

by Panasonic



430-450 watt

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 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy

Higher Power Output

High power output

Compared to 158.75mm module, the power output can increase 25W-30W



High PID resistant

Advanced cell technology and qualified materials lead to high resistance to PID



Excellent weak light performance

More power output in weak light condition, such as haze, cloudy, and morning



Lower operating temperature

Lower operating temperature and 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 and coastal



Trust Anchor to Deliver Reliable Performance Over Time

· World-class manufacturer of crystalline silicon photovoltaic modules

• Rigorous quality control meeting the highest international standards:

• Regular independently checked production process from international

Tested for harsh environments (salt mist, ammonia corrosion and sand

· Unrivaled manufacturing capacity and world-class technology

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****

IS09001, ISO 14001 and IS017025

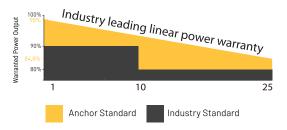
accredited institute/company

· Long-term reliability tests

blowing testing: IEC 61701, IEC 62716)***

• 2 x 100% EL inspection ensuring defect-free modules

• 25-year linear performance





DIN EN 61215 (VDE 0126 - 31) DIN EN 61730 - 1 (VDE 0126 Teil) DIN EN 61730 - 2 (VDE 0126 30 -1 - 30 - 2) Certifications and standards: IEC 61215, IEC 61730 IEC 62716 | IEC 61701





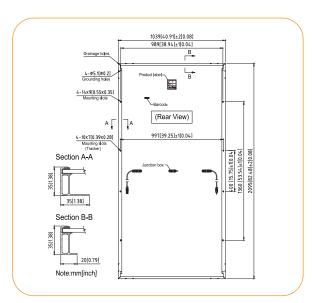


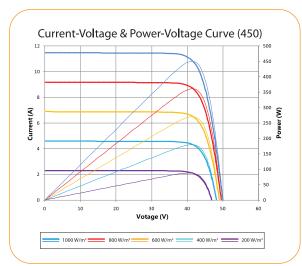


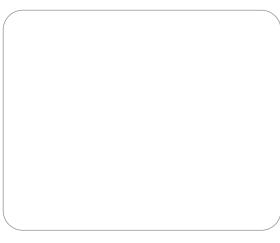












AE14HXXXVHC9B

Electrical Characteristics

STC	• AE14HX	XXVHC9B	}		
Maximum Power at STC (Pmax)	450 W	445 W	440 W	435 W	430 W
Optimum Operating Voltage (Vmp)	41.4 V	41.2 V	41.0 V	40.8 V	40.6 V
Optimum Operating Current (Imp)	10.87 A	10.81 A	10.74 A	10.67 A	10.60 A
Open Circuit Voltage (Voc)	49.2 V	49.0 V	48.8 V	48.6 V	48.4 V
Short Circuit Current (Isc)	11.61 A	11.54 A	11.47 A	11.40 A	11.32 A
Module Efficiency	20.7%	20.4%	20.2%	20.0%	19.8%
Operating Module Temperature	-40°C to + 85°C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5 W				

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)	339.4 W	335.8 W	332.7 W	327.7 W	324.6 W
Optimum Operating Voltage (Vmp)	38.2 V	38.0 V	37.8 V	37.6 V	37.5 V
Optimum Operating Current (Imp)	8.89 A	8.84 A	8.78 A	8.73 A	8.67 A
Open Circuit Voltage (Voc)	46.2 V	46.0 V	45.8 V	45.5 V	45.4 V
Short Circuit Current (Isc)	9.37 A	9.31 A	9.25 A	9.20 A	9.13 A

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 (Y)	-0.36%/°C	
Temperature Coefficient of Voc (β)	-0.304%/°C	
Temperature Coefficient of Isc (a)	0.050%/°C	

Mechanical Characteristics

Solar Cell	Mono Perc silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2095 × 1039 × 35 mm
Weight	24.5 kg
Front Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm2,
	Portrait: (-)350 mm and (+)160 mm in length
	Landscape: (-)1400 mm and (+)1400 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	2125×1130×1205 mm			
Packaging box weight	812 kg			

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

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