

Bifacial-Mono PERC 144 Cells

525Wp - 545Wp SPI-540-144MHBC

THE SUNSPRINT ADVANTAGE



High Module Conversion Efficiency

Module efficiency up to 21.0 % achieved through advanced cell technology and manufacturing process.



Advanced Technology

MBB- Multi Busbar (10BB) / Halfcut MONOPERC cells / Ga Doped Wafers



Positive Tolerance Cell Output

Power output is guaranteed with a positive tolerance of 0-+4.99%.



Excellent performance in low-light

Advanced glass and surface texturing allow for excellent performance in low-light environments.



Extended Wind and Snow load Tests

Certified to withstand wind load (2400 Pascal) and snow load (5400 Pascal).



Excellent PID Resistance

Excellent Anti-PID performance, guaranteed limited power degradation and certified for up-to 288 Hrs.



Withstanding a Harsh Environment

Reliable quality leads to better sustainability, even in harsh environments such as deserts, farms and coastal areas with ammonia exposure.



Rigorous Testing Criteria

100% EL inspection, ensuring defect-free modules.



Current Sorting

To minimize the current mismatch losses, to maximize system power output.



Bifaciality factor 70 + 5%

The ratio of rear efficiency in relation to the front efficiency subject to the same irradiance



CERTIFICATIONS & STANDARDS

IEC 61215, IEC 61730, IEC 61701, UL 61730,UL 61215, CEC, IEC 61853-1 lam, IEC 62759, IEC 62804, IEC 62782,IEC 60068-2-68, IEC 61853, Is 14286

*Hail Test Performed at 45mm





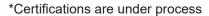


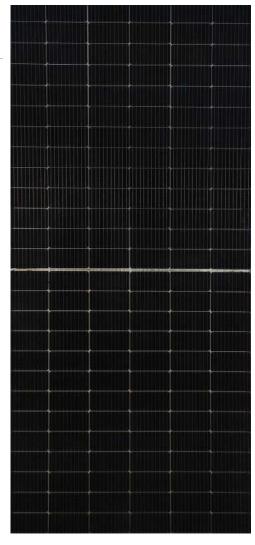








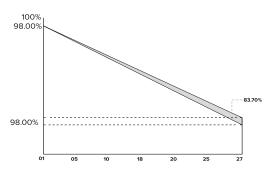








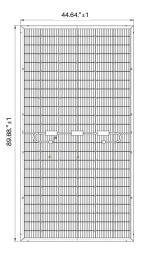
LINEAR PERFORMANCE WARRANTY

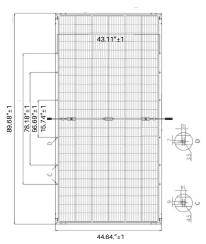












ELECTRICAL PERFORMANCE DATA

Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Peak Power Pmax(0 - + 4.99)	525Wp	389.07Wp	530Wp	393.6Wp	535Wp	397.32Wp	540Wp	400.66Wp	545Wp	403.46Wp	
Maximum voltage	41.34V	38.22V	41.5V	38.4V	41.65V	38.5V	41.8V	38.6V	42.08V	38.72V	
Maximum current	12.71A	10.18A	12.78A	10.25A	12.86A	10.32A	12.94A	10.38A	13.03A	10.42A	
Open circuit voltage,	49.6V	45.94V	49.8V	46.176V	49.98V	46.416V	50.16V	46.54V	50.49V	46.56V	
Short circuit current,	13.35A	10.78A	13.42A	10.85A	13.5A	10.91A	13.59A	10.98A	13.66A	11.03A	
Module Efficiency	2	20.34%		20.54%		20.7%		20.9%		21.1%	
Operating Temperature	-40°F~+185°F			Т	Temperature Coefficients of Isc				~+0.	~+0.046%°F	

Operating Temperature	-40°F~+185°F	Temperature Coefficients of Isc	~+0.046%°F
Maximum System Voltage	1500VDC	Nominal Operating Cell Temperature (NOCT)	45±2°F
Maximum Series Fuse Rating	30A	Fire Safety	Type-I
Power Tolerance	O~+3%	Protection Class II	Class-A
Temperature Coefficients of Pmax	-0.30%°F	Safety Class	Class II
Temperature Coefficients of Voe	-0.26%°F		

^{**}STC: Irradiance 1000W/m2 module temperature 25°C, AM =1.5; NOCT: Irradiance 800W/m2, ambient temperature 20°C, AM=I.5, Wind Speed Im/s. Average power reduction of 4.5% at 200W/m2 as per IEC 60904-1. Measuring Uncertainty +/-3%* Power gain from the rear side depends on the ground reflectance (Albedo) & Bifaciality factor.

Bifacial Gain	Measurement	525	530	535	540	545
5%	Max. Power (Pmax)	550Wp	555Wp	560Wp	565Wp	570Wp
	Module Efficiency	21.29%	21.48%	21.68%	21.87%	22.07%
10%	Max. Power	575Wp	580Wp	585Wp	590Wp	595Wp
	Module Efficiency	22.26%	22.45%	22.65%	22.84%	23.03%
15%	Max. Power	600Wp	605Wp	610Wp	615Wp	620Wp
	Module Efficiency	23.23%	23.42%	23.61%	23.81%	24.00%

MODULE MECHANICAL DATA

Specification	Data
Cell Type	Half Cut- PERC Monocrystalline, 144 Cells
Dimensions (Inches)	89.68"x44.64"x1.3"
Weight (lbs)	28 kgs
Front Cover (Inches)	0.12" in Tempered Glass
Rear Cover	Transparent Backsheet
Frame Material	Silver Anodized Aluminum Profile, (Black frame on request)
J-Box	IP68, 3 Diodes
Cable (Inches)	13.77", 0.0062 sq in
Connectors	MC4 Connector
Container Type	40' HC
No. of Pallet	20
Piece per Pallet	31
Total Qty. of Modules	620

I-V CHARACTERISTICS AT DIFFERENT IRRADIATIONS

