A 1 S Series 460W/465W/470W/475W/ 480W/485W

SUN 60M-H8N

N-Type TOPCon HALF-CELL MC **PV MODULE**



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

















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



Strong mechanical load capacity



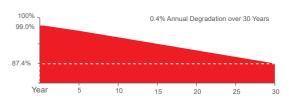
Super strong frame



1500V system voltage

LINEAR PERFORMANCE WARRANTY

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

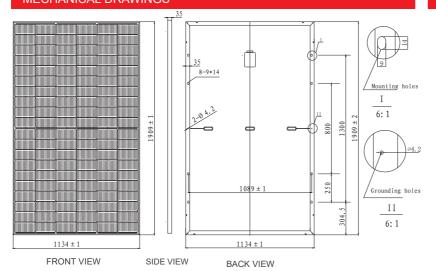








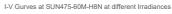
MECHANICAL DRAWINGS

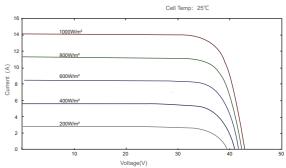


MECHANICAL SPECIFICATION

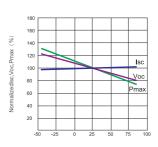
Cell Type	N-Type Mono Crystalline 182x91mm
Number Of Cells	120 (6x20)
Dimensions(AxBxC)	1909x1134x35mm
Weights	24.5kg
Glass	3.2mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP68 ,three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm²,+300mm,-300mm Customized Length

I-V CURVES





Power voltage current curve at different temperature



Cell Temperature(°C)

PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	31
Pallets Per Container	24
Pieces Per Container	744

ELECTRICAL CHARACTERISTICS

Module Type	460W	465W	470W	475W	480W	485W
	STC NOCT					
Maximum Power At STC(Pmax)	460W 347.2W	465W 351.0W	470W 354.8W	475W 358.5W	480W 362.3W	485W 366.1W
Short Circuit Current(Isc)	13.89A 11.28A	13.98A 11.36A	14.09A 11.44A	14.16A 11.50A	14.26A 11.58A	14.34A 11.65A
Open Circuit Voltage(Voc)	42.34V 40.10V	42.49V 40.24V	42.64V 40.39V	42.79V 40.53V	42.94V 40.67V	43.09V 40.81V
Maximum Power Current(Impp)	13.14A 10.66A	13.22A 10.73A	13.31A 10.82A	13.39A 10.87A	13.48A 10.95A	13.56A 11.01A
Maximum Power Voltage(Vmpp)	35.03V 32.56V	35.18V 32.70V	35.33V 32.80V	35.48V 32.98V	35.63V 33.10V	35.78V 33.25V
Module Efficiency	21.2%	21.5%	21.7%	21.9%	22.2%	22.4%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W
Maximum System Voltage				VDC 1500V		
Maximum Series Fuse 25A						
Increased Snowload Acc.to lec 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				-0.30%℃		
Temperature Coefficient Of Voc		-0.25%℃				
Temperature Coefficient Of Isc				0.046%℃		

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



