



570-590Watt

144 HALF-CELL N-TYPE TOPCON DUAL **GLASS BIFACIAL MODULE**

AE14TXXXVHC16B5





Aesthetics Meets

Performance

Special Cell Design



16 BB design decreases the distance between bus bars and finger grid line for power increase. Half-cell reduces internal losses to increase module efficiency.

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 ISO 45001
- 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



- Annual degradation: 0.40%
- Product warranty: 15 years
- Linear performance warranty: 30 years





High module conversion efficiency Module efficiency upto 22.8 % achieved through advanced cell technology and manufacturing process



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



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



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



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







* Please refer to PEWTR Standard Module Installation Manual for details. ** Please refer to PEWTR Product Warranty for details.







Dealer Information

• AE14TXXXVHC16B5

Electrical Characteristics

STC	AE14TXXXVHC16B5					
Wattage, Wp	570W	575W	580W	585W	590W	
Voltage at Max Power, Vmax	42.44V	42.56V	42.68V	42.79V	42.91V	
Open Circuit Voltage, Voc	51.16V	51.29V	51.42V	51.55V	51.68V	
Current at Max Power, Imax	13.43A	13.51A	13.59A	13.67A	13.75A	
Short Circuit Current, Isc	14.16A	14.24A	14.32A	14.40A	14.48A	
Module Efficiency	22.1%	22.3%	22.5%	22.6%	22.8%	
Operating Temperature (°C)	-40°C ~ +85°C					
Maximum System Voltage	1500 V DC (IEC)					
Maximum Series Fuse Rating	25 A					
Power Tolerance		0,	, +5Wp			

STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM=1.5 # PLSIND reserves the right to adjust the listed parameters without notice

NOCT	AE14TXXXVHC16B5					
Maximum Power at NOCT, Wp	434.6W	438.4W	442.2W	445.9W	448.8W	
Voltage at Max Power, Vmax	40.1V	40.2V	40.3V	40.4V	40.5V	
Open Circuit Voltage, Voc	48.6V	48.7V	48.8V	48.9V	49.1V	
Current at Max Power, Imax	10.85A	10.91A	10.98A	11.04A	11.07A	
Short Circuit Current, Isc	11.42A	11.48A	11.54A	11.61A	11.67A	

NOCT: 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.

BIFACIAL GAIN (80±5)%	AE14TXXXVHC16B5					
5% Power Pmax	598.5W	603.75W	609W	614.25W	619.5W	
15% Power Pmax	655.5W	661.25W	667W	672.75W	678.5W	
25% Power Pmax	712.5W	718.75W	725W	731.25W	737.5W	

Bifacial gains depends on the power plant design and albedo of installation site
 Power Bifaciality=Pmax(Rear)/Pmax(Front) and Pmax Front are tested under STC Measuring Tolerance: ±3%

Temperature Characteristics

Temperature Coefficient of Pmax(y)	-0.29 %/°C
Temperature Coefficient of Voc(β)	-0.25 %/°C
Temperature Coefficient of Isc(a)	0.046 %/°C
Nominal Module Operating Temperature (NMOT)	42±2°C

Mechanical Characteristics

Cell Type	N-type Topcon 91mm * 182mm
No.of Cells	144 (12x6 12x6)
Dimensions	2278 × 1134 × 30 mm
Weight	32.0 kg
Front Glass	2.0 mm semi-tempered glass
Rear Cover	2.0 mm semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	3 Split, IP68 Rated
Output Cables	4.0 mm ²
	(-) 350 mm and (+) 160 mm in length or customized length
Connectors	MC4 Compatible - STP-XC4

Packing Configuration

Container	40' HC
Pieces per pallet	36
Pallets per container	20
Pieces per container	720

PEWTR stands for Panasonic Electric Works Türkiye

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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.





530-550W att

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



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



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



Excellent weak light performance More power output in weak light cond haze, clouds, early and late sun hours



Lower operating temperature Lower operating temperature and temperatu



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



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 PLSTR Standard Module Installation Manual for details. ** Please refer to PLSTR Product Warranty for details.











Dealer Information

• AE14HXXXVHC10B

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/n², Module temperature 25 °C, AM=1.5 Tolerance of Wp is within +/- 3% ; # PLSTR 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(y)	-0.36 %/°C
Temperature Coefficient of $Voc(\beta)$	-0.304 %/°C
Temperature Coefficient of Isc(a)	+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

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