

PIONEER²

550W

144 Half-cut Bifacial • 10BB Mono Perc •
 Transparent/Transparent White Grid Back Sheet
 S4A550-144MH10ST



America's Solar Module™

The best U.S.-built solar solution for quality, performance and reliability. S4A products are manufactured on American soil in accordance with 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



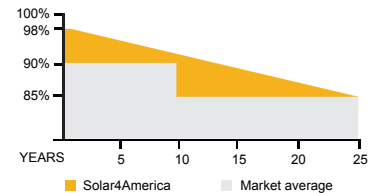
Strong Built
 Hail Test at 45mm

MODULE EFFICIENCY

21.3%

Linear Power WARRANTY

0.55% year 2-25
 Annual Degradation



UL 61730 IEC TS 63342
 UL 790 IEC 60068
 IEC 61730 IEC 62716
 IEC 61215* IEC 61701
 IEC TS 62804 *3X IEC



Find our CEC listing under our parent company SOLARJUICE

Solar4America Technology Inc.

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*Subject to warranty terms and conditions

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Solar4America Technology Inc. is headquartered in Sacramento, California with module production facilities in Sacramento and Sumter, SC and cell production facilities in Sumter. S4A products offer durability and exceptional performance to our customers at great value. Our state-of-the-art manufacturing facilities use industry-leading automated production equipment to optimize product performance and quality.

S4A550-144MH10STT

Rev. 02/07/2024

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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	41.8	39	41.96	39.1
Maximum Power Current - Imp (A)	12.83	10.24	12.9	10.3	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	49.6	46.7	49.76	46.8	49.92	47
Short Circuit Current - Isc (A)	13.72	11.06	13.79	11.12	13.86	11.17	13.93	11.23	14	11.28
Module Efficiency	20.50%		20.70%		20.90%		21.10%		21.30%	

STC: irradiance 1,000 W/m²; Spectra at AM 1.5; Module temperature 25°C. Power output tolerance: 0~+5W. Measuring tolerance of power: ±3%
 NOCT: irradiance 800 W/m²; Spectra at AM 1.5; Cell temperature 45°C; Ambient temperature 20°C. Wind speed 1m/s

BIFACIAL REAR SIDE POWER GAIN

Electrical characteristics with different rear side power gain for reference to 580W front.

Module	Bifaciality: 70±5%				
Maximum Power	Pmax Gain	Voc/V	Isc/A	Vmp/V	Imp/A
578W	5%	49.92	14.7	41.96	13.77
605W	10%	49.92	15.4	41.96	14.42
633W	15%	49.92	16.1	41.96	15.08
660W	20%	49.92	16.8	41.96	15.73
688W	25%	49.92	17.5	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

NOCT	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	89.69 x 44.65 x 1.38in (2278 x 1134 x 35mm)
Weight	61.73lbs (28kg)
Frame	Silver anodized aluminum alloy
Glass	3.2mm anti-reflective coated tempered glass
Back Sheet	Transparent back sheet
Solar Cells	144(6 x 24) monocrystalline 182 x 91mm
Junction Box	IP68, 3 bypass diodes
Cable & Connector	Length +15.75in, -7.87in / +55.12in, -55.12in 1x4mm ² / MC4/PV-CO02/PV-GZX1500

MAXIMUM RATINGS

Maximum System Voltage (V)	1500
Series Fuse Rating (A)	30

PACKAGING

Pallet Dimensions	92.52 x 45.67 x 49.61in (2350 x 1160 x 1260mm)
Pallet Quantity	31 Modules
Truck (53') Quantity	651 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
Module Fire Performance	Type 1

