The QSS by QSOLAR

About the QSOLAR QSS

The QSS range, built with high-efficiency crystalline silicon cells, is 75% thinner and 10% lighter than conventional glass modules, yet every bit as powerful and significantly more durable.

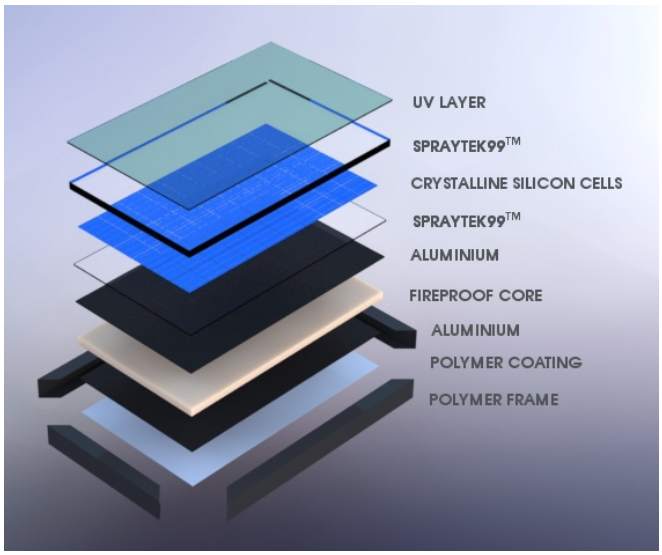
HST - Heat Sink Technology

Since the inception of solar cells and solar panels, there has been an ongoing effort to increase efficiency. The main effort was concentrated in increasing the efficiency of solar cells, something which was achieved but with a significant increase in cost. In general, high-efficiency cells are up to 25% more expensive than lower-efficiency cells, although even then the final panel output does not change; only the panel area changes.

A higher-efficiency panel requires less area than a lower-efficiency panel to produce the same power. The differences in area are usually of the order of 5%, something that is insignificant in most cases.

QSOLAR developed its second-generation panels by incorporating a heat sink in the substrate, without increasing the cost. As a result, QSOLAR panels run cooler than glass panels, especially in hot climates. QSOLAR HST reduces the temperature of the cells in a solar panel by up to 10°C in comparison to glass panels. In this way, QSOLAR panels produce up to 5% more power than any other glass panel with the same type of cells. To put it a simpler way, instead of increasing the cell efficiency at a higher cost, QSOLAR has increased the efficiency of the end product, the solar panel, without any increase in the cost at all. And this is applicable to panels using any type of cell.

- The world's thinnest framed module
- New Heat Sink Technology
- No EVA, no TPT and no glass
- 10x the impact strength of glass
- 10% lighter than glass panels
- PID-free
- 10-year product warranty
- Available in any color



COMPONENTS NOT TO SCALE

QSOLAR modules are encapsulated with our patented SPRAYTEK99® material, which offers better protection than glass and EVA. Using this material, we are able to produce lightweight, flexible, impenetrable panels with no exposed metal parts, of any size, any power and any colour.

Model	QS 210 QSS	QS 250 QSS	QS 270 QSS	QS 300 QSS
General Specifications				
Length (mm)	1509	1667	1825	1983
Width (mm)	1000	1000	1000	1000
Depth (mm)	9	9	9	12
Weight (kg)	16.1	17.8	19.5	27.5
Number of Cells	54	60	66	72
Electrical Specifications				
Pmax (W)	210	250	270	300
Vmp (V)	27.7	31.6	34.3	37.9
Imp (A)	7.87	8.14	8.05	8.14
Voc (V)	33.5	37.9	41.3	45.4
Isc (A)	8.46	8.68	8.6	8.68
Module Efficiency	13.9%	15.0%	14.8%	15.1%
Number of Bypass Diodes	3	3	3	3
Power Tolerance	+5%			
Maximum System Voltage (V)	1000			
Fuse Rating (A)	15			
Component Data				
Cell Type	Polycrystalline silicon			
Cell Dimensions (mm)	156 x 156			
Frame	Ultrathin polymer			
Encapsulant	Spraytek99® ESS®			
Backsheet	Aluminium Composite Heat-Sink			
Junction Box	IP67 Class II (IEC/UL Certified)			
Output Cables	1.2 m, 6 mm² PV Cable (IEC/UL Certified)			
Connectors	MC4 IP67 (IEC/UL Certified)			
Temperature Coefficients				
Pmax (%/°C)	-0.43			
Vmp (%/°C)	-0.43			
Imp (%/°C)	-0.019			
Voc (%/°C)	-0.32			
Isc (%/°C)	+0.04			

Local Distributor Information:

About QSOLAR

QSOLAR is a leading innovator in solar panel technology, bringing about the first major change in solar panel manufacturing since the inception of the industry some 60 years ago. Visit WWW.QSOLAR.NET to find out more.

QSOLAR Limited is a Canadian company headquartered in Calgary (Alberta) and listed on the Canadian Stock Exchange (CSE) under the symbol QSL (www.cnsx.ca).

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