

# VSUN450-144BMH-DG

**450W**

Highest power output

**20.24%**

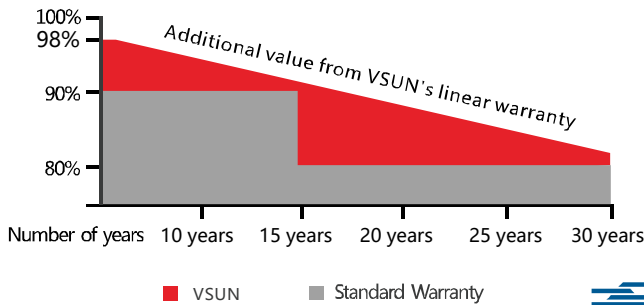
Module efficiency

**12years**

Material & Workmanship warranty

**30years**

Linear power output warranty



■ VSUN

■ Standard Warranty

**Munich RE** 



PERC Cell Technology



Higher output power



Lower risk of micro-crack



Positive tolerance offer



Lower risk of hot spot



Better shading tolerance



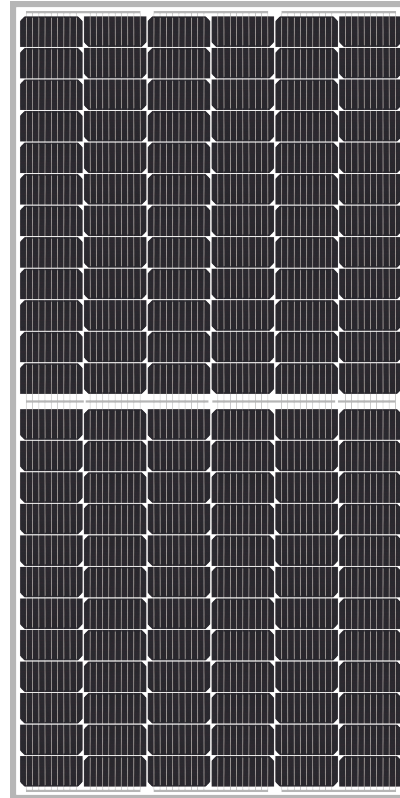
Certified for salt/ammonia corrosion resistance



Load certificates: wind to 2400Pa and snow to 5400Pa



Lower LCOE



VSUN450-144BMH-DG VSUN445-144BMH-DG  
VSUN440-144BMH-DG VSUN435-144BMH-DG

VSUN, a BNEF Tier-1 PV module manufacturer invested by Fuji Solar, has been committed to providing greener, cleaner and more intelligent renewable energy solutions. VSUN is dedicated to bringing reliable, customized and high-efficient products into various markets and customers worldwide



Engineered in Japan  
[www.vsun-solar.com](http://www.vsun-solar.com)

## Electrical Characteristics at Standard Test Conditions(STC)

Module Type	VSUN450-144BMH-DG	VSUN445-144BMH-DG	VSUN440-144BMH-DG	VSUN435-144BMH-DG
Maximum Power - Pmax (W)	450	445	440	435
Open Circuit Voltage - Voc (V)	49.4	49.2	49.0	48.8
Short Circuit Current - Isc (A)	11.52	11.44	11.36	11.28
Maximum Power Voltage - Vmpp (V)	41.2	41	40.8	40.6
Maximum Power Current - Imp (A)	10.93	10.86	10.79	10.72
Module Efficiency	20.24%	20.01%	19.79%	19.56%

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 with different rear side power gain(reference to 445 front)

Pmax (W)	Voc (V)	Isc (A)	Vmpp (V)	Imp (A)	Pmax gain
468	49.2	12.01	41	11.40	5%
490	49.2	12.58	41	11.95	10%
533	49.30	13.73	40.90	13.03	20%
555	49.30	14.30	40.90	13.58	25%

## Temperature Characteristics

NOCT	45°C(±2°C)
Voltage Temperature Coefficient	-0.26%/°C
Current Temperature Coefficient	+0.054%/°C
Power Temperature Coefficient	-0.32%/°C

## Maximum Ratings

Maximum System Voltage [V]	1000/1500
Series Fuse Rating [A]	20
Bifaciality	70%±5%

## Material Characteristics

Dimensions	2122×1048×35mm (L×W×H)
Weight	27.8kg
Frame	Silver anodized aluminum profile
Front Glass	High transparency,Antireflection coated,Semi-toughened safety glass,2.0mm
Cell Encapsulation	EVA or POE
Back Glass	Glazed & Semi-toughened safety glass,2.0mm
Cells	12×12 pieces bifacial monocrystalline solar cells series strings
Junction Box	IP68, 3 diodes
Cable&Connector	Potrait: 500 mm (cable length can be customized) , 1×4 mm 2 , compatible with MC4

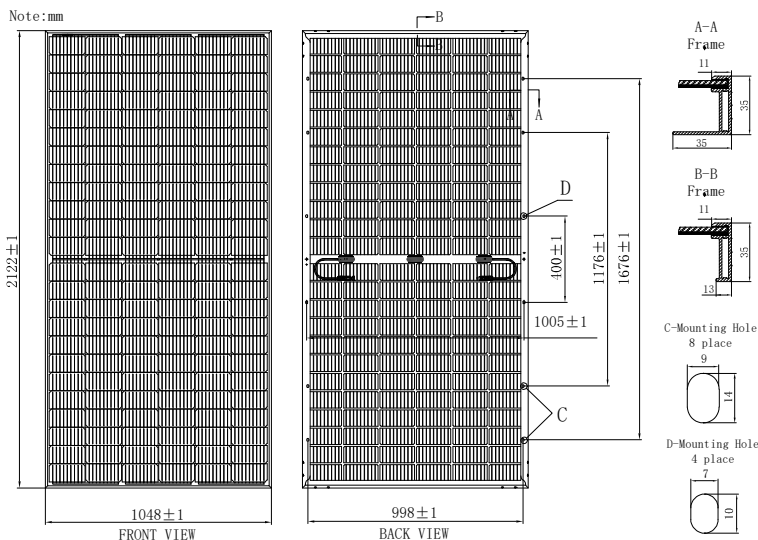
## Packaging

Dimensions(L×W×H)	2170×1125×1181mm
Container 20'	150
Container 40'	330
Container 40'HC	660

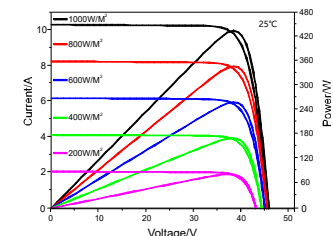
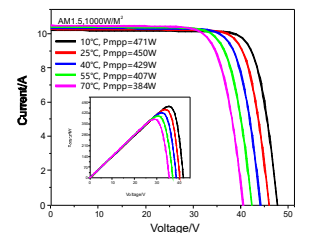
## System Design

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

## Dimensions



## IV-Curves



Excellent performance under weak light condition.