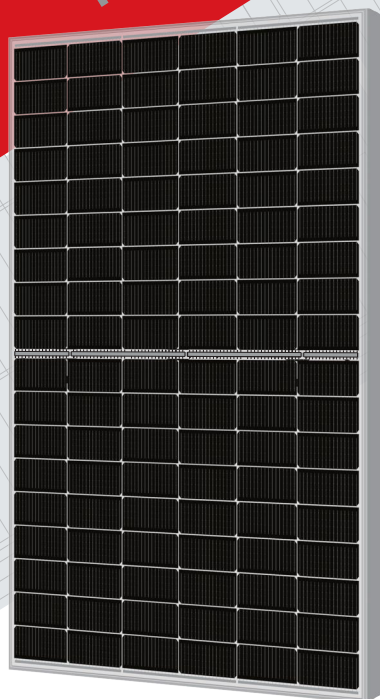


Mars Series

430W/435W/440W/445W/450W

SUN 54MD-H8NS

HALF-CELL BIFACIAL SMBB MONO
N-Type TOPCon DOUBLE GLASS 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



IP68 junction box

IP68 junction box offer perfect waterproof performance



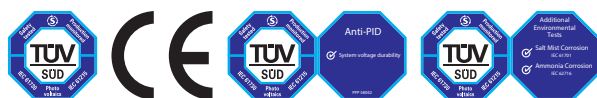
Higher fire rating

Fire rating up to Class A, reduce fire hazards;

SUNERGY USA WORKS LLC

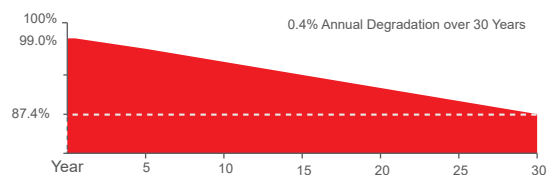
Founded in 2008, Sunergy is a manufacturer of high-performance photovoltaic products. With 12 manufacturing bases and more than 20 branches around the world, the company's business covers modules, photovoltaic power stations and EPC. Sunergy products are available in over 120 countries and regions and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

QUALIFICATIONS AND CERTIFICATES



LINEAR PERFORMANCE WARRANTY

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

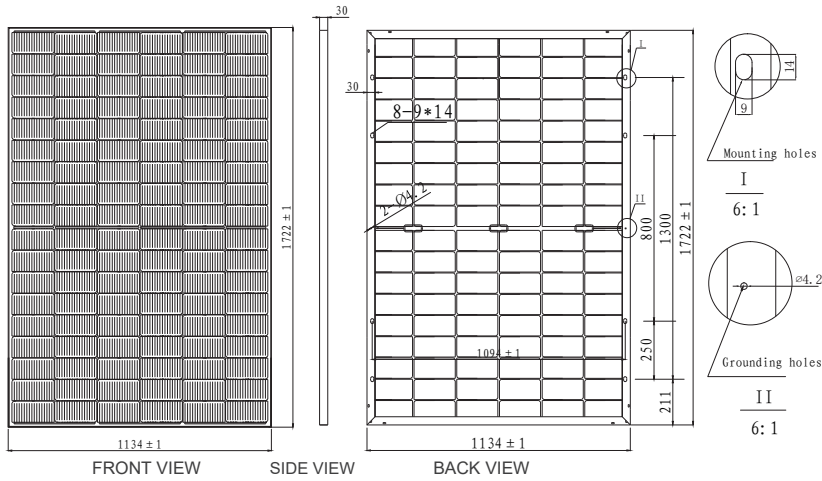


SUNERGY USA WORKS LLC
www.sunergyworks.com

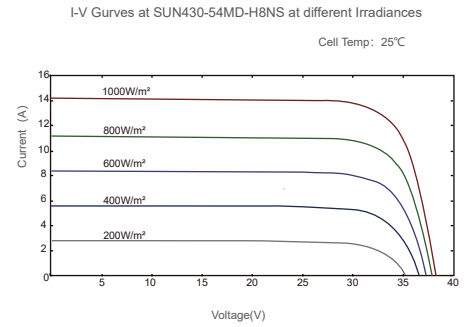


Mars Series SUN 54MD-H8NS

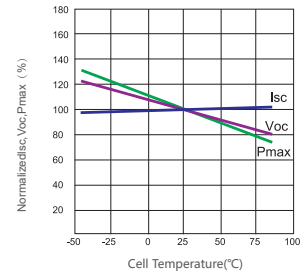
MECHANICAL DRAWINGS



I-V CURVES



Power voltage current curve at different temperature



MECHANICAL SPECIFICATION

Cell Type	N-Type Mono Crystalline 182x91mm
Number Of Cells	108 (6x18)
Dimensions(AxBxC)	1722x1134x30mm
Weights	24.0kg
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	26
Pieces Per Container	936

ELECTRICAL CHARACTERISTICS

Module Type	430W		435W		440W		445W		450W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	430W	324.6W	435W	328.3W	440W	332.1W	445W	335.9W	450W	339.7W
Short Circuit Current(Isc)	14.21A	11.54A	14.32A	11.63A	14.41A	11.70A	14.54A	11.81A	14.63A	11.88A
Open Circuit Voltage(Voc)	38.56V	36.52V	38.71V	36.66V	38.86V	36.81V	39.01V	36.95V	39.16V	37.09V
Maximum Power Current(Imp)	13.44A	10.91A	13.54A	10.99A	13.63A	11.06A	13.76A	11.16A	13.85A	11.23A
Maximum Power Voltage(Vmpp)	31.99V	29.75V	32.14V	29.87V	32.29V	30.02V	32.34V	30.09V	32.50V	30.24V
Module Efficiency	22.00%		22.3%		22.5%		22.8%		23.0%	
Power Tolerance	0~+5W		0~+5W		0~+5W		0~+5W		0~+5W	

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 440W Front)

Backside Power Gain	10%	15%	20%	25%
Maximum Power At STC(Pmax)	484	506	528	550
Short Circuit Current(Isc)	15.85	16.55	17.26	17.96
Open Circuit Voltage(Voc)	38.96	39.14	39.32	39.50
Maximum Power Current(Imp)	14.98	15.65	16.31	16.98
Maximum Power Voltage(Vmpp)	32.31	32.34	32.37	32.4

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

