

19.39% EFFICIENCY\*

345-380W OUTPUT POWER

**72** CELLS

\*for 380W panel

### **MAIN PARAMETERS**

23.3KG

5MM

1980 x 990MM

WEIGHT

**THICKNESS** 

**DIMENSIONS** 

#### **KEY FEATURES**



#### **EXTENDED WARRANTY**

12 years product warranty on workmanship & materials, 30 years warranty on linear power output.



#### PID FREE

Guaranteed free of PID (potential induced degradation).



#### **ULTRA LIGHT & ULTRA THIN**

No frame, no back sheet. 2mm thermally tempered glass exclusively used as front and back protection material.



### **EASY CLEANING**

Frameless design, no dust trapped on the edge. The nano coating which is applied during the anti-reflection treatment process ensures a surface where dit particles roll off.



#### **FIRE RESISTANT**

Class A fire protection. Glass-glass design helps to save module from damages caused by arc and hot spots, eliminating potential dangers of fire.



#### FREE OF MICRO CRACKS

Fully symmetrical structure to prevent micro cracks. No micro cracks under harsh transportation, complicated handling and installation conditions, and during ifetime of module operation.



## **OUTSTANDING PERFORMANCE**

Certified to withstand high wind loads of 2400Pa and snow loads of 5400Pa.



## INCREASED POWER GENERATION

Power generated on both sides, up to 30% yield increase.



# LINEAR WARRANTY PACKAGING CONFIGURATION

100% 97%					_	nal solar module lin solar module linear	
90%							
80%							
years	5	10	15	20	25	30	
		12 years proi	DUCT WARF		30 YEARS	PERFORMANCE WA	RRANTY

Modules per box	38 pieces			
Modules per 20' container	380 pieces			
Modules per 40' container	836 pieces			

#### \* Declaration:

The technical specifications in this document may be slightly biased and Almaden does not guarantee its complete accuracy. Due to continuous technological innovation and product optimization, Almaden reserves the right to adjust the specification in this document at any time without prior notice. When signing a contract, the client should obtain the latest product datasheet as part of a binding contract.













Version: AM-JAN-21

## DUAL GLASS MODULE | BIFACIAL CELLS



### **ELECTRICAL SPECIFICATION (STC)**

Rated Power (Pmpp)	345 W	350 W	355 W	360 W	365 W	370 W	375 W	380 W
Power Output Tolerance (W)	0~+5							
Rated Current (Impp) (A)	9.07	9.13	9.19	9.25	9.3	9.39	9.48	9.57
Rated Voltage (Vmpp) (V)	38.05	38.34	38.63	38.92	39.25	39.41	39.57	39.73
Short Circuit Current (Isc) (A)	9.5	9.56	9.62	9.68	9.77	9.85	9.93	10.01
Open Circuit Voltage (Voc) (V)	47.66	47.72	47.78	47.84	47.94	48.01	48.08	48.15
Efficiency	17.60%	17.86%	18.11%	18.37%	18.62%	18.88%	19.13%	19.39%

### BIFACIAL OUTPUT-REARSIDE POWER GAIN

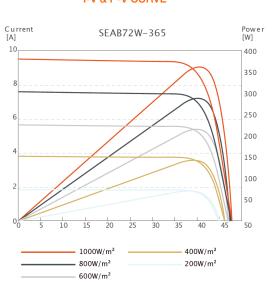
5%	Maximum Power (Pmax)	362 W	368 W	373 W	378 W	383 W	389 W	394 W	399 W
370	Module Efficiency STC	18.48%	18.75%	19.02%	19.28%	19.55%	19.82%	20.09%	20.36%
15%	Maximum Power (Pmax)	397 W	403 W	408 W	414 W	420 W	426 W	431 W	437 W
1570	Module Efficiency STC	20.24%	20.53%	20.83%	21.12%	21.41%	21.71%	22.00%	22.29%
25%	Maximum Power (Pmax)	431 W	438 W	444 W	450 W	456 W	463 W	469 W	475 W
25%	Module Efficiency STC	22.00%	22.32%	22.64%	22.96%	23.28%	23.59%	23.91%	24.23%

### **ELECTRICAL DATA (NOCT)**

•	,							
Maximum Power (Pmax) (W)	258.68	262.05	265.42	268.79	272.2	276.03	279.86	283.69
Maximum Power Current (Imp) (A)	7.25	7.28	7.31	7.34	7.37	7.43	7.49	7.55
Maximum Power Voltage (Vmp) (V)	35.79	36.07	36.35	36.63	36.91	37.15	37.39	37.63
Short Circuit Current (Isc) (A)	7.71	7.74	7.77	7.8	7.83	7.89	7.95	8.01
Open Circuit Voltage (Voc) (V)	44.18	44.31	44.44	44.57	44.7	44.79	44.88	44.97

NOCT:Irradiance at  $800W/m^2,\,Ambient\,Temperature\,20$  , Wind Speed 1m/s.

## I-V & P-V CURVE



### MECHANICAL SPECIFICATION

Cell Type	Bifacial cells
Cell Dimension (mm)	156.75 x 156.75
Module Dimension (mm)	1980±2 x 990±2 x 5 (without J-Box)
Weight Size	23.3kg
Front Glass	2mm thermally tempered AR glass
Encapsulant	POE
Back Glass	2mm thermally tempered glass
Juction box	IP68 (three bypass diodes)
Cable	4mm²
Connector	MC4 / MC4 equivalent

#### TEMPERATURE COEFFICIENT

NOCT (Normal Operating Cell Temperature)	45±2°C
Temperature Coe cient of Isc (α)	0.06%/°C
Temperature Coe cient of Voc (β)	-0.3%/°C
Temperature Coe cient of Pmpp (γ)	-0.39%/°C

#### **OPERATING CONDITIONS**

Bifaciality*	70%±5%
Operational Temperature	-40~+85°C
Maximum Static Load	3600Pa
Maximum Wind Load	1600Pa
Maximum System Voltage	IEC:1000/1500V
Maximum Series Fuse Rating	20A

STC : Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. \*Bifaciality=Pmax,rear/Rated Pmax,front

### **DIMENSIONS**

