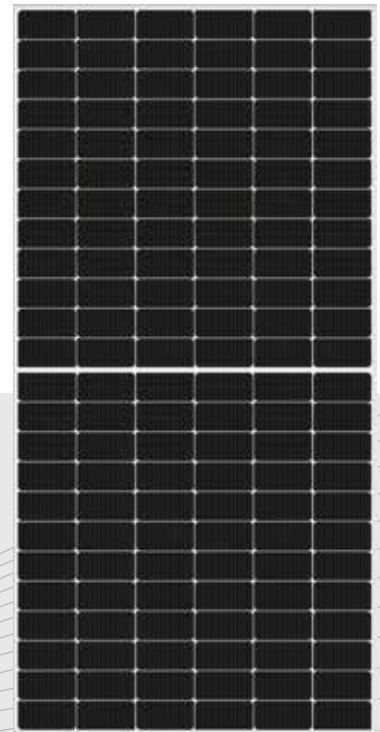




HUASUN

Bright Your Sustainable Future

HS-B144DS SERIES



460W | 465W | 470W | 475W | 480W

144-cell | Bifacial HJT Mono Half Cell PV-Module Series

WARRANTY

15
years

Product
Warranty

30
years

Linear Power
Warranty

CERTIFICATES



JP-AC



QUALITY BENEFITS

22.1
%

Extreme Power Production

The module efficiency up to 22.1% achieved by utilizing the most advanced technology in the solar industry.



SuperMBB Half-Cut Cell Technology

Using the advanced 9BB solar cell combines with half-cut cell technology to guarantee more power.



Advanced Bifacial Efficiency

Bifaciality >80%, effectively improves backside power generation.

A bifacial cell design that generates energy from both sides, capturing and converting more sunlight into power even with a backsheet.



Weak light

High Energy Yield

Excellent weak light performance and better performance in hot climate. Leading temperature coefficient for more production when the sun shines strongest, Or under the cloudy, haze condition.

5,400
2,400
Pascal

Guaranteed Better Durability

Certified for snow and wind loads of a maximum of 5,400 / 2,400 Pascals and with better protection against harsh weather to improve cell life for long-lasting high power.

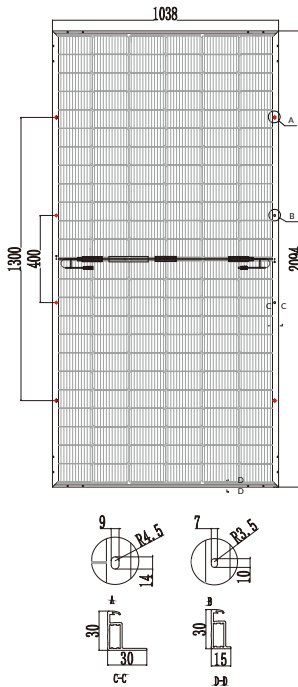


Industry Leading Output Warranty

Huasun solar cell technology result in extremely low LID and PID which supports reliability and longevity. 12% power degradation in 30 years.

The Specification and key features described in this datasheet may deviate slightly and are not guaranteed. Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Engineering Drawings



Temperature Characteristics

Nominal Operating Cell Temp. (NOCT)	44 C (±2 C)
Temperature Coefficient of Pmax	-0.26 %/C
Temperature Coefficient of Voc	-0.24 %/C
Temperature Coefficient of Isc	0.04 %/C

Shipping Configurations

	HC	GP
Container Length	40'	20'
Pallets Per Container	22	5
Modules Per Pallet	35pcs	35pcs
Modules Per Container	770pcs	175pcs

Certifications & Warranty

Safety	Class II
Fire Rating	Class A
Product Warranty	15 Yrs Workmanship
Performance Warranty of Pmax	30 Yrs Power Output (Linear)*

* 1st year 99%, after 2nd year 0.37% annual degradation to year 30.

Electrical Characteristics (STC*)

Model Number	HS-B144 DS460	HS-B144 DS465	HS-B144 DS470	HS-B144 DS475	HS-B144 DS480
Maximum Power (Pmax)	460W	465W	470W	475W	480W
Max Module Efficiency(%)	21.2%	21.4%	21.6%	21.9%	22.1%
Voltage at Max Power (Vmp)	45.24V	45.44V	45.66V	45.86V	46.08V
Current at Max Power (Imp)	10.18A	10.24A	10.30A	10.36A	10.43A
Open Circuit Voltage (Voc)	53.22V	53.35V	53.48V	53.61V	53.74V
Short Circuit Voltage (Isc)	10.58A	10.64A	10.70A	10.76A	10.82A
Operating Module Temperature	-40 to +85 C				
Maximum System Voltage	DC1500V (IEC)				
Maximum Series Fuse	20A				
Rating Power Sorting	0~+5W				
Bifaciality (%)	80±5				

BSTC**

	510W	515W	520W	525W	530W
Max. Power at BSTC (Pmax)	510W	515W	520W	525W	530W
Voltage Max. Power (Vmp)	46.20V	46.40V	46.60V	46.80V	47.00V
Current Max Power (Imp)	11.14A	11.19A	11.24A	11.29A	11.34A
Open Circuit Voltage (Voc)*	54.33V	54.73V	55.33V	55.93V	56.53V
Short Circuit Voltage (Isc)*	11.53A	11.57A	11.61A	11.65A	11.69A

*STC: Irradiance 1000 W/m², module temperature 25 C, AM=1.5; Best in Class AAA solar simulator used, power measurement uncertainty is within +/- 3%.

**BSTC : Front side irradiation 1000W/m², back side reflection irradiation 135W/m², spectrum AM1.5, ambient temperature 25 C. Values are based on RETC certified results from a light-soaked module.

Mechanical Characteristics

Laminate Structure	Glass/ POE/ Cells/ POE/Glass
Cell Type	HJT Mono 166 x 83 mm
Cell Connection	144 (72x2)
Module Dimensions	2094 x 1038 x30 mm
Weight	27.5 kg
Junction Box	Degree of protection IP67/IP68
Output Cable	4mm ² , 200mm in length, length can be customized
Connectors Type	UV Resistant Cable/Compatible MC4
Frame	Anodised Aluminum Alloy
Encapsulant	POE
Front Load*	5400 Pa
Real Load*	2400 Pa
Glass Thickness	(F) 2.0mm Anti-reflective surface Solar glass (B) 2.0mm Solar glass

* Mechanical load test report per Solar PTL (IEC 61730)