

# Mars Series

540W/545W/550W

## SUN 72MD-H8S

**HALF-CELL BIFACIAL MBB MONO  
PERC DOUBLE GLASS MODULE  
182MM CELLS**



### COMPREHENSIVE CERTIFICATES

IEC61215 / IEC61730 / IEC61701 / IEC62716 / IEC62804  
ISO 9001: 2015 Quality management systems;  
ISO 14001: 2015 Environmental management systems;  
OHSAS 18001: 2007 Occupational health and safety management systems;

### Sunergy Advantages



#### Power attenuation rate surpass than industry standards

As the CTC randomization test, our attenuation rate is 1.81%, 0.31% and 0.34% in the 1st, 2nd and 3rd year, which is much less than the national standard value of 2% and 0.45%



#### Overflow tank can be waterproof

The excess silicone will flow into the overflow tank, can reduce 3% water vapor entering the panels.



#### Stronger frame

The C side of the frame contains curved hook reinforcement, enhanced the mechanical load strength by 10%



#### Current grading

Current classification effectively avoids 2% power loss caused by current mismatch during installation, achieving max output power



#### IP68 junction box

IP68 junction box offer perfect waterproof performance

### SUNERGY USA WORKS LLC

Founded in 2008, Sunergy is a manufacturer of high-performance photovoltaic products. With 12 manufacturing bases and more than 20 branches around the world, the company's business covers modules, photovoltaic power stations and EPC. Sunergy products are available in over 120 countries and regions and are used extensively in ground-mounted power plants, commercial & industrial rooftop PV systems and residential rooftop PV systems.

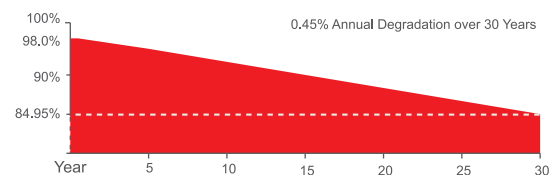
### QUALIFICATIONS AND CERTIFICATES



SUNERGY

### LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 93% Power Output
- 30 Years 84.95% Power Output

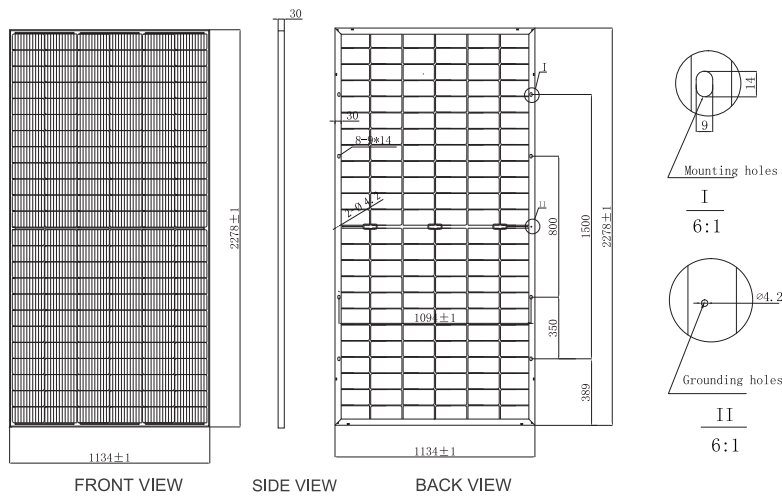


SUNERGY USA WORKS LLC  
[www.sunergyworks.com](http://www.sunergyworks.com)

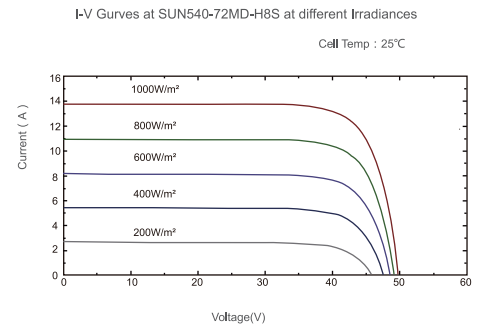


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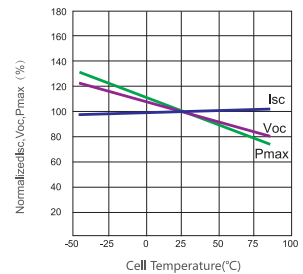
## MECHANICAL DRAWINGS



## I-V CURVES



Power voltage current curve at different temperature



## MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 182x91mm
Number Of Cells	144 (6x24)
Dimensions(AxBxC)	2278x1134x30mm
Weights	33.0kg
Glass	2.0/2.0mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP68 ,three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm²,+300mm,-300mm Customized Length

## PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	36
Pallets Per Container	20
Pieces Per Container	720

## ELECTRICAL CHARACTERISTICS

Module Type	540W		545W		550W	
	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	540W	406.8W	545W	410.5W	550W	414.3W
Short Circuit Current(Isc)	13.70A	11.07A	13.76A	11.12A	13.82A	11.17A
Open Circuit Voltage(Voc)	49.8V	46.5V	50.0V	46.7V	50.2V	46.9V
Maximum Power Current(Imp)	12.86A	10.49A	12.92A	10.54A	12.98A	10.58A
Maximum Power Voltage(Vmpp)	42.0V	38.8V	42.2V	39.0V	42.4V	39.1V
Module Efficiency	20.90%		21.10%		21.29%	
Power Tolerance	0~+5W		0~+5W		0~+5W	

## ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 540W Front)

Backside Power Gain	5%	10%	15%	20%	25%
Maximum Power At STC(Pmax)	567	594	621	648	675
Short Circuit Current(Isc)	14.38	15.06	15.75	16.39	17.08
Open Circuit Voltage(Voc)	50.2	50.2	50.2	50.4	50.4
Maximum Power Current(Imp)	13.50	14.14	14.79	15.39	16.03
Maximum Power Voltage(Vmpp)	42.0	42.0	42.0	42.1	42.1

STC: 1000W/m2 irradiance, 25°C cell temperature, AM1.5. NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, wind speed 1m/s.

