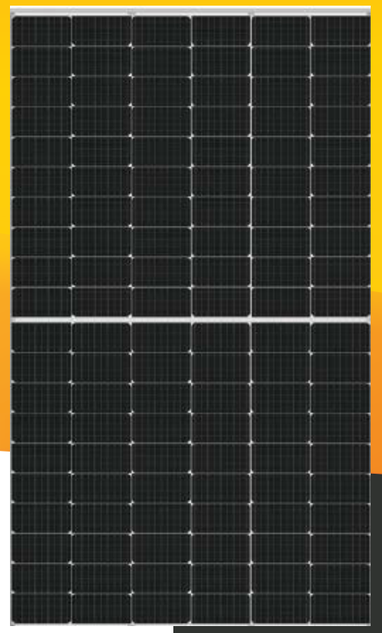
SOLAR4AMERICA

120 HALF-CELL | BIFACIAL

S4AI-120B-380C

9BB Half-Cut Mono Perc



360W-380W

KEY FEATURES

9BB Half-Cut Cell Technology

New circuit design, lower internal current, lower RS loss GA doped wafer, attenuation <2% (1st year) / 0.55% (Linear)

Significantly Lower the Risk of Hot Spot

Special circuit design with much lower hot spot temperature

Excellent Anti-PID Performance

2 times of industry standard Anti-PID test by TUV SUD

Wider Application

No water-permeability and high wear-resistance, can be widely used in high-humid, windy and dusty area

IP68 Junction Box

High waterproof level

MODULE EFFICIENCY

20.9%

HIGH POWER OUTPUT

380W

PERFORMANCE WARRANTY

12 YEARS QUALITY ASSURANCE

25 YEARS POWER OUTPUT GUARANTEE

Solarjuice American Inc.

6950 Preston Avenue, Livermore, CA 94551
888-575-1940

www.solar4america.com
customercare@solar4america.com

Rev. 10/0-/2022

S4AI-120B-380C

120 Half-Cell | 9BB Half-Cut Mono Perc | Transparent

ELECTRICAL PARAMETERS

Module	S4AI-120B				
Maximum Power at STC(Pmax)	360W	365W	370W	375W	380W
Open-Circuit Voltage(Voc)	41.1V	41.3V	41.5V	41.6V	41.7V
Short-Circuit Current(Isc)	11.53A	11.63A	11.72A	11.85A	11.98A
Optimum Operating Voltage (Vmp)	33.7V	33.9V	34.1V	34.2V	34.6V
Optimum Operating Current(Imp)	10.69A	10.77A	10.86A	10.98A	10.99A
Module Efficiency	19.8%	20.0%	20.3%	20.6%	20.9%
Power Tolerance	0 ~ +5W				
Maximum System Voltage	1500V DC(UL/IEC)				
Maximum Series Fuse Rating	20A				
Operating Temperature	-40 ℃ to + 85℃				

*STC:Irradiance 1000W/m², module temperature 25, AM=1.5
Optional black frame or white frame module according to customer requirements

NMOT

Module	S4AI-120B				
Maximum Power	267W	271W	275W	279W	283W
Open Circuit Voltage （Voc）	38.8V	39.0V	39.2V	39.4V	39.6V
Short Circuit Current (Isc)	9.30A	9.39A	9.48A	9.58A	9.65A
Maximum Power Voltage (Vmp)	31.8V	32.0V	32.2V	32.4V	32.6V
Maximum Circuit Current (Imp)	8.40A	8.47A	8.54A	8.61A	8.68A
NMOT	45℃±2℃				

*NMOT：Irradiance 800W/m², ambient temperature 20ºC, wind speed 1 m/s

BIFACIAL REARSIDE POWER GAIN

Electrical characteristics with different rear side power gain for reference(reference to 380W front)

Module		S4AI-120B Bifacial ity: 70±5%			
Maximum Power	Pmax Gain	Voc/V	Isc/A	Vmp/V	Imp/A
399W	5%	41.70	12.58	34.6	11.53
418W	10%	41.70	13.17	34.6	12.15
437W	15%	41.70	13.77	34.6	12.70
456W	20%	41.70	14.37	34.6	13.26
475W	25%	41.70	14.98	34.6	13.80

*bifacial gain:the additional gain from the rear side compared to the power of the front side at the standard test condition.
It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

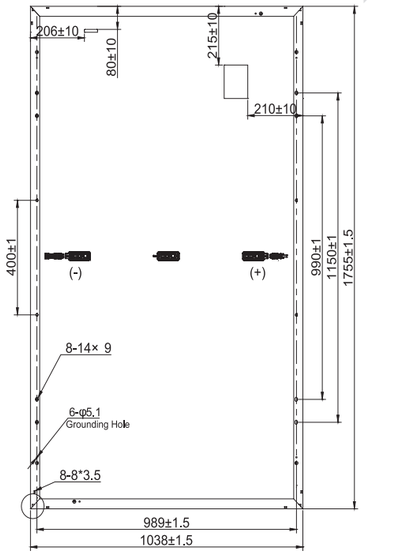
MECHANICAL SPECIFICATION

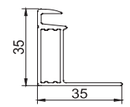
Solar Cells	Monocrystalline 166 × 83 mm
No.of Cells	120 (6 × 20)
Dimensions	1755mm×1038mm×35mm
Weight	19.5 kg
Front Glass	High transmission tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68
Cable	4mm² (UL/IEC) Length: (+) 400mm (-) 200mm / length can be customized
Connectors	MC4 / MC4 Compatible
Packaging Configuration	31pcs / box, 858pcs / 40'HQ Container

TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	γ (Pm)	-0.39%/
Temperature Coefficient of Voc	β (Voc)	-0.29%/
Temperature Coefficient of Isc	α (Isc)	0.049%/

TECHNICAL DRAWINGS





I-V CURVE