

# **HS-B144DS SERIES**

460W |465W |470W | 475W | 480W 144-cell | Bifacial HJT Mono Half Cell PV-Module Series



15 years

Product Warranty 30 years Linear Power

Warranty

#### **CERTIFICATES**









# **QUALITY BENEFITS**

22.08

#### **Extreme Power Production**

The module efficiency up to 22.08% achieved by utilizing the most advanced technology in the solar industry.



#### SuperMBB Half-Cut Cell Technology

Using the advanced 12BB solar cell conbines 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.



#### 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

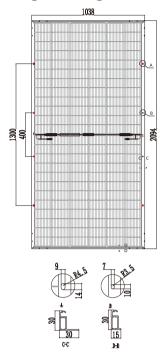
Huasun solar cell technology result in extremely low LID and PID which supports reliability and longevity. 12% power degradation in 30 years.

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 govern- ing all transactions related to the purchase and sale of the products described herein.



# HUASUN Bright Your Sustainable Future

# **Engineering Drawings**



# **Temperature Characteristics**

Nominal Operating Cell Temp. (NOCT)	44°C (±2°C)
Temperature Coefficient of Pmax	-0.26 %/℃
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	10
Modules Per Pallet	35pcs	35pcs
Modules Per Container	770pcs	350pcs

# **Certifications & Warranty**

Safety	IEC61215, IEC61730		
Fire Rating	Class A		
Product Warranty	15 Yrs Workmanship		
Performance Warranty of Pmax	30 Yrs Power Output (Lin		

<sup>\* 1</sup>st 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(%)	21.16%	21.39%	21.62%	21.85%	22.08%
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	25A				
Rating Power Sorting	0~+5W				
Bifaciality (%)			80 (0~+5)		

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

NOCT	460W	465W	470W	475W	480W
Max. Power at NOCT (Pmax)	344W	347W	351W	355W	358W
Voltage Max. Power (Vmp)	41.70V	41.90V	42.11V	42.35V	42.51V
Current Max Power (Imp)	8.24A	8.29A	8.34A	8.38A	8.43A
Open Circuit Voltage (Voc)*	49.52V	49.64V	49.77V	50.09V	50.21V
Short Circuit Voltage (Isc)*	8.49A	8.53A	8.54A	8.55A	8.60A

\*NOCT: 800W/m² Iddadiance, 20°C ambient temperature, AM=1.5, wind speed 1m/s, 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
Output Cable	4mm², 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

<sup>\*</sup> Mechanical load test report per Solar PTL (IEC 61730)

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