

# VSUN405-144M The Half Cell Module

VSUN405-144M VSUN395-144M VSUN400-144M VSUN390-144M

20.17% Module efficiency

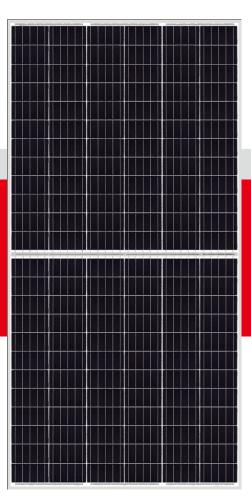
405W Highest power output

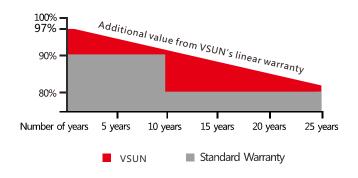
PERC	PERC Cell Technology
	Higher output power
	Lower risk of micro-crack
	Positive tolerance offer
	Lower risk of hot spot
٢	Better shading tolerance
$\bigcirc$	Certified for salt/ammonia corrosion resistance
$\odot$	Load certificates: wind to 2400Pa and snow to 5400Pa

Lower LCOE

12years Material & Workmanship warranty

25years Linear power output warranty







12-year product warranty25-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:

PV CYCLE

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# **Electrical Characteristics at Standard Test Conditions(STC)**

Module Type	VSUN405-144M	VSUN400-144M	VSUN395-144M	VSUN390-144M
Maximum Power - Pmax (W)	405	400	395	390
Open Circuit Voltage - Voc (V)	49.1	48.9	48.7	48.5
Short Circuit Current - Isc (A)	10.48	10.39	10.31	10.22
Maximum Power Voltage - Vmpp (V)	40.9	40.7	40.5	40.3
Maximum Power Current - Impp (A)	9.91	9.83	9.76	9.68
Module Efficiency	20.17%	19.92%	19.67%	19.42%

Standard Test Conditions (STC): irradiance 1,000 W/m<sup>2</sup>; 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)**

44M VSUN400-144	M VSUN395-144M	VSUN390-144M
295.1	291.6	287.8
45.2	45	44.8
8.39	8.33	8.26
37.4	37.2	37.1
7.89	7.83	7.76
1	295.1 45.2 8.39 37.4	295.1 291.6   45.2 45   8.39 8.33   37.4 37.2

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

#### **Temperature Characteristics**

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NOCT	45°C ( ±2°C )	Maximum System Voltage [V]	1000
Voltage Temperature Coefficient	-0.29%/°C	Series Fuse Rating [A]	20
Current Temperature Coefficient	+0.05%/°C		
Power Temperature Coefficient	-0.39%/℃		

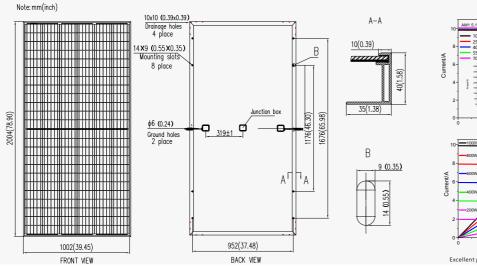
**Maximum Ratings** 

#### **Material Characteristics**

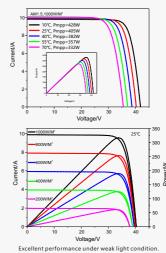
Dimensions	2004×1002×40mm (L×W×H)
Weight	22.9kg
Frame	Anodized aluminum profile
Front Glass	White toughened safety glass, 3.2 mm
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Sheet	Composite film
Cells	12×12 pieces monocrystalline solar cells series strings
Junction Box	IP≧67, 3 diodes
Cable&Connector	Potrait: 500 mm (cable length can be customized) , 1×4 mm2, compatible with MC4
Packaging	System Design

#### Dimensions(L×W×H) -40 °C to + 85 °C 2030×1110×1132mm Temperature Range Maximum diameter of 25 mm with impact speed Container20' 270 Withstanding Hail Container40 594 of 23 m·s-1 Container40'HC 5,400 Pa 649 Maximum Surface Load class A Application class

# Dimensions



# **IV-Curves**



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10x10 (0.39x0.39)