

N-Type TOPCon

490-510W

Half-Cell IN-TypeTopcon Dual
Glass All Black Bifacial Module

AE9TDXXXRHC16B6



22.9%

Maximum
Efficiency

25 YEARS

Product
Warranty

30 YEARS

Performance
Warranty

0~+5W

Positive Power
Tolerance

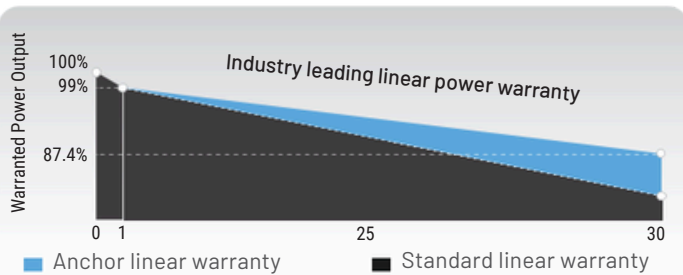
80% +/- 5%

Bifaciality
Factor

Industry-Leading Warranty based on Nominal Power

1% First Year
Degradation

0.4% Lowest Annual
Degradation



Certifications
and Standards:



IEC 61215, IEC 61730, IEC 61701, IEC 62716



Lowest Temperature
Coefficient $-0.29\%/^{\circ}\text{C}$



Withstands Harsh Environment



Apt for Residential and
Commercial & Industrial use



Tested for Wind Load (2400 pascals)
and Snow Load (5400 pascals)



Superior Resistance
to effects of PID



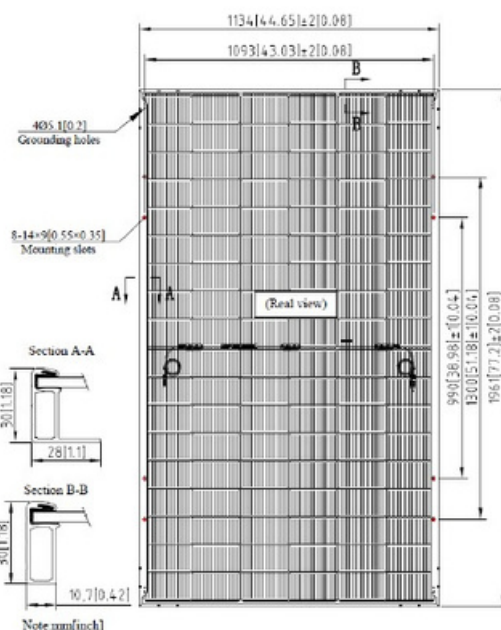
N-Type TOPCon with Zero LID Loss



*Please refer to PLSIND Standard Module Installation Manual and Product Warranty for details

Mechanical Characteristics

Solar Cell	N-type monocrystalline silicon
No. of Cells	108 (6 × 18)
Dimensions	1961 × 1134 × 30 mm (77.2 × 44.6 × 1.2 inches)
Weight	23.5 kg (51.81 lbs.)
Front/Back Glass	1.6 + 1.6 mm (0.063 + 0.063 inches) semi-tempered glass
Output Cables	4.0 mm ² , (-) 1400 mm (+) 1400 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40 °C - +70 °C
Maximum System Voltage	1500 V DC (IEC)
Connectors	STP-XC4 (Standard)/ MC4-EVO2 (Optional)
Maximum Series Fuse Rating	35 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(80 ± 5)%
Frame	Anodized aluminum alloy frame
Packing Configuration	36 pieces per pallet 864 pieces per container /40'HC 1987×1120×1255 mm per pallet 893 kg per pallet



Electrical Characteristics (STC)

Module Type	AE9TDXXXRHC16B6				
Maximum Power (P _{max} /W) Optimum	510	505	500	495	490
Optimum Operating Voltage (V _{mp} /V)	33.70	33.50	33.30	33.10	32.90
Optimum Operating Current (I _{mp} /A)	15.13	15.07	15.02	14.95	14.89
Open Circuit Voltage (V _{oc} /V)	40.54	40.33	40.12	39.91	39.70
Short Circuit Current (I _{sc} /A)	15.95	15.91	15.87	15.83	15.79
Module Efficiency (%)	22.9	22.7	22.5	22.3	22.0

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Measuring tolerance is within +/- 3%;

Electrical Characteristics (BNPI)

Maximum Power(P _{max} /W)	565	560	554	548	543
Optimum Operating Voltage (V _{mp} /V)	33.30	33.10	32.90	32.80	32.70
Optimum Operating Current (I _{mp} /A)	16.97	16.92	16.84	16.71	16.61
Open Circuit Voltage (V _{oc} /V)	40.76	40.55	40.34	40.13	39.91
Short Circuit Current (I _{sc} /A)	17.67	17.63	17.58	17.54	17.50

BNPI: Irradiance front 1000 W/m², rear 135 W/m², module temperature 25 °C, AM=1.5;

Temperature Characteristics

Temperature Coefficient of P _{max}	-0.29%/°C
Temperature Coefficient of V _{oc}	-0.25%/°C
Temperature Coefficient of I _{sc}	0.046%/°C

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.

Graphs Current-Voltage & Power-Voltage (505W)

