

VSUN415-144BMH-DG

415W

Highest power output

20.36%

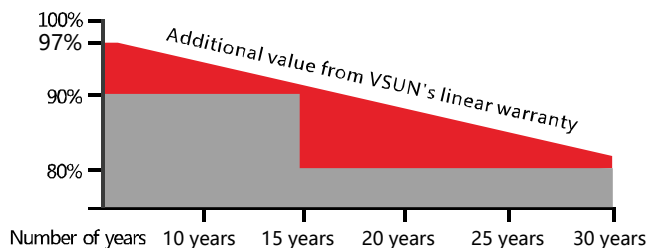
Module efficiency

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



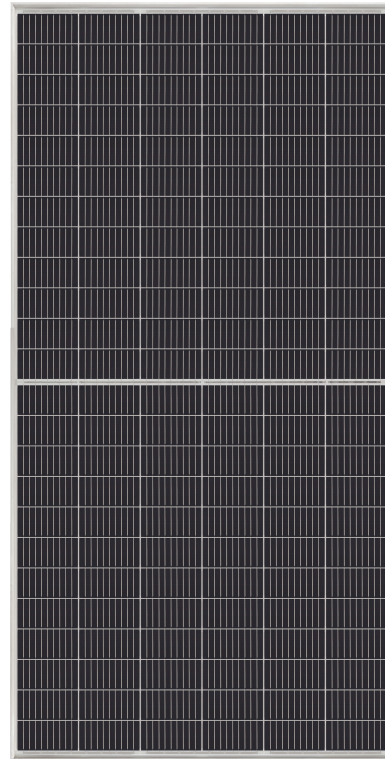
Certified for salt/ammonia corrosion resistance



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



Lower LCOE



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

Electrical Characteristics at Standard Test Conditions(STC)

Module Type	VSUN415-144BMH-DG	VSUN410-144BMH-DG	VSUN405-144BMH-DG	VSUN400-144BMH-DG
Maximum Power - Pmax (W)	415	410	405	400
Open Circuit Voltage - Voc (V)	49	48.8	48.6	48.4
Short Circuit Current - Isc (A)	10.71	10.63	10.56	10.47
Maximum Power Voltage - Vmpp (V)	40.9	40.7	40.5	40.3
Maximum Power Current - Imp (A)	10.15	10.08	10.01	9.93
Module Efficiency	20.36%	20.12%	19.87%	19.63%

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 410 front)

Pmax (W)	Voc (V)	Isc (A)	Vmpp (V)	Imp (A)	Pmax gain
431	48.80	11.16	40.70	10.58	5%
451	48.80	11.69	40.70	11.09	10%
491	48.90	12.76	40.60	12.10	20%
512	48.90	13.29	40.60	12.60	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	2030×1004×35mm (L×W×H)
Weight	25.4kg
Frame	Silver anodized aluminum profile
Front Glass	High transparency,Antireflection coated,Semi-toughened safety glass,2.0mm
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)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

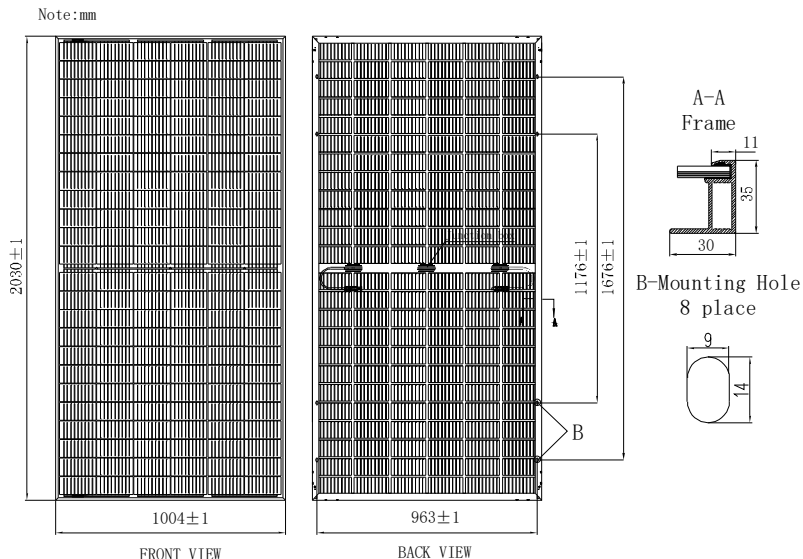
Packaging

Dimensions(L×W×H)	2060×1125×1134mm
Container 20'	300
Container 40'	660
Container 40'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
Maximum Surface Load	5,400 Pa
Application class	class A

Dimensions



IV-Curves

