# at S Series

55W/660W/665W/670W

# 66MD-H12S

HALF-CELL BIFACIAL MBB MONO
PERC DOUBLE GLASS MODULE 210MM CELLS



BACK VIEW

FRONT VIEW

#### 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**



















# **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;

## **Sunergy Advantages**



#### Power attenuation rate surpass than industry standards

As the CTC randomization test, our attenuation rate is 1.81%, 0.31% and 0.34% in the 1st,2nd and 3rd year, which is much less than the national standard value of 2% and 0.45%



#### 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

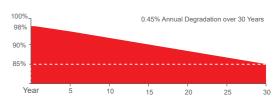


#### IP68 iunction box

IP68 junction box offer perfect waterproof performance

#### LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 93% Power Output
- 30 Years 85% Power Output

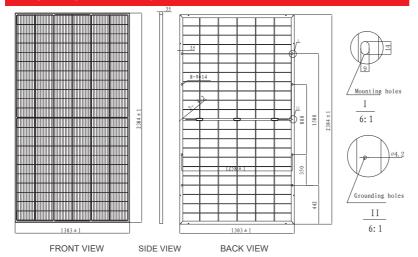


SUNERGY USA WORKS LLC www.sunergyworks.com





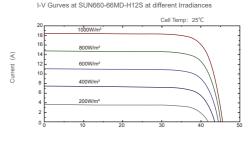
# MECHANICAL DRAWINGS



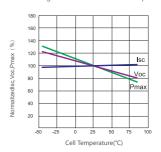
#### **MECHANICAL SPECIFICATION**

Cell Type	Mono Crystalline 210x105mm
Number Of Cells	132 (6x22)
Dimensions(AxBxC)	2384x1303x35mm
Weights	39.5kg
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

#### I-V CURVES



Power voltage current curve at different temperature



#### PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	31
Pallets Per Container	17
Pieces Per Container	527

#### **ELECTRICAL CHARACTERISTICS**

Module Type	650W	655W	660W	665W	670W
	STC NOCT				
Maximum Power At STC(Pmax)	650W 492.7W	655W 496.5W	660W 500.2W	665W 504.0W	670W 507.8W
Short Circuit Current(Isc)	18.35A 14.83A	18.39A 14.86A	18.44A 14.90A	18.48A 14.93A	18.51A 14.96A
Open Circuit Voltage(Voc)	45.2V 42.3V	45.4V 42.5V	45.6V 42.7V	45.8V 42.9V	46.0V 43.1V
Maximum Power Current(Impp)	17.34A 14.05A	17.38A 14.08A	17.42A 14.12A	17.46A 14.15A	17.50A 14.18A
Maximum Power Voltage(Vmpp)	37.5V 35.1V	37.7V 35.2V	37.9V 35.4V	38.1V 35.6V	38.3V 35.8V
Module Efficiency	20.92%	21.09%	21.25%	21.41%	21.57%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W
Maximum System Voltage	VDC 1500V	,			

Maximum System Voltage	VDC 1500V
Maximum Series Fuse	35A
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	-0.34%℃
Temperature Coefficient Of Voc	-0.26%℃
Temperature Coefficient Of Isc	0.04%℃

### ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN

(Reference to 660W Front)

Backside Power Gain	5%	10%	15%	20%	25%
Maximum Power At STC(Pmax)	693	726	759	792	825
Short Circuit Current(Isc)	19.32	20.24	21.05	21.96	22.88
Open Circuit Voltage(Voc)	45.6	45.6	45.8	45.8	45.8
Maximum Power Current(Impp)	18.19	19.06	19.82	20.68	21.54
Maximum Power Voltage(Vmpp)	38.1	38.1	38.3	38.3	38.3

 $STC: 1000W/m2 \ irradiance, 25^{\circ}C \ cell \ temperature, AM1.5. \quad NOCT: Irradiance \ at \ 800W/m^2 \ , Ambient \ Temperature \ 20^{\circ}C \ \ , \ wind \ speed \ 1m/s \ .$ 



