VSUN
Innovative & Smart

Customized for VAN METER

VSUN450-144BMH

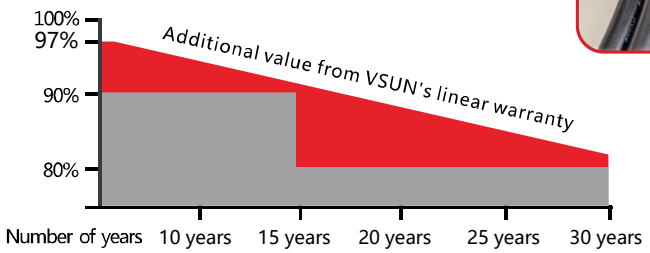
VSUN450-144BMH VSUN445-144BMH
VSUN440-144BMH VSUN435-144BMH

450W
Highest power output

20.37%
Module efficiency

25years
Material & Workmanship warranty

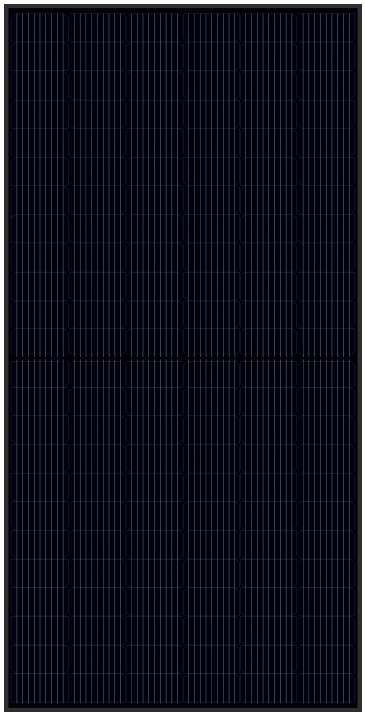
30years
Linear power output warranty



Munich RE

Integrated
Wire Management





- PERC Cell Technology
- Higher output power
- Lower risk of micro-crack
- Positive tolerance offer
- Lower risk of hot spot
- Better shading tolerance
- **IEC61215 & IEC61730**
  UL61730 certificate
- Certified for salt/ammonia corrosion resistance
- Lower LCOE

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

Electrical Characteristics at Standard Test Conditions(STC)

Module Type	VSUN450-144BMH	VSUN445-144BMH	VSUN440-144BMH	VSUN435-144BMH
Maximum Power - Pmax (W)	450	445	440	435
Open Circuit Voltage - Voc (V)	49.4	49.2	49	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 - Impp (A)	10.93	10.86	10.79	10.72
Module Efficiency	20.37%	20.14%	19.92%	19.69%

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

Pmax (W)	Voc (V)	Isc (A)	Vmpp (V)	Impp (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]	1500
Series Fuse Rating [A]	20
Bifaciality	70%±10%

Material Characteristics

Dimensions (L*W*H)	2108 x 1048 x 35mm / 82.99 x 41.26 x 1.38 in
Weight	24.4kg / 53.79lbs
Frame	Black anodized aluminum profile
Front Glass	AR-Coating toughened glass, 3.2mm
Cell Encapsulation Back	EVA or POE
Sheet	Transparent black-mesh backsheet
Cells	12×12 pieces bifacial monocrystalline solar cells series strings
Junction Box	IP68, 3 diodes
Cable&Connector Wire	Cable length 2400 mm, Staubli MC4 connector
Management	Wire management system fits 6.1-6.7 mm OD wires including Solaredge and Enphase Cables

Packaging

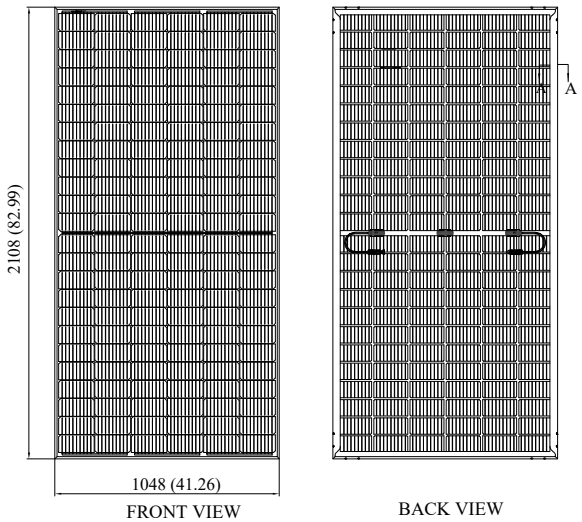
Dimensions (L*W*H)	2140x1125x1181mm
	84.25x44.29x46.50 in
Container 20'	155
Container 40'	341
Container 40'HC	682

System Design

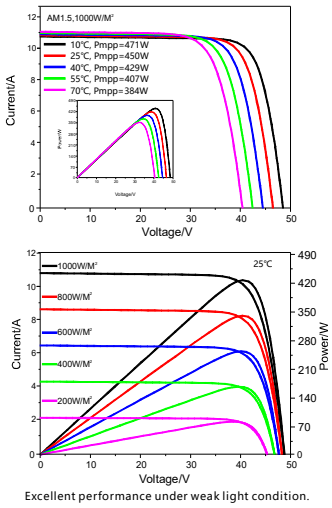
Temperature Range	-40 °C to + 85 °C
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s
Maximum Surface Load	5,400 Pa
Application class	class A

Dimensions

Note:mm (inch)



IV-Curves



Excellent performance under weak light condition.

Revision date: 2022-08-17