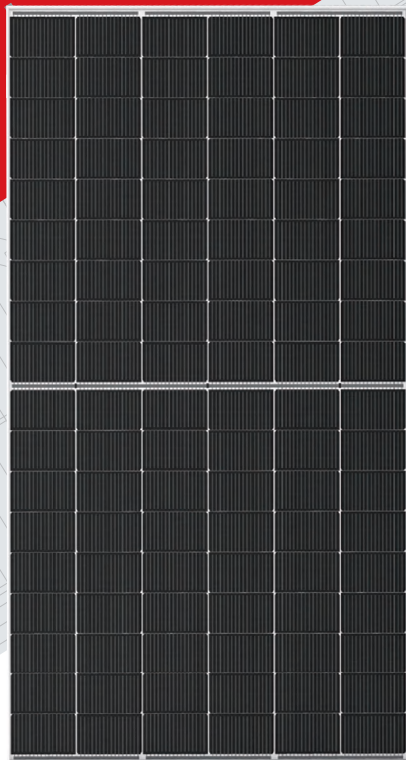


Mars Series

495W/500W/505W/510W/515W

SUN 54MD-H12RS

N TYPE TOPCON BIFACIAL MODULE



COMPREHENSIVE CERTIFICATES

IEC61215 / IEC61730 / IEC61701 / IEC62716 / IEC62804
ISO 9001: 2015 Quality management systems;
ISO 14001: 2015 Environmental management systems;
ISO 45001: 2018 Occupational health and safety management systems;

Sunergy Advantages



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



Higher utilization of container space

Higher container space utilization significantly reduce transportation costs



Better Temperature Coefficient

-0.30%/°C Pmax temperature coefficient
More stable power generation performance and even better in hot climate



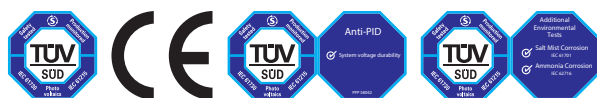
Higher fire rating

Fire rating up to Class A, reduce fire hazards;

SUNERGY USA WORKS LLC

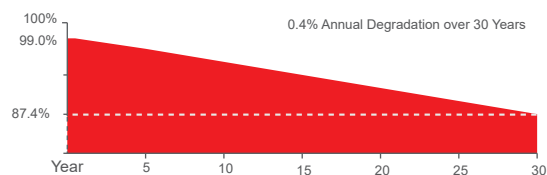
Founded in 2008, Sunergy is a manufacturer of high-performance photovoltaic products. With 12 manufacturing bases and more than 20 branches around the world, the company's business covers modules, photovoltaic power stations and EPC. Sunergy products are available in over 120 countries and regions and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

QUALIFICATIONS AND CERTIFICATES



LINEAR PERFORMANCE WARRANTY

- 15 Years Manufacturing Warranty
- 12 Years 94.6% Power Output
- 30 Years 87.4% Power Output

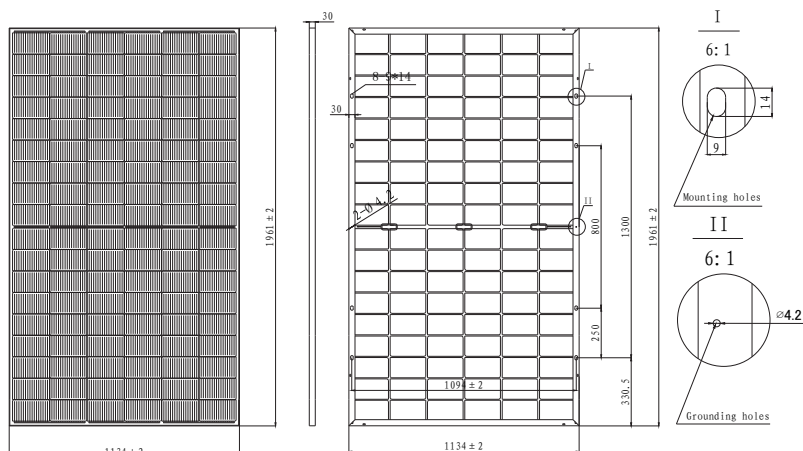


SUNERGY USA WORKS LLC
www.sunergyworks.com



Mars Series SUN 54MD-H12RS

MECHANICAL DRAWINGS

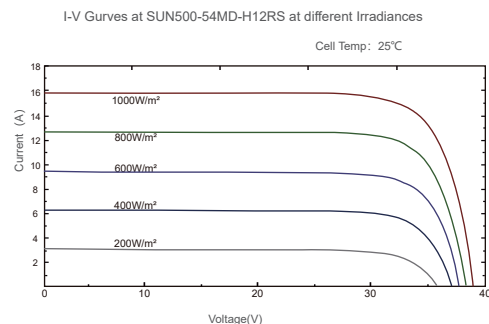


FRONT VIEW SIDE VIEW BACK VIEW

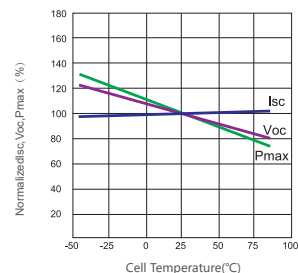
MECHANICAL SPECIFICATION

Cell Type	N-Type Mono Crystalline 182x105mm
Number Of Cells	108 (6x18)
Dimensions(AxBxC)	1961x1134x30mm
Weights	27.2kg
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	4.0mm ² , +300mm, -300mm Customized Length

I-V CURVES



Power voltage current curve at different temperature



PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	36
Pallets Per Container	24
Pieces Per Container	864

ELECTRICAL CHARACTERISTICS

Module Type	495W		500W		505W		510W		515W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	495W	376.9W	500W	380.7W	505W	384.5W	510W	388.3W	515W	392.1W
Short Circuit Current(Isc)	15.86A	12.85A	15.93A	12.91A	16.01A	12.97A	16.08A	13.03A	16.15A	13.09A
Open Circuit Voltage(Voc)	39.44V	38.22V	39.64V	38.41V	39.84V	38.60V	40.04V	38.80V	40.24V	38.99V
Maximum Power Current(Imp)	14.96A	12.15A	15.03A	12.20A	15.10A	12.26A	15.17A	12.31A	15.24A	12.37A
Maximum Power Voltage(Vmpp)	33.09V	31.03V	33.27V	31.21V	33.45V	31.36V	33.62V	31.53V	33.80V	31.70V
Module Efficiency	22.3%		22.5%		22.7%		22.9%		23.2%	
Power Tolerance	0~+5W		0~+5W		0~+5W		0~+5W		0~+5W	

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 500W Front)

Backside Power Gain	10%	15%	20%	25%
Maximum Power At STC(Pmax)	550	575	600	625
Short Circuit Current(Isc)	17.47	18.20	18.92	19.64
Open Circuit Voltage(Voc)	39.66	39.81	39.96	40.11
Maximum Power Current(Imp)	16.48	17.17	17.85	18.53
Maximum Power Voltage(Vmpp)	33.37	33.49	33.61	33.73

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

