

## 530-550 Watt Module 144 Half Cut Monocrystalline PERC

Model: AA-550US-6x24GW



[Bilasolar.com](http://Bilasolar.com)



### Cells Made in USA, Modules Made in Indiana

Proudly made in the USA with cells that qualify for domestic content requirements.



### Enhanced Bifacial Performance

Bifacial Mono PERC cells provide more power output in low light conditions increasing overall energy yield.



### Positive Power Tolerance

Positive power tolerance of 0~+5W guaranteeing more power.



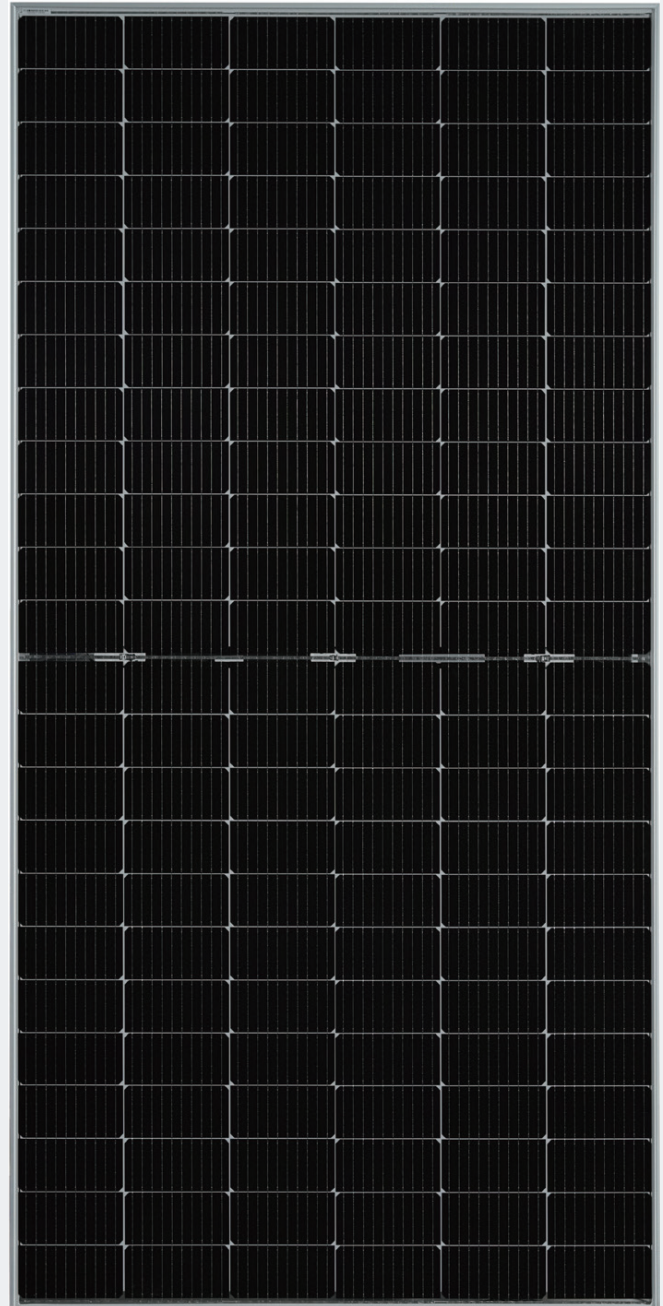
### Durable Mechanical Construction

Large format module certified to withstand snow loads (up to 5400 Pa) and extreme wind (up to 2400 Pa).



### Quality Standards & Certifications

Quality components, quality built, quality performance. Conforms to UL 61730 and UL 61215.



## PREMIUM PRODUCT WARRANTY

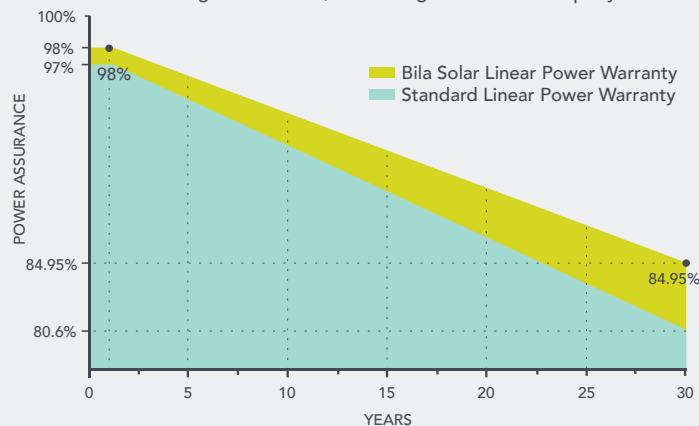
12  
Years

Product Materials & Workmanship Warranty\*

30  
Years

Linear Power Performance Warranty\*

1st Year degradation <2%, annual degradation <0.45% per year.



\*According to the applicable Bila Solar, Inc. Limited Product Warranty.

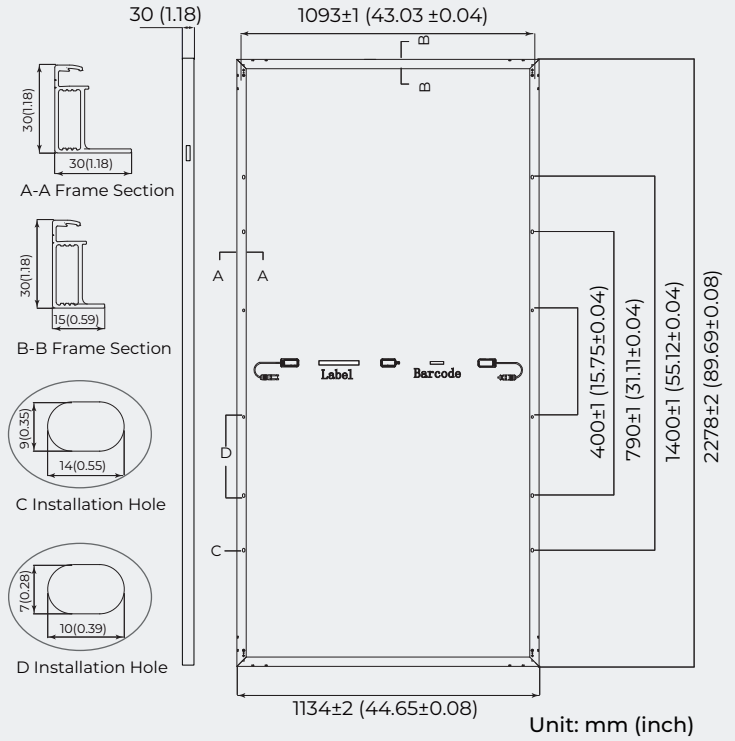
Caution: Read installation manual before using the product. Specifications included in this data sheet are subject to change without notice. © 2025 Bila Solar, Inc. All rights reserved.

## Mechanical Specifications

Solar Cell	Mono PERC 182mm
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 30mm (89.69 × 44.65 × 1.18in.)
Weight	27.6kg (60.85lbs)
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm <sup>2</sup> (IEC), 12 AWG (UL) +400/-200mm (+15.75/-7.87in.) or customized
Connector	MC4 or similar
Front Cover	3.2mm (0.126in.) semi-tempered AR glass
Container	36 pcs/pallet, 576 pcs/53' dry van

## Operating Parameters

Max. System Voltage	DC 1500V (IEC/UL)
Operating Temperature	-40°C ~ +85°C (-40°F ~ +185°F)
Max. Fuse Rating	25A
Frontside Max. Loading	5400Pa (112lb/ft <sup>2</sup> )
Backside Max. Loading	2400Pa (50lb/ft <sup>2</sup> )
Fire Resistance	UL Type 1



## Electrical Characteristics - STC

Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM 1.5, Test uncertainty for Pmax: ±3%

Parameter	550	545	540	535	530
Maximum Power at STC (Pmax/W)	550	545	540	535	530
Power Tolerance (W)	0 ~ +5				
Rated Voltage @ MPP (Vmp/V)	41.96	41.80	41.64	41.47	41.31
Rated Current @ MPP (Imp/A)	13.11	13.04	12.97	12.90	12.83
Open Circuit Voltage (Voc/V)	49.90	49.75	49.60	49.45	49.30
Short Circuit Current (Isc/A)	14.00	13.93	13.86	13.79	13.72
Module Efficiency	21.3%	21.1%	20.9%	20.7%	20.5%

## Electrical Characteristics - NMOT

Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM 1.5, wind speed 1 m/s.

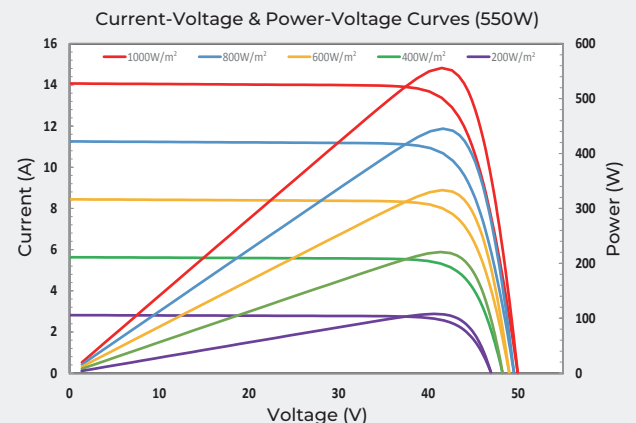
Parameter	416.0	412.2	408.5	404.6	400.8
Maximum Power at NMOT (Pmax/W)	416.0	412.2	408.5	404.6	400.8
Rated Voltage @ MPP (Vmp/V)	39.79	39.64	39.49	39.33	39.18
Rated Current @ MPP (Imp/A)	10.46	10.40	10.34	10.29	10.23
Open Circuit Voltage (Voc/V)	47.32	47.18	47.04	46.89	46.75
Short Circuit Current (Isc/A)	11.30	11.24	11.18	11.13	11.07

## Temperature Characteristics

Nominal Module Operating Temperature	42 ± 2 °C
Nominal Cell Operating Temperature	45 ± 2 °C
Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.048%/°C

## Warranty

Product Workmanship Warranty	12 Years
Linear Power Output Warranty	30 Years
First Year Degradation	2%
Annual Power Degradation	0.45%



AA-550US-6x24GW-Ver2.2 (February 2025)