

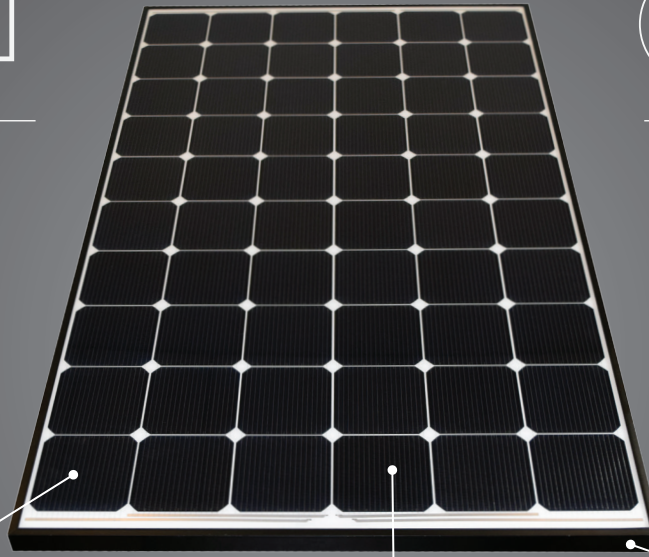
# 60 CELL MONO-CRYSTALLINE PERC SOLAR MODULE WITH SMARTWIRE

300W  
MONO-PERC

QUANTUM  
SERIES



CERTIFICATIONS:  
IEC61215  
IEC61730  
UL1703  
Conformity to CE



SmartWire Technology lessens the effects of micro-fractures and shading

Mono-crystalline PERC Busbar-less cells

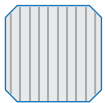
Anodized aluminum frame (Space Black or Metallic Silver)

## SMART FEATURES



### Superior Energy Production

Module efficiency up to 18.4% achieved by utilizing the most advanced technology in the solar industry.



### SmartWire Technology (SWT)

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



### Advanced PERC Technology

An advanced mono-crystalline cell which improves energy production by adding a special layer to capture more sunlight.



### Exceptional at low-light Conditions

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



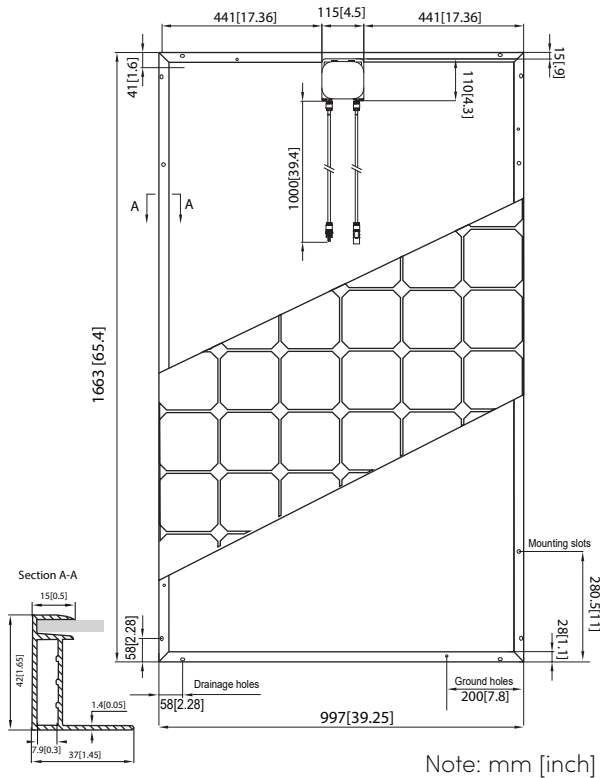
### Remarkable Connection Durability

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



### Industry Leading Warranty

Accomplished with superior materials proven to perform better against potential induced degradation (PID).



### Mechanical Characteristics

Laminate Structure	Glass / TPO / Cells / TPO / Backsheet
Weight	Approx. 18 kg [40lbs]
Cell Type [mm]	156.75 x 156.75 Mono-crystalline PERC
Cell connection	60 cells (serial)
Junction Box (Electrical)	3 bypass (Tyco) IP65/IP67
Connection Cable (Electrical)	Tyco Solar 4mm <sup>2</sup> ( 1m length each )
Electrical Connectors	Tyco PV4
Dimensions	997 x 1663 x 42mm [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)

1800 President Barack Obama Highway  
 Riviera Beach, FL 33404

Phone: (561) 440-8000  
 Fax: (561) 503-4141

info@solartechuniversal.com  
 www.solartechuniversal.com

### Electrical Characteristics STC

	Quantum Series 290 PERC	Quantum Series 295 PERC	Quantum Series 300 PERC
Average Power	290W	295W	300W
Max Module Efficiency (%)	17.8%	18.1%	18.4%
Voltage at Max power (Vmp)	32.0V	32.3V	33.4V
Current at Max power (Imp)	9.0A	9.1A	9.3A
Open Circuit Voltage (Voc)	39.7V	40.4V	41.1V
Short Circuit Current (Isc)	9.6A	9.7A	9.8A
Operating Module Temperature	-40°C → 85°C		
Maximum System Voltage	1000V DC ( IEC + UL )		
Maximum Series Fuse Rating	20A		
Power Sorting	-0/+5W		

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5; Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

### NOCT

	290W	295W	300W
Max. Power at NOCT (Pmax)	208W	211.6W	215.2W
Voltage Max. Power (Vmp)	29.7V	30.2V	30.7V
Current Max. Power (Imp)	7.1A	7.2A	7.4A
Open Circuit Voltage (Voc)*	38.2V	38.3V	38.7V
Short Circuit Current (Isc)*	7.5A	7.7A	7.8A

NOCT: 800 W/m<sup>2</sup> Irradiance, 20 °C ambient temperature, AM=1.5, wind speed 1 m/s  
 Values are based on TUV/PTL certified results from a light-soaked module.

### Temperature Characteristics

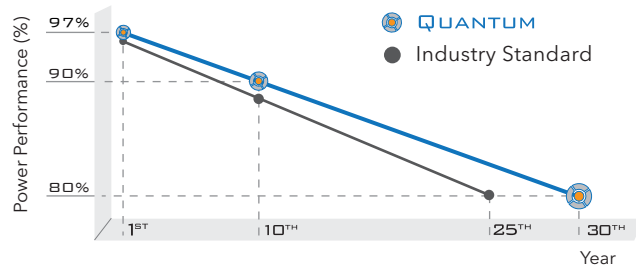
Nominal Operating Cell Temp. (NOCT)	45.7°C
Temperature Coefficient of Pmax	-0.4079 %/°C
Temperature Coefficient of Voc	-0.2845 %/°C
Temperature Coefficient of Isc	+0.0406%/°C

NOCT: 800 W/m<sup>2</sup> Irradiance, 20 °C ambient temperature, AM=1.5, wind speed 1 m/s;  
 NOCT values are based on TUV/PLC CEC certified results. Based pm a 290w module

### Maximum Power at PTC

265.2w	269.7w	274.3w
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### Warrantied Power Performance



### Packing Configuration

Equipment	20' GP	53' Trailer
Modules per pallet	20	23
Pallets per unit	12	36
Modules per unit	240	828

IN PARTNERSHIP WITH

