTC Percentage of STC	94.8%	94.9%	94.9%	95%

Shipping Configurations

	GP *	HC	Trailer
Container Length	20'	40'	53'
Pallets Per Container	12	24	36
Modules Per Pallet	20	23	23
Modules Per Container	240	552	828

* Extended lead time required. International transport only.

Certifications & Warranty

Safety	UL1703
Modules Fire Performance	Type 2 (UL1703)
Product Warranty	15 Years
Performance Warranty of Pmax	30 Years Linear*

*1st year 97%, 30th year 80%. Details of these warranties can be found at www.solartechuniversal.com, under "Downloads"