



## 435-450watt

### 144 CELL HALF CUT MONO PERC SOLAR MODULE

• AE14HXXXVHC9B

#### Special Cell Design



The unique cell design leads to reduced electrodes resistance and smaller current, thus enables higher fill factor. Meanwhile, it can reduce losses of mismatch and cell wear, and increase total reflection.

#### IP68 Rated Junction Box

IP68

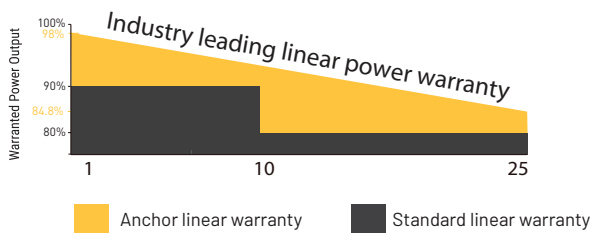
The IP 68 rated junction box ensures an outstanding waterproofing, supports installation in all orientations with less stress on the cables. Highly reliable performance with low resistance connectors ensures maximum output for higher energy production.

#### Trust Anchor to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (salt mist & ammonia corrosion testing: IEC 61701, IEC 62716)\*
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free modules

#### Industry-leading Warranty based on nominal power

- 98% in the first year, thereafter, for years two (2) through twenty-five (25), 0.55% maximum decrease from MODULE's nominal power output per year, ending with the 84.8% in the 25th year after the defined WARRANTY STARTING DATE.
- 12-year product warranty\*\*\*\*
- 25-year linear performance



#### Higher power output

Module efficiency up to 20.7% achieved through advanced cell technology and manufacturing process\*



#### Excellent weak light performance

More power output in weak light condition, such as haze, clouds, early and late sun hours



#### Lower operating temperature

Lower Operating temperature with lower temperature coefficient increases the power output.



#### Extended load tests

Module certified to withstand front side maximum static test load (5400 Pascal) and rear side maximum static test loads (3800 Pascal)\*



#### Withstanding Harsh Environment

Reliable quality leads to better sustainability even in harsh environment like desert, farm and coastline



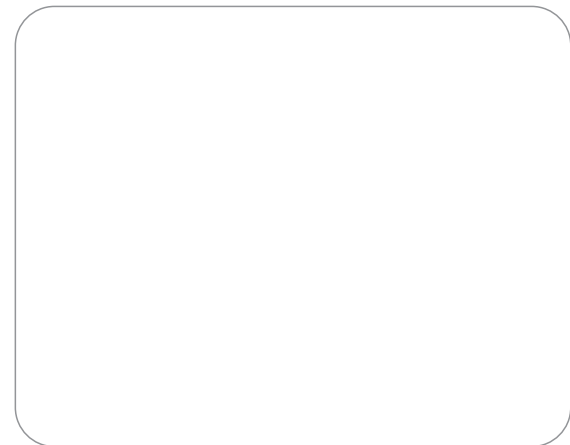
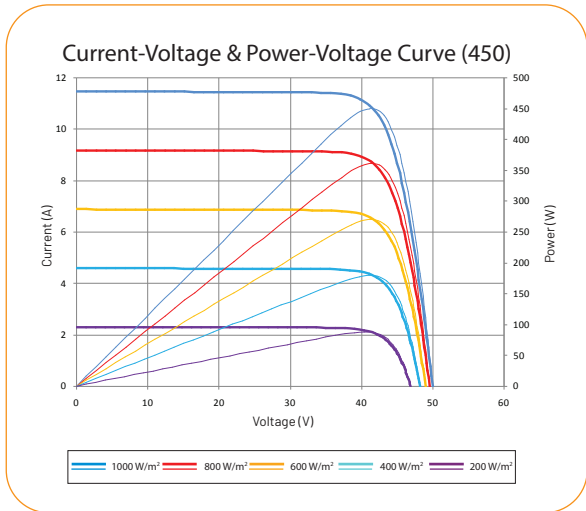
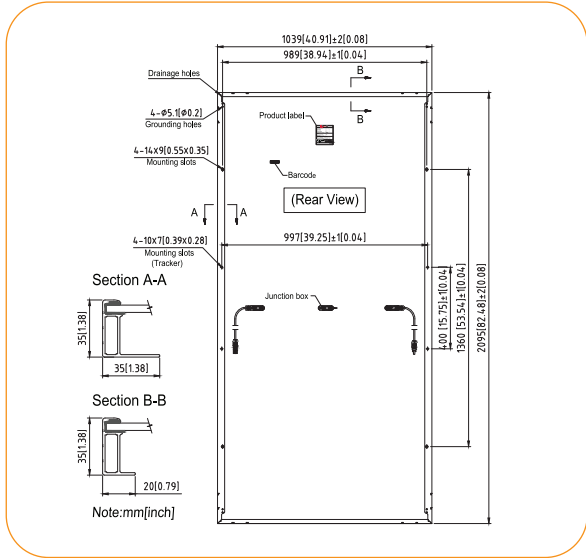
Certifications and standards:

IEC 61215, IEC 61730  
IEC 62716 | IEC 61701



\* Please refer to PLSIND Standard Module Installation Manual for details.

\*\*\*\*Please refer to PLSIND Product Warranty for details.



• **AE14HXXXVHC9B**

**Electrical Characteristics**

STC	• AE14HXXXVHC9B			
Maximum Power at STC (Pmax)	450W	445W	440W	435W
Optimum Operating Voltage (Vmp)	41.4V	41.2V	41.0V	40.8V
Optimum Operating Current (Imp)	10.87A	10.81A	10.74A	10.67A
Open Circuit Voltage (Voc)	49.2 V	49.0V	48.8V	48.6V
Short Circuit Current (Isc)	11.61 A	11.54A	11.47A	11.40A
Module Efficiency	20.7%	20.4%	20.2%	20.0%
Operating Module Temperature (°C)	-40°C to +85°C			
Maximum System Voltage	1500V DC (IEC)			
Maximum Series Fuse Rating	20A			
Power Tolerance	0/+5W			

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;  
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%  
#PLSIND reserves the right to adjust the listed parameters without notice.

NMOT	• AE14HXXXVHC9B			
Maximum Power at NMOT (Pmax)	339.4W	335.8W	332.7W	327.7W
Optimum Operating Voltage (Vmp)	38.2V	38.0V	37.8V	37.6V
Optimum Operating Current (Imp)	8.89A	8.84A	8.78A	8.73A
Open Circuit Voltage (Voc)	46.2V	46.0V	45.8V	45.5V
Short Circuit Current (Isc)	9.37A	9.31A	9.25A	9.20A

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s

**Temperature Characteristics**

Nominal Module Operating Temperature (NMOT)	42 ± 2°C
Temperature Coefficient of Pmax (γ)	-0.36%/°C
Temperature Coefficient of Voc (β)	-0.304%/°C
Temperature Coefficient of Isc (α)	0.050%/°C

**Mechanical Characteristics**

Solar Cell	Mono Perc silicon 166 mm
No. of Cells	144 (6 x 24)
Dimensions	2095 x 1039 x 35 mm
Weight	24.5 kgs
Front Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm <sup>2</sup> Portrait: (-)350 mm and (+)160 mm in length or customized length
Connectors	MC4 EV02, Cable 01S

**Packing Configuration**

Container	20' GP	40' HC
Pieces per pallet	31	31
Pallets per container	5	22
Pieces per container	155	682
Packaging box dimensions	2125x1130x1205 mm	
Packaging box weight	814 kg	

#PLSIND stands for Panasonic Life Solutions India Pvt. Ltd.

**Panasonic Life Solutions India Pvt. Ltd.**

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