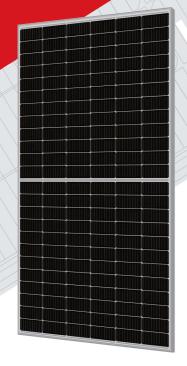
# **Marsseries** 540W/545W/550W/555W/560W **SUN 72M-H8**

MBB HALF-CELL MONO PV MODUL 182MM CELLS



### 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 0.55%



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%



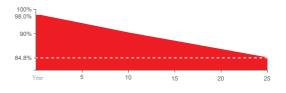
Current grading Current classification effectively avoids 2% power loss caused by current mismatch during installation, achieving max output power



IP68 junction box IP68 junction box offer perfect waterproof performance

### LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 92.0% Power Output
- 25 Years 84.8% Power Output

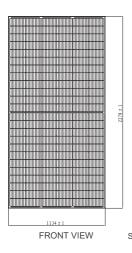


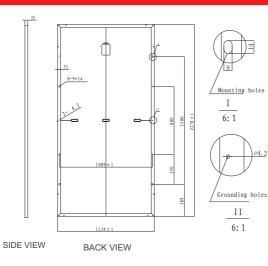
SUNERGY USA WORKS LLC www.sunergyworks.com



# Mars Series SUN 72M-H8

### MECHANICAL DRAWINGS



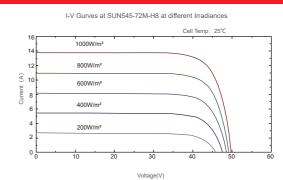


### MECHANICAL SPECIFICATION

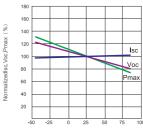
| Cell Туре         | Mono Crystalline 182x91mm                           |
|-------------------|---|
| Number Of Cells   | 144 (6x24)  |
| Dimensions(AxBxC) | 2278x1134x35mm                                      |
| Weights           | 29.0kg  |
| Glass             | 3.2mm Tempered Low Iron Glass                       |
| Aluminium Frame   | Anodised Aluminium                                  |
| Junction Box      | Split Junction Box (IP68 ,three diode)              |
| Connector         | Mc4 Compatible                                      |
| Output Cables     | 4.0mm <sup>2</sup> ,+300mm,-300mm Customized Length |
|                   |   |

### ELECTRICAL CHARACTERISTICS

#### 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 | 20     |
| Pieces Per Container  | 620    |

| Module Type                         | 540W          | 545W          | 550W          | 555W          | 560W          |  |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|--|
|                                     | STC NOCT      |  |
| Maximum Power At STC(Pmax)          | 540W 406.8W   | 545W 410.5W   | 550W 414.3W   | 555W 418.1W   | 560W 421.8W   |  |
| Short Circuit Current(Isc)          | 13.70A 11.07A | 13.76A 11.12A | 13.82A 11.17A | 13.88A 11.22A | 13.94A 11.26A |  |
| Open Circuit Voltage(Voc)           | 49.8V 46.5V   | 50.0V 46.7V   | 50.2V 46.9V   | 50.5V 47.2V   | 50.7V 47.4V   |  |
| Maximum Power Current(Impp)         | 12.86A 10.49A | 12.92A 10.54A | 12.98A 10.58A | 13.03A 10.63A | 13.09A 10.68A |  |
| Maximum Power Voltage(Vmpp)         | 42.0V 38.8V   | 42.2V 39.0V   | 42.4V 39.1V   | 42.6V 39.3V   | 42.8V 39.5V   |  |
| Module Efficiency                   | 20.90%        | 21.10%        | 21.29%        | 21.48%        | 21.68%        |  |
| Power Tolerance                     | 0~+5W         | 0~+5W         | 0~+5W         | 0~+5W         | 0~+5W         |  |
| Maximum System Voltage              |               | VDC 1500V     |               |               |               |  |
| Maximum Series Fuse                 | 25A           |               |               |               |               |  |
| Increased Snowload Acc.to lec 6121  | 5 5400Pa      |               |               |               |               |  |
| Operating Temperature               | -40∼+85°C     |               |               |               |               |  |
| Number Of Bypass Diodes             | 3             |               |               |               |               |  |
| Norminal Operating Cell Temperature | e(Noct)       |               | 45℃±2°        | °C            |               |  |
| Temperature Coefficient Of Pmax     |               | -0.35%℃       |               |               |               |  |
| Temperature Coefficient Of Voc      |               | -0.27%°C      |               |               |               |  |
| Temperature Coefficient Of Isc      |               | 0.05%°C       |               |               |               |  |

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



