## AlpenSeriesA12



## WP-XXX/A12-110H

110-cell Bifacial Double Glass HJT Solar Module



Up to 22.2% efficiency for double glass module



**SMBB HJT Half-Cut Technology** Unique 15BB HJT Cell with Half-cut design



**Aesthetical Design** Black but transparent outfit, elegant for any rooftop



**Maximum Durability & Reliability** 15/30 years warranty, long-term hign performance ensured

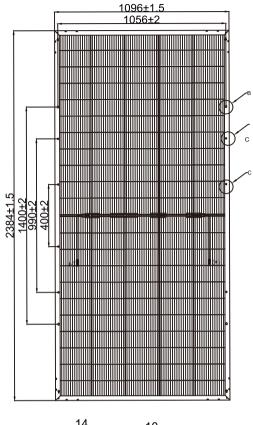






\*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on going innovation, R&D enhancement,WattPower technology Co., Ltd. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

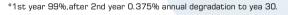
## Engineering Drawings

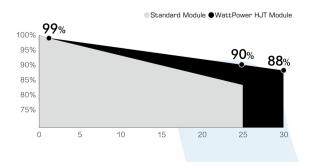




Temperature Characteristics	
Nominal Operating Cell Temp. (NOCT)	44°C(±2°C)
Temperature Coefficient of Pmax	<b>-0.26 %/</b> °C
Temperature Coefficient of Voc	- <b>0.24 %/</b> °C
Temperature Coefficient of Isc	<b>0.04 %/</b> °C

Certifications & Warranty		
Safety	Class II	
Fire Rating	Class A	
Product Warranty	15 Yrs Workmanship	
Performance Warranty of Pmax	30 Yrs Linear Warranty*	





Electrial Characteristics(STC)				
Model Number	WP-565/A12 -110H	WP-570/A12 -110H	WP-575/A12 -110H	WP-580/A12 -110H
Maximum Power (Pmax)	565W	570W	575W	580W
Max Module Efficiency(%)	21.6%	21.8%	22.0%	22.2%
Voltage at Max Power (Vmp)	34.35V	34.53V	34.71V	34.88V
Current at Max Power (Imp)	16.45A	16.51A	16.57A	16.63A
Open Circuit Voltage (Voc)	40.96V	41.16V	41.35V	41.54V
Short Circuit Current (lsc)	17.25A	17.31A	17.37A	17.43A
Operating Module Temperatu	ıre	-40 to $+85\mathrm{C}$		
Maximum System Voltage		DC1500V (IEC)		
Maximum Series Fuse		30A		
Rating Power Sorting		0~+5W		

 $^{\rm *}STC:$  Irradiance 1000 W/m², module temperature 25 C, AM=1.5; Best in Class AAA solar simulator used, power measurement uncertanity is within +/- 3%.

NOCT	565W	570W	575W	580W
Max. Power at NOCT (Pmax)	430W	433W	437W	441W
Voltage Max. Power (Vmp)	32.78V	32.96V	33.13V	33.29V
Current Max Power (Imp)	13.11A	13.15A	13.20A	13.25A
Open Circuit Voltage (Voc)*	39.09V	39.28V	39.46V	39.65V
Short Circuit Current (Isc)*	13.90A	13.95A	14.00A	14.05A

\*NOCT:  $800W/m^2$  Iddadiance, 20C ambient temperature, AM=1.5, wind speed 1m/s. Values are based on RETC certified results from a light-soaked module.

BSTC	565W	570W	575W	580W
Max. Power at NOCT (Pmax)	623W	629W	634W	640W
Voltage Max. Power (Vmp)	34.35V	34.53V	34.71V	34.88V
Current Max Power (Imp)	18.14A	18.22A	18.27A	18.35A
Open Circuit Voltage (Voc)*	40.96V	41.16V	41.35V	41.54V
Short Circuit Current (Isc)*	19.02A	19.10A	19.15A	19.23A

\*BSTC:Front side irradiation 1000W/m<sup>2</sup>, back side reflection irradiation 135W/m<sup>2</sup>, spectrum AM1.5, ambient temperature 25  $^\circ$ C.

Mechanical Characteristics			
Laminate Structure	Glass/ POE/ Cells/ POE/ Glass		
Cell Type	HJT Mono 210 x 105 mm		
Cell Connection	110 (55x2)		
Module Dimensions	2384x 1096 x 35 mm		
Weight	32.3 kg		
Junction Box	IP67 / IP68		
Output Cable	4mm <sup>2</sup> , 200mm in length,length can be customized		
Connectors Type	UV Resistant Cable/Compatible MC4		
Frame	Anodised Aluminum Alloy		
Glass Thickness (F) 2.0mm Anti-Reflective surface Solar Glass,(B) 2.0mm Solar Glass			
* Mechanical load test report per Solar PTL (IEC 61730)			

 Packing Information

 Module per Pallet
 31 pcs

 Module per 40' container
 620 pcs