

Made in Michigan for the World We Live In

Let us help you with:
Design & Installation
Energy Assessments
Energy Consulting
Energy Monitoring



Contractors Building Supply, Inc.

A Green Company

Since 1991



Assembled and tested in Michigan for the
USA solar industry
By Contractors Building Supply

A LEADING MANUFACTURER OF PV MODULES

ABOUT US

Sonali Solar is a leader in the photovoltaic market arena with an unprecedented reputation. We are committed to providing a superior product, timely delivery and exceptional customer service. As a manufacturer of photovoltaic modules we can ensure that our clients receive a highly efficient product along with excellent pricing. We are dedicated to quality, innovation and improved efficiency as we pursue solar energy expansion around the world. Sonali Solar is a global company with customers in the US, Asia-Pacific and European markets. Our corporate headquarters is located in northern New Jersey and we own and operate a state-of-the-art manufacturing facility in India.

OUR MISSION

To work towards establishing solar energy as a primary source for all commercial and residential properties throughout the US. This is an opportunity for each community to use a clean renewable energy as their main source of electricity. We don't need to rely on unsustainable fossil fuels any longer. Now is the time to thrive on the planet's abundant supply of renewable energy. This will not only transform our economy but will ensure a brighter future for the next generations. We are pleased to announce that we now have assembly and testing facility in Northern Michigan.

CBS has been approved for Michigan Renewable Energy Certification System (MIRECS) credits. Section 39(2)(d) of 2008 PA 295 allows for an additional one-tenth of a renewable energy credit to be created "for each megawatt hour of electricity generated from a renewable energy system contracted using equipment made in Michigan as determined by the Commission. The section also states the additional credit "is available for the first three years after the renewable energy system first produces electricity on a commercial basis."



Sonali Solar Panels are Tested and Assembled in Northern Michigan

Quality Product

All manufactured modules are tested 100% by EL (Electroluminescence) during the production process. Our high-performance modules are highly efficient, reliable and provide optimal output.

High Efficiency

High module efficiency is obtaining top performance even in diffused light conditions. We are leaders in providing our customers with maximum sunlight conversion efficiency.

Application Possibilities

Residential and commercial rooftops, carports, awnings, balconies, solar farming, streetlights, fences and canopies.

From 3w-300w, our panels fit every need from small residential to large commercial. We can help you decide which size fits your needs. For product specifications visit our website at www.windowsswindandsolar.com

CBS offers design and feasibility studies upon request.

Product Capacity

Sonali Solar is the leading manufacturers of photovoltaic modules in India. Our state-of-the-art manufacturing facility is automated to ensure product quality. We have a 50MW capacity and we plan to add another 40MW automated line by 2013. CBS is one of the leading manufacturers of solar products in Michigan.



Electrical Specifications

Nominal Maximum Power (P _{max})	230W	240W	250W
Optimum Operating Voltage (V _{mp})	30	30	30
Optimum Operating Current (I _{mp})	7.67	8	8.33
Open Circuit Voltage (V _{oc})	36	36.6	37.2
Short Circuit Current (I _{sc})	8.1	8.3	8.45

* Maximum System Voltage : 1000 V

* Measurement Power Tolerance on Power $\pm 3\%$, 0 \pm Tolerance on Max power Available upon request.

* Under Standard Test Conditions (STC) of irradiance of 1000W/m², spectrum AM 1.5 and cell temperature of 25 °C

Mechanical Specification

Module Dimensions	(1640 X 981 X 40 mm) / (64.57 X 38.62 X 1.57 inch)		
Weight	19kgs / 41.89lbs		
Junction Box	Protection Class IP65 with Bypass diodes		
Cable & Connectors	Solar Cable 900mm length with 4.0mm ² double Insulated Cable, Multi Contact connector		
Cell Arrangement	60 (6 X 10)		
Front Cover	3.2mm Tempered Glass		
Encapsulate	EVA		
Back Cover	Composite Sheet		
Frame	Silver Matt Finished Anodized frame, Anodizing Coating Thickness $\geq 16 \mu\text{m}$		

Temperature Coefficients

	α	β	λ
Coefficient of Current	(0.060 %/°C)		
Coefficient of Voltage	(-0.35 %/°C)		
Coefficient of Power	(-0.45 %/°C)		

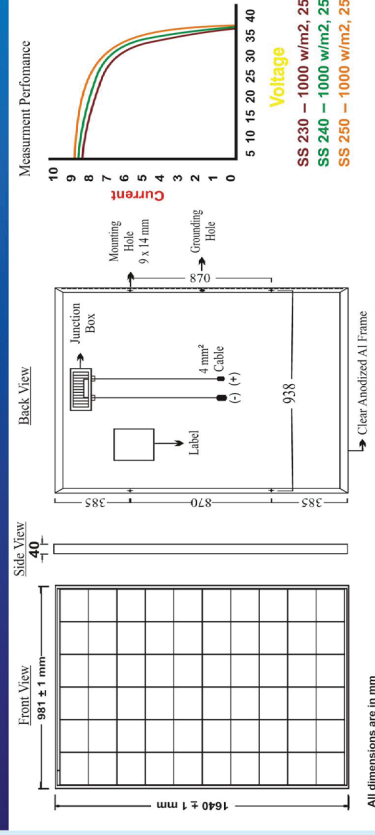
Product Guarantees

Product Warranty	10 Years
Performance Warranty	Output of 90% for 10 years and 80% for 25 years
Approvals & Certificates	Complied to IEC 61215 & UL 1703 Standards by ETL

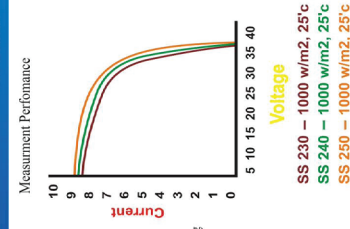
Tested Operating Conditions:

Temperature Cycling Range	(-40°C--85°C)
humidity Freeze, Damp Heat	85 % RH
Static Load	2400 Pascal
Main Load	5400 Pascal
hail Stone Impact	25mm at 25 m/s

Dimensions



IV Curve



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www.windowsswindandsolar.com
MIRECS Approved #13

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H_xWxD 1640 X 981 X 40 mm
H_xWxD 64.57 X 38.62 X 1.57 inch



Electrical Specifications

Nominal Maximum Power (P _{max})	280W	290W	295W	300W
Optimum Operating Voltage (V _{mp})	36	36	36	36
Optimum Operating Current (I _{mp})	7.78	8.06	8.19	8.33
Open Circuit Voltage (V _{oc})	43.92	43.92	44.6	44.64
Short Circuit Current (I _{sc})	8.15	8.3	8.43	8.45

* Maximum System Voltage : 1000 V

* Measurement Power Tolerance on Power $\pm 3\%$, 0 \pm Tolerance on Max power Available upon request.

* Under Standard Test Conditions (STC) of irradiance of 1000W/m², spectrum AM 1.5 and cell temperature of 25 °C

Mechanical Specification

Module Dimensions	(1954 X 981 X 40 mm) / (76.93 X 38.62 X 1.57 inch)		
Weight	21 kgs / 46.30lbs		
Junction Box	Protection Class IP65 with Bypass diodes		
Cable & Connectors	Solar Cable 900mm length with 4.0mm ² double Insulated Cable, Multi Contact connector		
Cell Arrangement	72 (6 X 12)		
Front Cover	3.2mm Tempered Glass		
Encapsulate	EVA		
Back Cover	Composite Sheet		
Frame	Silver Matt Finished Anodized frame, Anodizing Coating Thickness $\geq 16 \mu\text{m}$		

Temperature Coefficients

	α	β	λ
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Coefficient of Voltage	(-0.35 %/°C)		
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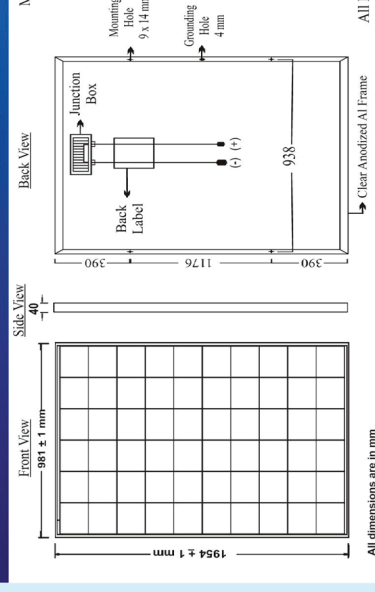
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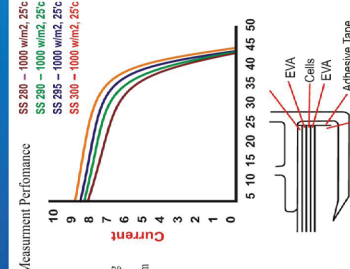
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H_xWxD 76.93 X 38.62 X 1.57 inch



Cherryland Electric Solar Garden installed by CBS in 2013

WARRANTY INFORMATION

Product warranty: Sonali Solar guarantees for 10 years from date of shipment that our panels are free from all defects in materials and workmanship. Any defect found shall be replaced free of charge within the warranty period.

Performance warranty: Sonali guarantees the rated output power of its modules for a period of 25 years from the date of purchase. This guarantee affirms that the output will be at least for 90% of the minimum power output during the first 10 years and 80% of the minimum power output in the next 15 years.

100% rated power guarantee at the time of purchase.

WE ARE TEAM SONALI

We take great pride in our work and will make sure each customer receives the finest service, care and products. Our goal is to provide a highly efficient product with exceptional customer service.

Company Goals

- Innovate and supply PV modules for a better environment
- Operate a first class manufacturing facility to continually meet demand
- Continue to provide high performing modules at a competitive price
- Conduct ongoing research and development to improve our product's quality
- Conduct ongoing training to ensure our team has full product knowledge
- Maintain long term customer relationships
- Continue growing in new and emerging markets
- Expand Sonali Solar into an internationally recognized brand



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