

VSUN450-144MH

The Half Cell Module

VSUN450-144MH VSUN445-144MH
 VSUN440-144MH VSUN435-144MH

20.70%

Module efficiency

12years

Material & Workmanship warranty

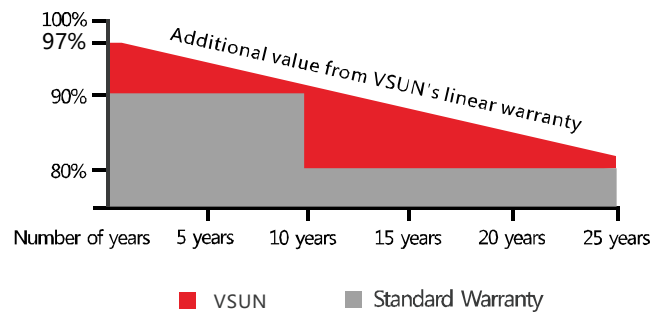
450W


Highest power output

25years

Linear power output warranty

-  PERC Cell Technology
-  Higher output power
-  Lower risk of micro-crack
-  Positive tolerance offer
-  Lower risk of hot spot
-  Better shading tolerance
-  Lower LCOE



Munich RE  **®**

- 12-year product warranty
- 25-year linear power output warranty

Invested by Fuji Solar, VSUN is a Japanese solar module solutions provider located in Tokyo that offers Japanese quality solar technologies globally. The group's business covers Japan, North America, Southeast Asia and EMEA since 2006. Solar module manufacturing base is located in Vietnam, Bac Giang province, and it is one of the fastest-growing, most heavily invested and most promising solar high-tech enterprises in the country.

Innovative & Smart – VSUN has been committed to providing greener, cleaner, and more intelligent renewable energy solutions. It is focusing on the new energy market and the development of customized and high-efficiency products.

VSUN offers PV project development and investments and provides full package of service for EPC solutions.

Note:

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Electrical Characteristics at Standard Test Conditions(STC)

Module Type	VSUN450-144MH	VSUN445-144MH	VSUN440-144MH	VSUN435-144MH
Maximum Power - Pmax (W)	450	445	440	435
Open Circuit Voltage - Voc (V)	50	49.8	49.6	49.4
Short Circuit Current - Isc (A)	11.5	11.42	11.34	11.26
Maximum Power Voltage - Vmpp (V)	41.4	41.2	41	40.8
Maximum Power Current - Imp (A)	10.87	10.81	10.74	10.67
Module Efficiency	20.70%	20.47%	20.24%	20.01%

Standard Test Conditions (STC): irradiance 1,000 W/m²; AM 1.5; module temperature 25°C. Pmax Sorting : 0~5W. Measuring Tolerance: ±3%.
 Remark: Electrical data do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

Electrical Characteristics at Normal Operating Cell Temperature(NOCT)

Module Type	VSUN450-144MH	VSUN445-144MH	VSUN440-144MH	VSUN435-144MH
Maximum Power - Pmax (W)	333.8	330.4	326.6	322.2
Open Circuit Voltage - Voc (V)	46.3	46.2	46	46.1
Short Circuit Current - Isc (A)	9.3	9.24	9.17	9.08
Maximum Power Voltage - Vmpp (V)	38.2	38	37.9	37.7
Maximum Power Current - Imp (A)	8.75	8.69	8.62	8.56

Normal Operating Cell Temperature(NOCT) : irradiance 800W/m²; wind speed 1 m/s ; ambient temperature 20°C. Measuring Tolerance: ±3%.

Temperature Characteristics

NOCT	45°C (±2°C)
Voltage Temperature Coefficient	-0.286%/°C
Current Temperature Coefficient	+0.057%/°C
Power Temperature Coefficient	-0.37%/°C

Maximum Ratings

Maximum System Voltage [V]	1500
Series Fuse Rating [A]	20

Material Characteristics

Dimensions	2094×1038×35mm (L×W×H)
Weight	23.7kg
Frame	Anodized aluminum profile
Front Glass	AR Coating Tempered glass, 3.2 mm
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Backsheet	Composite film
Cells	12×12 pieces monocrystalline solar cells series strings
Junction Box	IP≥67, 3 diodes
Cable&Connector	Potrait: 500 mm (cable length can be customized) , 1×4 mm ² , compatible with MC4

Packaging

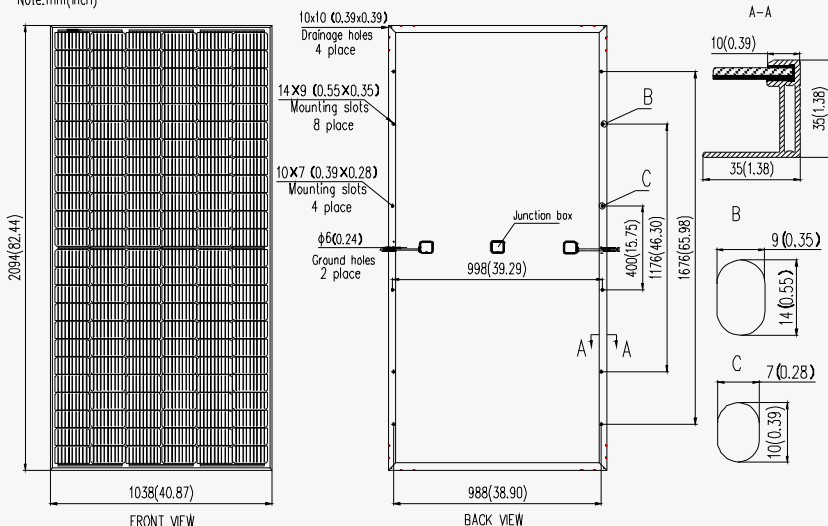
Dimensions(L×W×H)	2120×1110×1152mm
Container20'	150
Container40'	660
Container40'HC	715

System Design

Temperature Range	-40 °C to + 85 °C
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m·s ⁻¹
Maximum Surface Load	5,400 Pa
Application class	class A

Dimensions

Note:mm (inch)



IV-Curves

