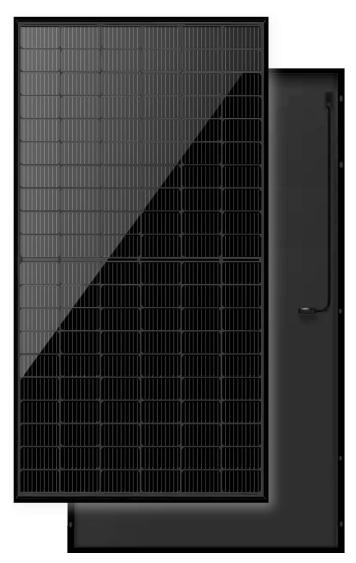


SS-M-440 to 460 Series



Quality Product

All Manufactured modules are tested 100% by EL (Electroluminescence) during the Production Process & Free from micro cracks.

Our high-performance modules are highly efficient, reliable and provide optimal output.

The company manufactures solar modules in compliance with global standard including MNRE, IEC 61215, 61730-1, 61730-2, 61701, UL 1703, UL 61730, ISO 9001:2008 & ISO 14001:2004 & 18001:2007.

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.

Application Possibilities

Residential and Commercial rooftops, Car ports, Solar Farming, Balconies, Awnings, Street lights, Fences, and Canopies.

Our Team

We have a team of qualified experts and engineers making sure that modules produce maximum power. We pride ourselves in caring for each individual customer needs with detailed attention. Our end goal is to give a highly efficient product with exceptional customer service.

Guarantee

Our product is durable and has 25 years performance warranty. Integrated manufacturing of cells & modules in production line guarantees optimum performance.

US OFFICE:

Sonali Energies USA LLC 111 Charlotte Place Suite 101A Englewood Cliffs, NJ 07632 Office Tel: 201-568-1424 info@sonalisolar.com













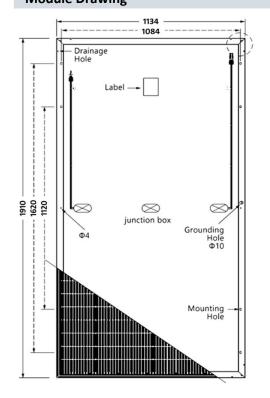
SS-M-440 to 460 Series

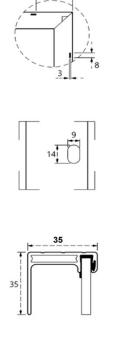
Electric Performance Parameter					
Model	SS-M-440	SS-M-445	SS-M-450	SS-M-455	SS-M-460
Nominal Maximum Power (Pmax/W)	440	445	450	455	460
Optimum Operating Voltage (Vmp/V)	34.5	34.8	35.0	35.2	35.5
Optimum Operating Current (Imp/A)	12.74	12.8	12.86	12.91	12.97
Open Circuit Voltage (Voc/V)	41.2	41.4	41.6	41.8	42.0
Short Circuit Current (Isc/A)	13.54	13.6	13.66	13.72	13.78

- * Measurement Power Tolerance on Power 0 / +%
- * Under Standard Test Conditions (STC) of irradiance of 1000W/m2
- * Maximum System Voltage: 1500v IEC/UL

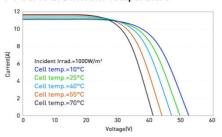
- * Normal Operating cell Temperature (NOCT) of irradiance of 800W/m2, 43± 2° C
- * Spectrum AM 1.5 and cell temperature of 25 $^{\circ}$ C
- * Wind Load 3600 pa & Mechanical Load 5400 pa

maximum system voltager 1500v 120, or	=	Willia 2000 5000 pa a Micoliamear 2000 5 10	70 pu	
Mechanical Parameter		Temperature Coefficient		
Module Dimensions	1910 X 1134 X 35 mm / 75.2 X 44.65 X 1.38 inch	Coefficient of Current	+0.05% /°C	
Weight	24 kgs / 52.91 lbs	Coefficient of Voltage	-0.29% /°C	
Cell Size (Monocrystalline)	182x91 mm / 6.53x3.27 in	Coefficient of Power	-0.37% /°C	
No Of Cell	120 (6 X 20)	Tested Operating Conditions		
Junction Box	IP68, 3 Bypass diodes	Temperature Cycling Range	-40°C to 85°C	
Solar Cable Length (4mm²)	1200mm (47.24inch)	Humidity Freeze, Damp Heat	85% RH	
Connectors	MC4 compatible			
Glass (Tempered & Low Iron)	3.2mm (0.125in) ARC	Product Warranty		
Encapsulate	EVA	Product Warranty	12 Years	
Back Cover (Black Color)	Composite Sheet	Dorformanco Warranti	First 10 Years up to 90%,	
Frame (Black Color)	Anodized Aluminum Alloy	Performance Warranty	next 15 years up to 80%	
Module Efficiency	20.40%			
Module Drawing		IV Curve		

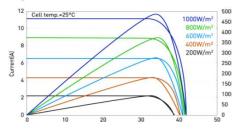




I-V Curve at Different Temperature



I-V/P-V Curve at Different Irradiation



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