

MSE330SB1A 290-330 Watt



Mission Solar Energy is a leading manufacturer of high quality solar modules. Our advanced, automated manufacturing platform offers solar modules with higher efficiencies at a lower cost.

Mission Solar Energy products combine high power output with long-term reliability. We pride ourselves on our engineering excellence, and attention to detail, to ensure optimal long-term module performance.

Product performance

- Our modules use 6" n-type, mono crystalline bifacial solar cells.
- Competitive n-type module efficiency (6" one side module: 290 ~ 330Wp)

Advanced ECN cell production technology

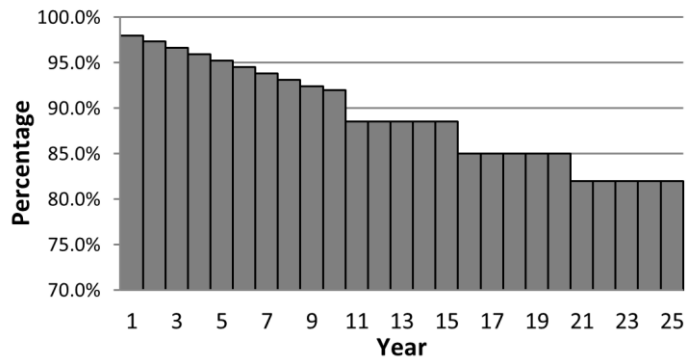
- Double fine line printing and plating
- Selective back surface field
- Advanced busbar design

Key Features:

- **Module Efficiency:** High module conversion efficiency of 17%
- **Mechanical load specifications:**
Snow load – 5400 Pascal
Wind load – 2400 Pascal
- **Tolerance:** Positive tolerance up to +3%
- **Performance:** Excellent performance in low light irradiance environments
- **Quality:** Modules are 100% EL sorted

Warranty:

- Industry leading 25 year linear performance warranty
- 10 year product warranty
- 25 year power output warranty (10 year/92.0%, 25 year/82.0%)



- **Certifications:** UL1703 , ULC/ORD C1703

Long Term Reliability, High Quality and Highly Durable Product

- **Non LID (Light Induced Degradation)**
In-house production of high quality cells, manufactured using n-type wafer substrate. Module output degradation does not occur due to LID effect upon outdoor exposure.
- **Non PID (Potential Induced Degradation)**
Using a non PID EVA in our manufacturing process in combination with n-type wafer and cell process, makes our solar modules a true PID free product.
- **Weather Resistant**
Anti-corrosion technology applied in the production of products limits corrosion due to external environment exposure, sulfur industrial zone), ammonia (rural), chloride (coastal areas) and by temperature and humidity.

Electrical Specifications

Electrical parameters at Standard Test Condition (STC)

Module type			MSE290SB1A	MSE295SB1A	MSE300SB1A	MSE305SB1A	MSE310SB1A	MSE315SB1A	MSE320SB1A	MSE325SB1A	MSE330SB1A
Power output	P_{max}	W_p	290	295	300	305	310	315	320	325	330
Short-Circuit Current	I_{sc}	A	8.72	8.79	8.86	8.94	9.01	9.08	9.15	9.23	9.30
Open Circuit Voltage	V_{oc}	V	44.5	44.8	45.2	45.6	45.9	46.3	46.7	47.0	47.4
Rated Current	I_{mp}	A	8.12	8.19	8.26	8.32	8.39	8.45	8.52	8.59	8.65
Rated Voltage	V_{mp}	V	36.0	36.3	36.6	36.9	37.2	37.5	37.8	38.1	38.4

STC: Irradiance 1000 W/m², Cell temperature of 25°C, AM 1.5

Temperature Coefficients

Normal Operating Cell Temperature(NOCT)	45°C (±2°C)
Temperature coefficient of Pmax	-0.5% per deg C
Temperature coefficient of Vmp	-0.4% per deg C
Temperature coefficient of Imp	0.05% per deg C

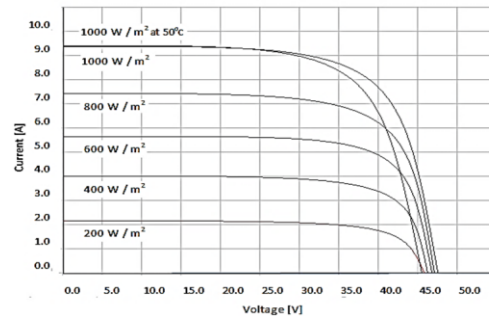
Operating Conditions

Maximum System Voltage	1000VDC for UL
Operating Temperature Range	-40°C (-40°F) to +90°C (194°F)
Maximum Series fuse Rating	15A
Fire Safety Classification	Class C
Static Load Wind/Snow	2400Pa/5400Pa

Mechanical Data

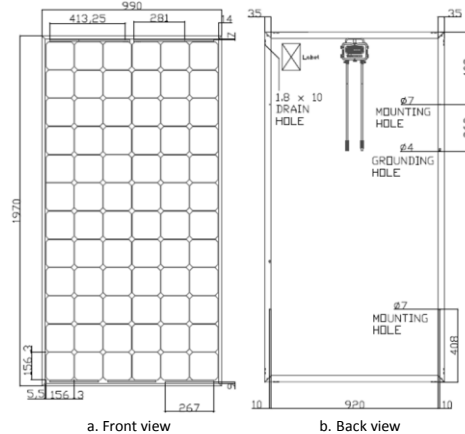
Solar Cells	Bifacial N- type Mono – Crystalline Silicon (6 inches)
Cell orientation	72 cells (6x12)
Module dimension	1970mm x 990mm x 40mm (77.5591 in. x 38.9764 in. x 1.5748 in.)
Weight	25 kg (55.1 lb)
Front Glass	4.0mm(0.16 inches) tempered, Low-iron, Anti-reflective coating
Frame	Anodized aluminum alloy
Encapsulant	Ethylene vinyl acetate(EVA)
J-Box	Protection class IP65 with bypass-diode
Cables	PV wire, 1.2m(47.2 inches), 4mm ² / 12 AWG
Connector	Amphenol H4

MSE 330SB1A: 330Wp, 72Cell Solar Module
Current-Voltage Curve



Current-voltage characteristics with dependence on irradiance and module temperature

Basic Design (Units: mm)



c. Frame section



d. Mounting slots



e. Grounding holes



f. Drainage holes



Mission Solar Energy LLC
8030 S. New Braunfels Ave. San Antonio, Texas 78235, USA
Tel: +1-210-531-8600
Fax: +1-210-532-2215
Email: info@missionsolar.com
www.missionsolar.com

Caution: Read safety and instructions before using the product.
©Mission Solar Energy LLC. Specifications are subject to change without notice.