

# ALLSUN

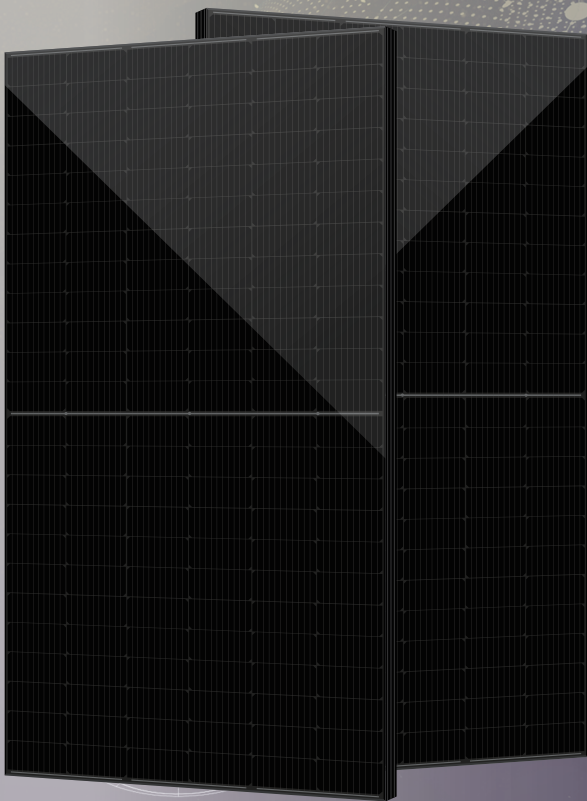
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# ASM 144HC

High Performance Mono Perc Module

# 440-465<sub>w</sub>

**ALL  
BLACK**



## Elegant appearance with All black design



### Multi Busbar Technology

Better light trapping and current collection to improve module power output and reliability.



### Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



### Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



### Enhanced Mechanical Load

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



ALLSUN POWER CO., LTD

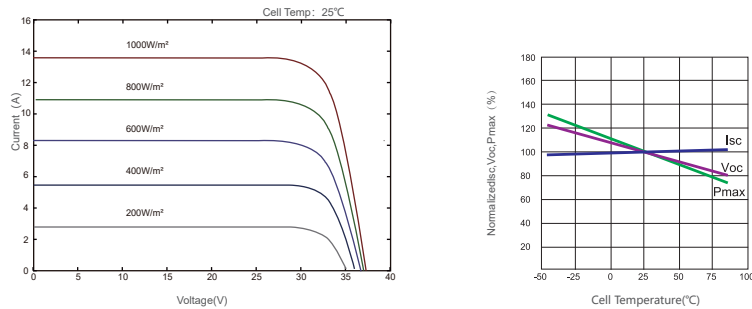
E-mail: [INFO@ALLSUNTECH.COM](mailto:INFO@ALLSUNTECH.COM)

## Electrical characteristics

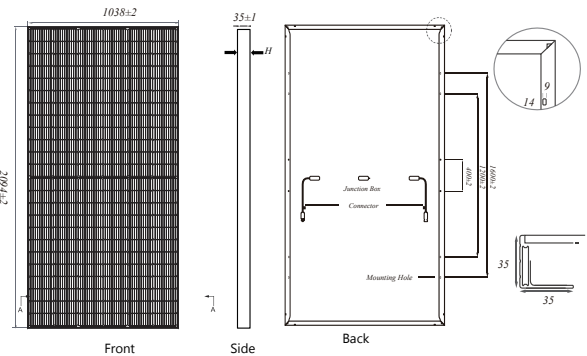
Module Type	440W		445W		450W		455W		460W		465W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	440W	333W	445W	336W	450W	340W	455W	344W	460W	348W	465W	352W
Short Circuit Current(Isc)	11.28A	9.16A	11.32A	9.20A	11.36A	9.25A	11.41A	9.29A	11.45A	9.33A	11.49A	9.38A
Open Circuit Voltage(Voc)	49.40V	46.40V	49.56V	46.55V	49.70V	46.90V	49.85V	47.15V	50.11V	47.38V	50.15V	47.61V
Maximum Power Current(Imp)	10.76	8.60A	10.80A	8.64A	10.84A	8.68A	10.88A	8.72A	10.92A	8.76A	10.96A	8.81A
Maximum Power Voltage(Vmpp)	40.90	38.70V	41.21V	38.95V	41.52V	39.19V	41.82V	39.44V	42.13	39.68V	42.43V	39.90V
Module Efficiency	20.13%		20.36%		20.58%		20.81%		21.04%		21.27%	
Power Tolerance	0~+5W		0~+5W		0~+5W		0~+5W		0~+5W		0~+5W	
Maximum System Voltage	VDC 1500V											
Maximum Series Fuse	20A											
Increased Snowload Acc.to Iec 61215	5400Pa											
Operating Temperature	-40~+85°C											
Number Of Bypass Diodes	3											
Norminal Operating Cell Temperature(Noct)	45°C±2°C											
Temperature Coefficient Of Pmax	-0.350%/°C											
Temperature Coefficient Of Voc	-0.272%/°C											
Temperature Coefficient Of Isc	0.044%/°C											

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5. NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, wind speed 1m/s.

## I-V Curve



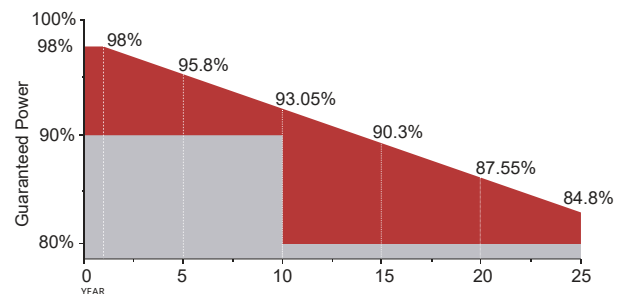
## Design



## The structural characteristics

Cell Type	Mono 166x83mm
Number Of Cells	144 (6x24)
Dimensions(AxBxC)	2094x1038x35mm
Weights	23.0kg
Glass	3.2mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP68, three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm <sup>2</sup> , +300mm, -300mm Customized Length

## Linear Performance Warranty



12-year product warranty



30-year linear power output warranty