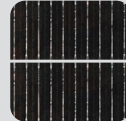


530-550Watt

144 HALF-CELL MONO PERC MODULE

• AE14HXXXVHC10B

Special Cell Design



MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase. Half-cell aims to eliminate the cell gap to increase module efficiency.

IP68 Rated Junction Box

IP68

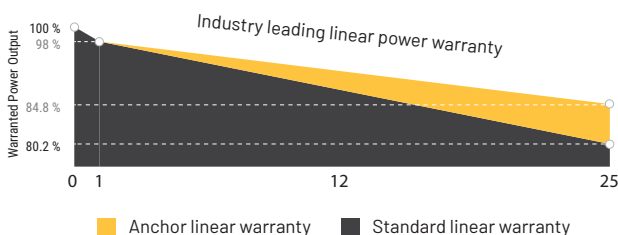
The IP 68 rated junction box ensures an outstanding waterproofing, supports installation in all orientations with less stress on the cables. Highly reliable performance with low resistance connectors ensures maximum output for higher energy production.

Trust Anchor to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (IEC 61701, IEC 62716)
- Long-term reliability tests
- 2 × 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.
- Product Warranty is of 12 Years**
- 25 year linear performance warranty



High Efficiency

High module conversion efficiency

Module efficiency up to 21.3 % achieved through advanced cell technology and manufacturing process



2%

Anchor current sorting process

Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Weak light

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 and temperature coefficient increases the power output



2400Pa
5400Pa

Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)*



Harsh environment

Withstanding Harsh Environment

Reliable quality leads to better sustainability even in harsh environment like desert and coastal area



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.

Electrical Characteristics

STC	AE14HxxxVHC10B				
Wattage, Wp	550W	545W	540W	535W	530W
Voltage at Max Power, Vmax	42.05V	41.87V	41.75V	41.57V	41.39V
Open Circuit Voltage, Voc	49.88V	49.69V	49.54V	49.39V	49.24V
Current at Max Power, Imax	13.08A	13.02A	12.94A	12.87A	12.81A
Short Circuit Current, Isc	14.01A	13.96A	13.89A	13.83A	13.76A
Module Efficiency	21.3%	21.1%	20.9%	20.7%	20.5%
Operating Temperature (°C)	-40°C ~ +85°C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	25 A				
Power Tolerance	0 to +5Wp				

STC: Irradiance 1000 W/m², Module temperature 25 °C, AM=1.5
 Tolerance of Wp is within +/- 3% ;
 # PLSIND reserves the right to adjust the listed parameters without notice.

NMOT	AE14HxxxVHC10B				
Maximum Power at NMOT, Wp	415.0W	411.5W	408.0W	404.3W	400.6W
Voltage at Max Power, Vmax	38.9V	38.7V	38.6V	38.4V	38.2V
Open Circuit Voltage, Voc	46.9V	46.7V	46.5V	46.4V	46.3V
Current at Max Power, Imax	10.67A	10.63A	10.58A	10.53A	10.47A
Short Circuit Current, Isc	11.22A	11.18A	11.13A	11.08A	11.02A

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.
 # PLSIND reserves the right to adjust the listed parameters without notice.

Temperature Characteristics

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

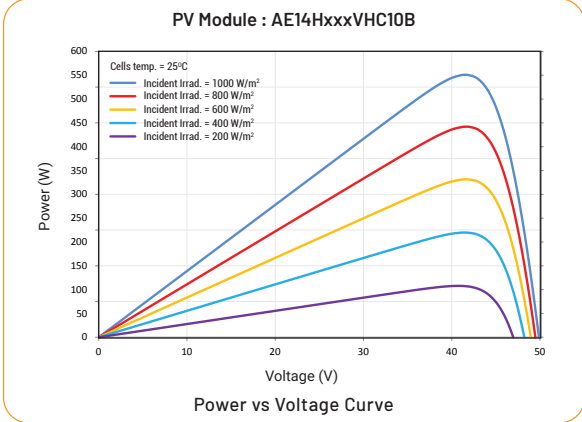
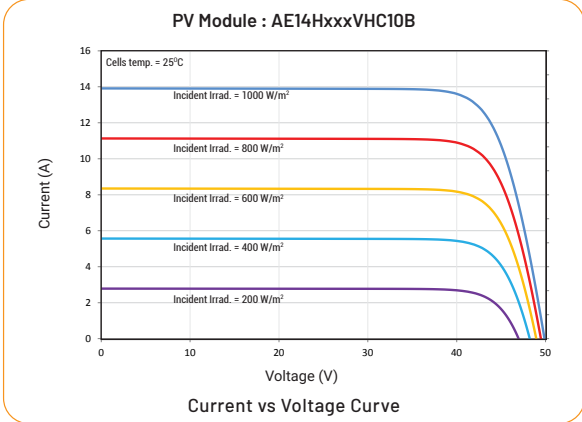
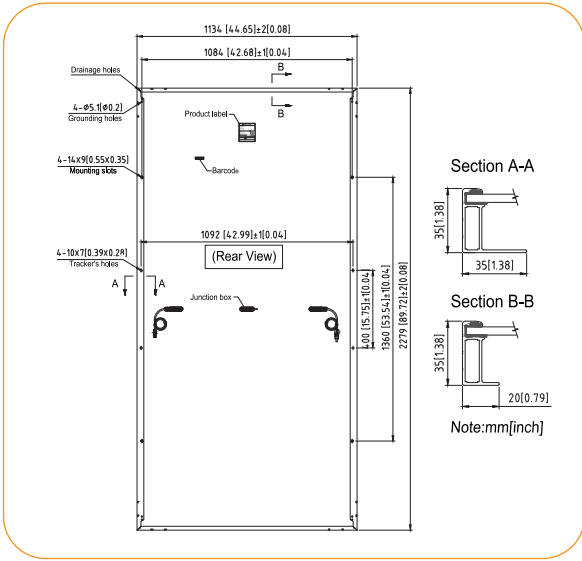
Mechanical Characteristics

Cell Type	Monocrystalline Silicon 182 mm
No. of Cells	144 (6 × 24)
Dimensions	2279 × 1134 × 35 mm
Weight	29.1 kg
Front Glass	3.2mm
Frame	Anodized aluminum alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4mm ² Portrait: (-) 350 mm and (+) 160 mm in length Landscape: (-) 1 400 mm and (+) 1400 mm in length or customized length
Connectors	MC4 EVO2, Cable 01S

Packing Configuration

Container	40' HC	Pieces per pallet	31
Pallets per container	20	Pieces per container	620
Packaging box dimensions	2310×1130×1245 mm	Packaging box weight	965 kg

PLSIND stands for Panasonic Life Solutions India Pvt. Ltd.



Dealer Information

Panasonic Life Solutions India Pvt. Ltd.

Registered Office : 12th Floor, Ambience Tower, Ambience Island, NH-48, Gurugram, Haryana - 122 002.

For queries and communication : 3rd Floor, B Wing, I-Think Techno Campus, Pokhran Road No 2, Thane (west) - 400607, Maharashtra.

T: (9122) 42228888 | F: (9122) 42228888 | Customer care no.: (022) 41304130 | WhatsApp No: 91360 28606

Email: solar@in.panasonic.com | www.lsin.panasonic.com

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



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

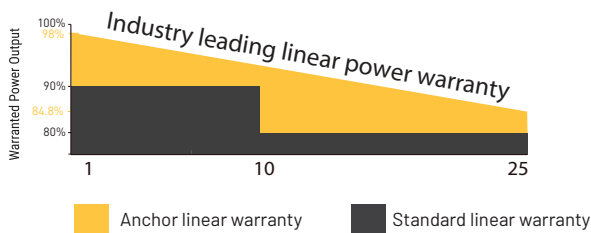
The IP 68 rated junction box ensures an outstanding waterproofing, supports installation in all orientations with less stress on the cables. Highly reliable performance with low resistance connectors ensures maximum output for higher energy production.

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

Higher power output

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



Weak light

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

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



3800Pa
5400Pa

Extended load tests

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



Harsh environment

Withstanding Harsh Environment

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



R-41108570



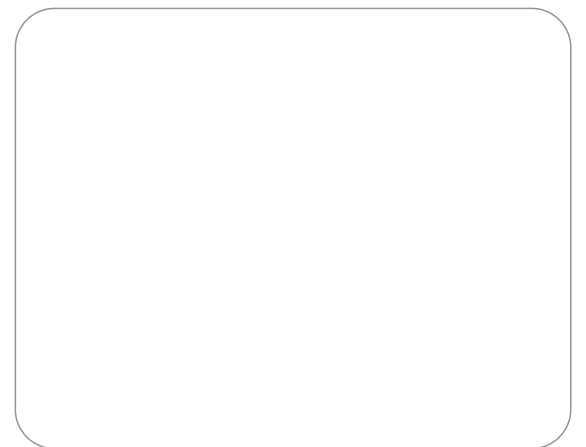
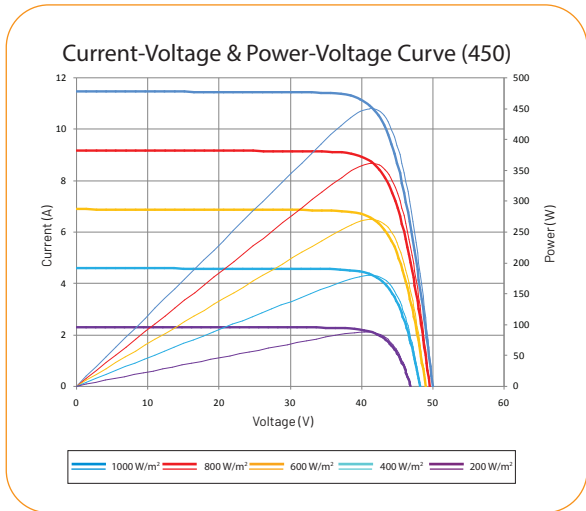
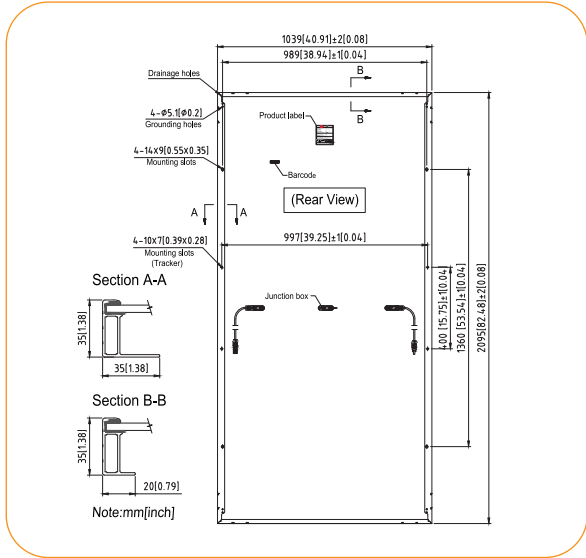
Certifications and standards:

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/m², 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/m², 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 ² 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	

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