

Mars Series

445W/450W/455W/460W

SUN 72MD-H6S



HALF-CELL BIFACIAL MBB MONO PERC 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

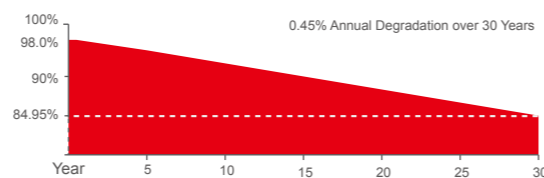
Founded in 2008, Sunergy is a manufacturer of high-performance photovoltaic products. With 12 manufacturing bases and more than 20 branches around the world, the company's business covers modules, photovoltaic power stations and EPC. Sunergy products are available in over 120 countries and regions and 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 93% Power Output
- 30 Years 84.95% Power Output

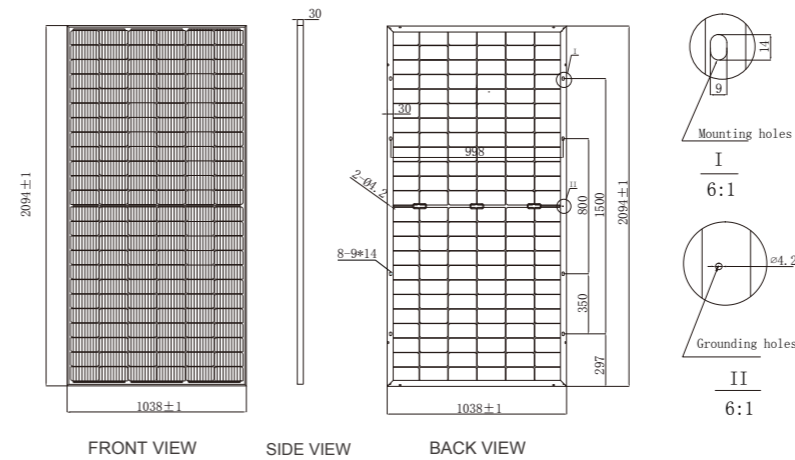


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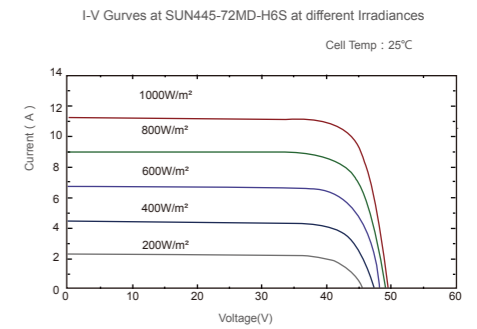


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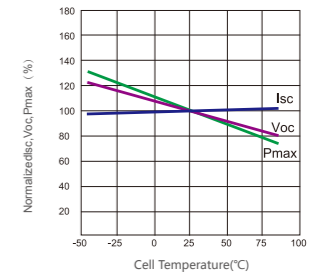
MECHANICAL DRAWINGS



I-V CURVES



Power voltage current curve at different temperature



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 166x83mm
Number Of Cells	144 (6x24)
Dimensions(AxBxC)	2094x1038x30mm
Weights	28.5kg
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	20
Pieces Per Container	720

ELECTRICAL CHARACTERISTICS

Module Type	445W		450W		455W		460W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	445W	334.5W	450W	338.3W	455W	342.0W	460W	345.8W
Short Circuit Current(Isc)	11.29A	9.12A	11.36A	9.18A	11.43A	9.24A	11.50A	9.29A
Open Circuit Voltage(Voc)	49.7V	46.3V	50.0V	46.6V	50.3V	46.9V	50.6V	47.2V
Maximum Power Current(Imp)	10.80A	8.65A	10.87A	8.70A	10.94A	8.75A	11.01A	8.81A
Maximum Power Voltage(Vmpp)	41.2V	38.7V	41.4V	38.9V	41.6V	39.1V	41.8V	39.3V
Module Efficiency	20.47%		20.70%		20.93%		21.16%	
Power Tolerance	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	-0.36%/°C							
Temperature Coefficient Of Voc	-0.29%/°C							
Temperature Coefficient Of Isc	0.05%/°C							

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 450W Front)

Backside Power Gain	5%	10%	15%	20%	25%
Maximum Power At STC(Pmax)	473	495	518	540	563
Short Circuit Current(Isc)	11.93	12.49	13.06	13.60	14.16
Open Circuit Voltage(Voc)	50.0	50.0	50.0	50.1	50.1
Maximum Power Current(Imp)	11.41	11.96	12.50	13.01	13.55
Maximum Power Voltage(Vmpp)	41.4	41.4	41.4	41.5	41.5

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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