



## VSUN475N-120BMH-DG-BB

VSUN475N-120BMH-DG-BB VSUN470N-120BMH-DG-BB

VSUN465N-120BMH-DG-BB VSUN460N-120BMH-DG-BB

**475W**

Highest power output

**21.95%**

Module efficiency

**1.0%**

First-year degradation warranty

**0.4%**

Annual degradation over 30 years

### ABOUT VSUN

Invested by Fuji Solar, VSUN SOLAR is a solar solution provider with headquartered in Tokyo, Japan that offers reliability, high efficiency solar products and technology globally. VSUN is rated as BNEF Tier 1 PV module manufacturer, PVEL Lab "Best performer" and EcoVadis "Bronze Award".

### KEY FEATURES

**TOPcon** TOPcon technology



Higher output power



MBB technology with Circular Ribbon



Positive tolerance offer



Bifacial cells, converting more sunlight into electricity



Better shading tolerance



Better temperature coefficient



Excellent PID Resistance



Lower LCOE

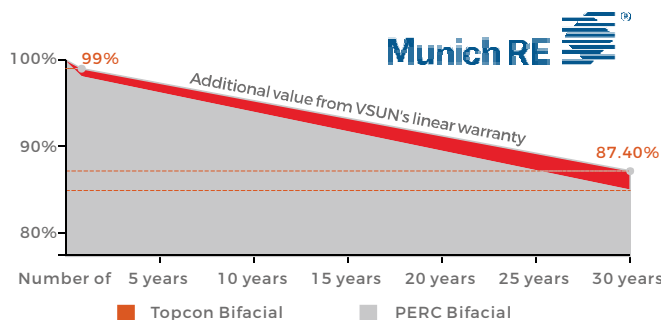


UL 61730 & CSA 61730  
IEC 61215 & IEC 61730

### PRODUCT CERTIFICATION



### WARRANTY



## Electrical Characteristics at Standard Test Conditions(STC)

Module Type	VSUN475N-120BMH-DG-BB	VSUN470N-120BMH-DG-BB	VSUN465N-120BMH-DG-BB	VSUN460N-120BMH-DG-BB
Maximum Power - Pmax (W)	475	470	465	460
Open Circuit Voltage - Voc (V)	42.53	42.37	42.21	42.07
Short Circuit Current - Isc (A)	14.23	14.15	14.08	13.99
Maximum Power Voltage - Vmpp (V)	35.23	35.07	34.92	34.76
Maximum Power Current - Imp (A)	13.49	13.41	13.32	13.24
Module Efficiency	21.95%	21.72%	21.49%	21.26%

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 470 front)

Pmax (W)	Voc (V)	Isc (A)	Vmpp (V)	Imp (A)	Pmax gain
494	42.37	14.86	35.07	14.08	5%
517	42.37	15.57	35.07	14.75	10%
563	42.45	16.98	34.99	16.09	20%
587	42.45	17.69	34.99	16.76	25%

## Material Characteristics

Dimensions	1908×1134×30mm (L×W×H) 75.12*44.65*1.18 inches (L×W×H)
Weight	26.7kg / 58.86lbs
Frame	Black anodized aluminum profile
Front Glass	AR-coating Semi-toughened glass, 2.0mm
Back Glass	Black glazed & Semi-toughened glass, 2.0mm
Cells	12×10 pcs mono solar cells series strings
Junction Box	IP68, 3 diodes
Cable	Potrait: 500 mm (cable length can be customized), 1×4 mm <sup>2</sup> or 12AWG, Connector: PV-ZH202B

## System Design

Maximum System Voltage [V]	1500
Series Fuse Rating [A]	30
Bifaciality	80%±5%
Fire Rating	Class C for IEC and TYPE 29 for US
Protection Class	Class II
Temperature Range	-40 °C to + 85 °C
Maximum Surface Load	+5400/-2400 Pa +113/-50 psf
Application class	class A
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s

## Packaging

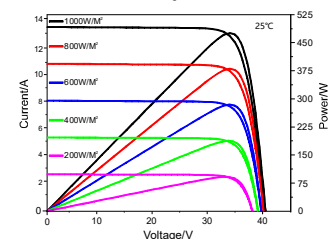
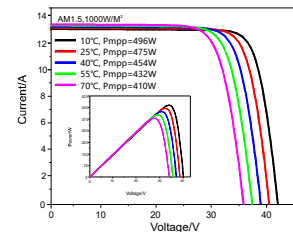
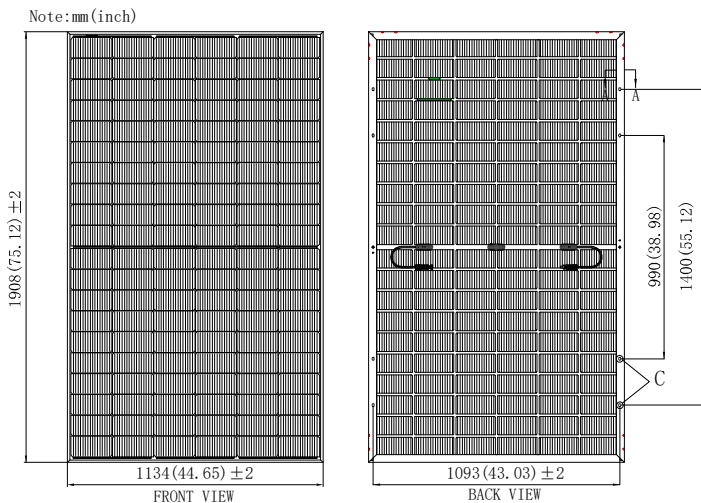
Dimensions(L×W×H)	1940×1125×1253mm / 76.38*44.29*49.33inches
Quantity per pallet	35 pcs
Container 20'	175
Container 40'	420
Container 40'HC	840 or 700 for US

## Temperature Characteristics

NOCT	45°C(±2°C)
Voltage Temperature Coefficient	-0.26%/°C
Current Temperature Coefficient	+0.046%/°C
Power Temperature Coefficient	-0.30%/°C

## Dimensions

## IV-Curves



Excellent performance under weak light condition.