

**S4A550-144MH10**

# 550W

144 Half-cut Bifacial  
Transparent Back Sheet  
10BB Mono Perc

**530W-550W**



America's Solution for  
Quality, Performance,  
and Reliability.

Our products are manufactured locally in the US,  
under the highest quality standards.



**10BB Half-Cut Cell Technology**

Efficient circuit design, lower internal current, lower RS loss, GA doped wafer



**Significantly Lower Risk of Hot Spot**

Special circuit design with much lower hot spot temperature



**Excellent Anti-PID Performance**

2X industry standard Anti-PID



**Lower LCOE**

2% more power generation



**IP68 Junction Box**

High waterproof level

\*Subject to warranty terms and conditions

MODULE EFFICIENCY

**21.3%**

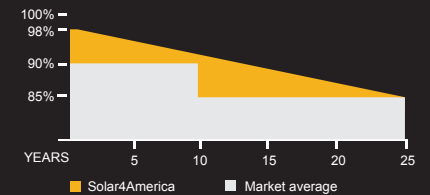
HIGH POWER OUTPUT

**550W**



Linear Power  
**WARRANTY**

0.55% year 2-25  
Annual Degradation



Solar4America Technology Inc. is headquartered and has module production facilities in Sacramento, California. Our S4A branded product line offers high quality, exceptional performance, and great value to our customers. Our state-of-the-art manufacturing facility uses industry-leading automated production equipment to optimize product performance and quality.

# S4A550-144MH10

144 Half-cut Cell | 10BB Mono Perc | Transparent Back Sheet

Rev. 01/17/2023

## ELECTRICAL PARAMETERS

Module Type	S4A530		S4A535		S4A540		S4A545		S4A550	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Testing Condition										
Maximum Power - Pmax (W)	530	395	535	398	540	402	545	406	550	410
Maximum Power Voltage - Vmpp (V)	41.32	38.6	41.48	38.7	41.64	38.8	41.80	39.0	41.96	39.1
Maximum Power Current - Imp (A)	12.83	10.24	12.90	10.30	12.97	10.36	13.04	10.41	13.11	10.47
Open Circuit Voltage - Voc (V)	49.32	46.4	49.46	46.5	49.60	46.7	49.76	46.8	49.92	47.0
Short Circuit Current - Isc (A)	13.72	11.06	13.79	11.12	13.86	11.17	13.93	11.23	14.00	11.28
Module Efficiency	20.50%		20.70%		20.90%		21.10%		21.30%	

STC: irradiance 1,000 W/m<sup>2</sup>; Spectra at AM 1.5; module temperature 25°C. Power output tolerance: 0~+5W. Measuring tolerance of power: ±3%  
 NMOT: irradiance 800 W/m<sup>2</sup>; Spectra at AM 1.5; Cell temperature 45°C; Ambient temperature 20°C. Wind speed 1m/s

## BIFACIAL REARSIDE POWER GAIN Electrical characteristics with different rear side power gain for reference to 550W front.

Module	Bifaciality: 70±5%				
Maximum Power	Pmax Gain	Voc/V	Isc/A	Vmp/V	Imp/A
578W	5%	49.92	14.70	41.96	13.77
605W	10%	49.92	15.40	41.96	14.42
633W	15%	49.92	16.10	41.96	15.08
660W	20%	49.92	16.80	41.96	15.73
688W	25%	49.92	17.50	41.96	16.39

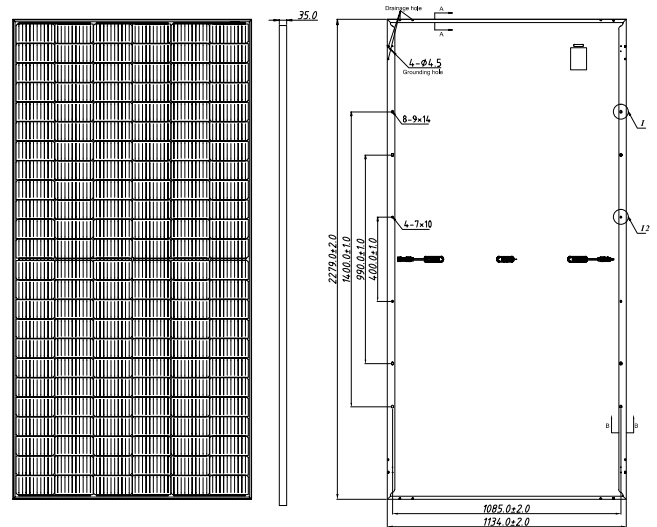
Bifacial gain: the additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle, etc.) and albedo of the ground.

## TEMPERATURE CHARACTERISTICS

NMOT	43°C (±2°C)
Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Isc	+0.048%/°C
Temperature Coefficient of Voc	-0.26%/°C

## MATERIAL CHARACTERISTICS

Dimensions	2279×1134×35mm (L×W×H)
Weight	28kg
Frame	Silver anodized aluminum alloy
Glass	3.2 mm coated tempered glass
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Sheet	Transparent
Solar Cells	144(6×24) monocrystalline (182mm×91mm)
Junction Box	IP68, 3 bypass diodes
Cable & Connector	Length 1400mm, 1x4mm <sup>2</sup> / MC4 and MC4 Compatible



## MAXIMUM RATINGS

Maximum System Voltage (V)	1500
Series Fuse Rating (A)	25

## PACKAGING

Pallet Dimensions	2304x1130x1247mm
Pallet Quantity	31 Modules
Truck (53') Quantity	744 Modules

## SYSTEM DESIGN

Temperature Range	-40°C to +85°C
Mechanical Load Front	5,400 Pa
Mechanical Load Back	2,400 Pa
Safety Protection Class	Class II

