

VSUN450-144MH

450W

Highest power output

20.37%

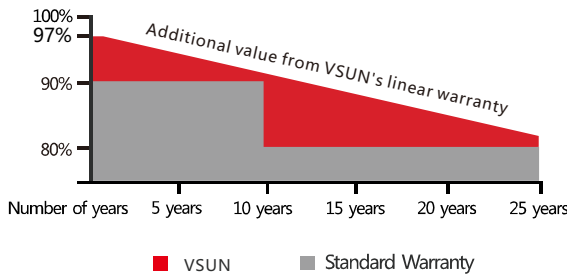
Module efficiency

12years

Material & Workmanship warranty

25years

Linear power output 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



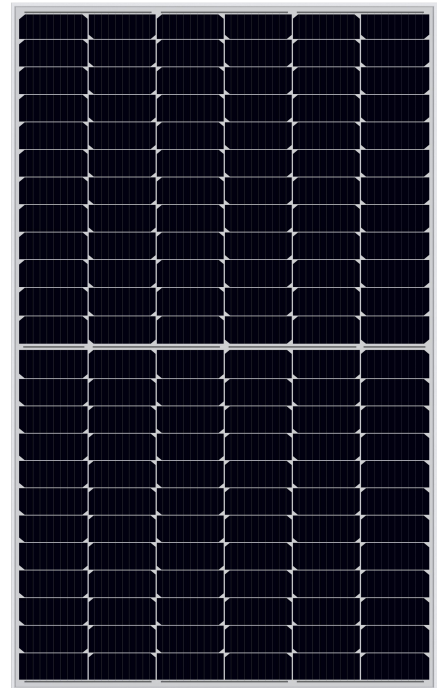
Certified for salt/ammonia corrosion resistance



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 | 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 | 20.37% | 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 at Normal Operating Cell Temperature(NOCT)

| Module Type | VSUN450-144MH | VSUN445-144MH | VSUN440-144MH | VSUN435-144MH |
|----------------------------------|---------------|---------------|---------------|---------------|
| Maximum Power - Pmax (W) | 335.2 | 331.7 | 328 | 324.3 |
| Open Circuit Voltage - Voc (V) | 46.6 | 46.4 | 46.2 | 46 |
| Short Circuit Current - Isc (A) | 9.29 | 9.22 | 9.16 | 9.09 |
| Maximum Power Voltage - Vmpp (V) | 38.4 | 38.2 | 38.1 | 37.9 |
| Maximum Power Current - Imp (A) | 8.73 | 8.67 | 8.61 | 8.55 |

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 | -0.27%/°C |
| Current Temperature Coefficient | +0.048%/°C |
| Power Temperature Coefficient | -0.35%/°C |

Maximum Ratings

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

Material Characteristics

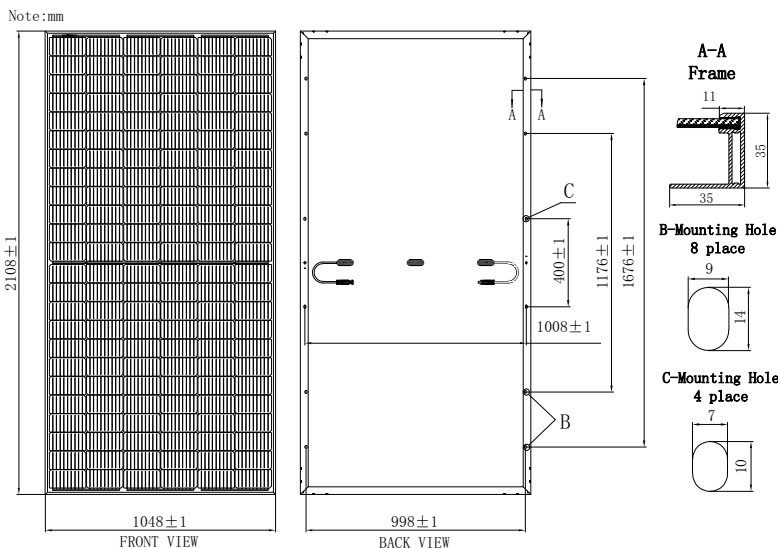
| | |
|--------------------|--|
| Dimensions | 2108×1048×35mm (L×W×H) |
| Weight | 24.4kg |
| Frame | Silver anodized aluminum profile |
| Front Glass | White toughened safety glass, 3.2 mm |
| Cell Encapsulation | EVA (Ethylene-Vinyl-Acetate) |
| Back Sheet | Composite film |
| Cells | 12×12 pieces monocrystalline solar cells series strings |
| Junction Box | IP≥67, 3 diodes |
| Cable&Connector | Potrait: 300 mm (cable length can be customized) , 1×4 mm ² , compatible with MC4 |

Packaging

| | | | |
|-------------------|------------------|----------------------|---|
| Dimensions(L×W×H) | 2140×1105×1168mm | Temperature Range | -40 °C to + 85 °C |
| Container20' | 150 | Withstanding Hail | Maximum diameter of 25 mm with impact speed of 23 m-s-1 |
| Container40' | 330 | | |
| Container40'HC | 660 | Maximum Surface Load | 5,400 Pa |
| | | Application class | class A |

System Design

Dimensions



IV-Curves

