

Adhesive Solar greenhouse series

36 CELLS 5BB
MONO-CRYSTAL MODULES

160-180W
POWER OUTPUT

10.9%
MAXIMUM EFFICIENCY

30 YEARS
linear performance warranty

10 YEARS
product warranty

Qingdao RaySolar New Energy Co.,Ltd.(RaySolar), founded in February,2012 and located in Jimo Solar Industrial Park Qingdao city with an area of 400 mu, is a high and new technology enterprise integrating R&D, production and sales. RaySolar is mainly engaged in production and sales of double-glass solar modules, as well as development and construction of distributed power stations.

RaySolar focuses on production and sales of double-glass solar modules and is equipped with automatic production lines with a total annual capacity of 500MW. In addition, its products have obtained the Double-Glass Top-Runner Certification, TÜV, UL, China Compulsory Certification (CCC) of the construction industry, etc.

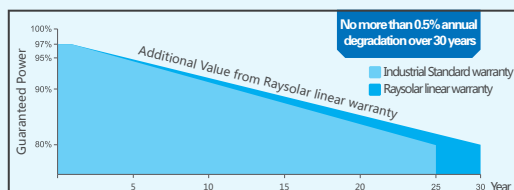
RaySolar adheres to the development concept of "Product-Centric and Service-Oriented", and it is in alliance with upstream suppliers, terminal construction contractors, and back-end service (operation and maintenance) providers to create an outstanding "ecosystem" that can demonstrate the advantages of double glass. Meanwhile, Raysolar will provide the financing platform for the customers, aiming at achieving the closed-loop promotion of the PV industry chain through the financial supply chain.

Solar makes life better!

Certification



Linear Performance Warranty



Unique Layout design to match the adhesive installation

- Unique design can meet the sunroom' s requirements with excellent light transmittance and waterproof.



Excellent durable reliability performance

- Excellent PID resistance.
- No micro-cracks, free of snail tracks.



Excellent withstand harsh environmental conditions and safety performance

- Resistant to high temperature and humidity,sand, acid and alkali.
- 5400 Pa snow load, 2400 Pa wind load.
- Passed hail test with 35mm hail stones at 97 km/h.
- Class A fireproofing rating.



High return on investment

- 1500 V system voltage reduces BOS costs.
- 0.5% annual degradation, 30 year linear warranty.
- Frameless design, less dust or snow pilling up, low maintenance cost.



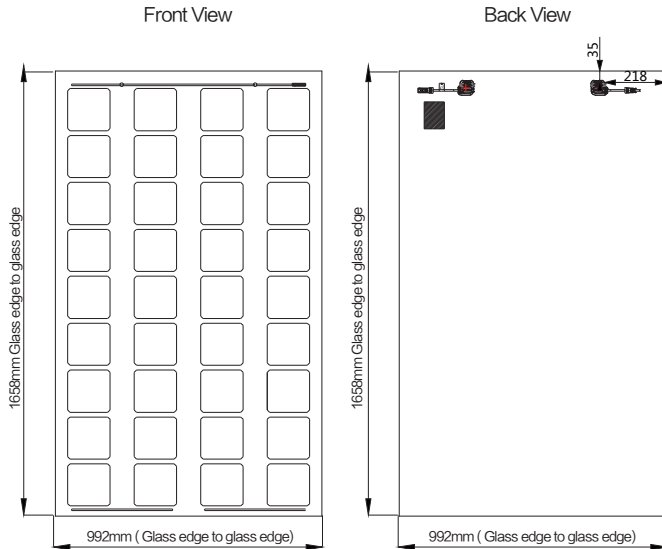
40% transmittance modules

Qingdao Raysolar New Energy Co.,Ltd

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Engineering drawing



Mechanical Specifications

Cell Type	Mono crystalline (156.75mm*156.75mm)
Solar Cells	36(4*9)
Module Dimension [mm]	1658*992*6
Weight [Kg]	23.0
Front Glass [mm]	25 (Low iron semi tempered coated glass)
Interlayer	EVA/POE/PVB
Back Glass [mm]	2.5 (Float semi tempered glass)
Junction Box	IP67 Rated, 3 by-pass diodes
Connector	Multi-Contact MC4(or equivalent)
Frame	No frame
Maximum Load Capacity [Pa]	2400(wind load)/ 5400(snow load)

Electrical Characteristics

			DM36-160	DM36-165	DM36-170	DM36-175	DM36-180
STC: Air Mass AM1.5, Ir-radiance 1000W/m ² Cell temperature 25°C	Maximum Power at STC [Pmax]	[W]	160	165	170	175	180
	Open Circuit Voltage [Voc]	[V]	23.28	23.52	23.74	23.96	24.18
	Short Circuit Current [Isc]	[A]	8.75	8.93	9.11	9.29	9.47
	Voltage at Maximum Power point[Vm]	[V]	18.92	19.16	19.39	19.62	19.85
	Current at Maximum Power point[Im]	[A]	8.46	8.61	8.77	8.93	9.09
	Power Tolerance	[%]	0~+3%				
	Module Efficiency	[%]	9.7	10.0	10.3	10.6	10.9
NOCT: Air Mass AM1.5, Ir-radiance 800W/m ² Ambient temperature 20°C, wind speed 1m/s.	Maximum Power at NOCT [Pmax]	[W]	118	122	126	130	134
	Open Circuit Voltage [Voc]	[V]	21.53	21.75	21.95	22.15	22.36
	Short Circuit Current [Isc]	[A]	7.06	7.20	7.35	7.49	7.64
	Voltage at Maximum Power point[Vm]	[V]	17.19	17.41	17.62	17.83	18.04
	Current at Maximum Power point[Im]	[A]	6.89	7.01	7.14	7.27	7.40
	Power Tolerance	[%]	0~+3%				

Scope of Work

Maximum System Voltage	[V]	1000 DC(IEC)or1500 DC(IEC)
Operating Temperature	[°C]	-40~+85
Nominal Operating Cell Temperature	[°C]	45±3
Maximum rated current	[A]	15

Temperature Coefficients

Temperature Coefficient of Pmax	[%/°C]	-0.42
Temperature Coefficient of Voc	[%/°C]	-0.33
Temperature Coefficient of Isc	[%/°C]	0.04

Package Configuration

per box 36 pieces	40" HQ 936 pieces
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Electrical curves

