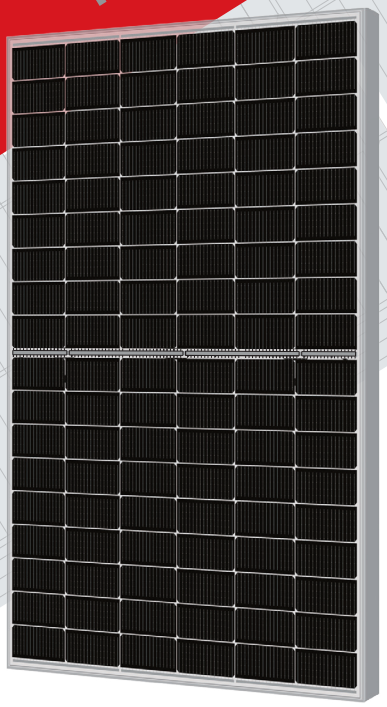
Mars Series

420W/425W/430W/435W

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;
OHSAS 18001: 2007 Occupational health and safety management systems;

KEY SALIENT FEATURES

- **High output power**
- **Better power generation under shadows**
- **Strong anti-hot spot ability**
- **Enhanced safety**
- **Easy to install**
- **High tolerance for harsh environment and extreme weather conditions**

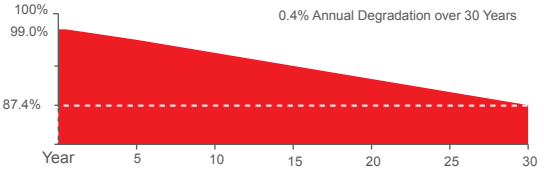
SUNERGY USA WORKS LLC

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



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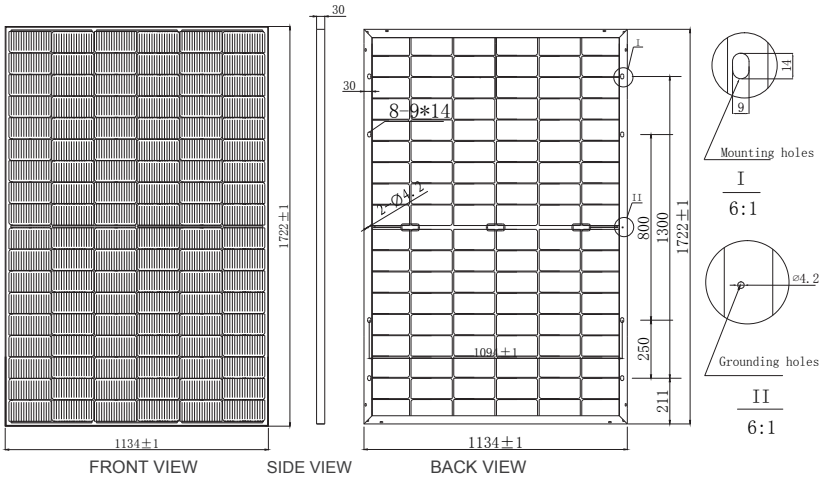
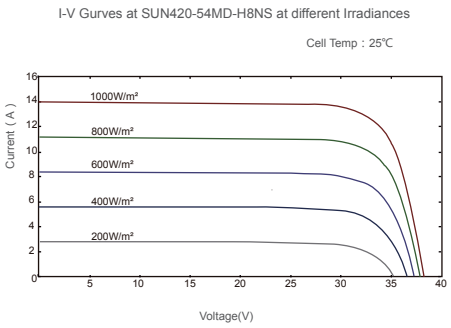
www.sunergyworks.com

Mars Series SUN 54MD-H8NS

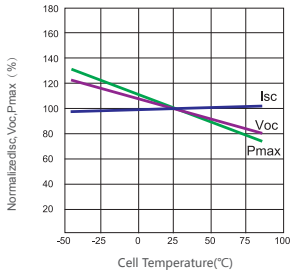
MECHANICAL DRAWINGS



I-V CURVES



Power voltage current curve at different temperature



MECHANICAL SPECIFICATION

Cell Type	N-Type Mono Crystalline 182x91mm
Number Of Cells	144（6x24）
Dimensions(AxBxC)	1722x1134x30mm
Weights	25.5kg
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	420W		425W		430W		435W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	420W	317.0W	425W	320.8W	430W	324.6W	435W	328.3W
Short Circuit Current(Isc)	14.02A	11.39A	14.12A	11.47A	14.21A	11.54A	14.32A	11.63A
Open Circuit Voltage(Voc)	38.26V	36.24V	38.41V	36.38V	38.56V	36.52V	38.71V	36.66V
Maximum Power Current(Impp)	13.26A	10.76A	13.35A	10.84A	13.44A	10.91A	13.54A	10.99A
Maximum Power Voltage(Vmpp)	31.69V	29.45V	31.84V	29.59V	31.99V	29.75V	32.14V	29.87V
Module Efficiency	21.5%		21.8%		22.00%		22.3%	
Power Tolerance	0~+5W		0~+5W		0~+5W		0~+5W	

Maximum System Voltage	VDC 1500V
Maximum Series Fuse	30A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85℃
Number Of Bypass Diodes	3
Norminal Operating Cell Temperature(Noct)	45℃±2℃
Temperature Coefficient Of Pmax	-0.30%℃
Temperature Coefficient Of Voc	-0.25%℃
Temperature Coefficient Of Isc	0.046%℃

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 420W Front)

Backside Power Gain	10%	15%	20%	25%	30%
Maximum Power At STC(Pmax)	462.0	483.0	504.0	525.0	546.0
Short Circuit Current(Isc)	15.36	16.04	16.72	17.40	18.08
Open Circuit Voltage(Voc)	38.46	38.66	38.86	39.06	39.26
Maximum Power Current(Impp)	14.49	15.13	15.77	16.42	17.06
Maximum Power Voltage(Vmpp)	31.89	31.92	31.95	31.98	32.01

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

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