SUNERGY

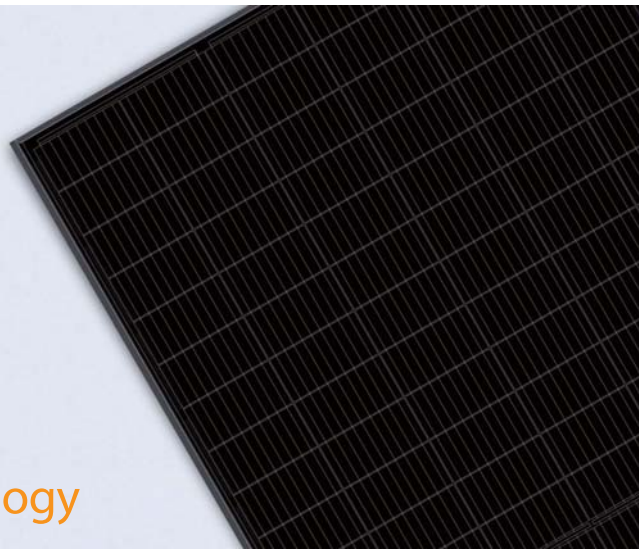
SUNERGY USA WORKS LLC

www.sunergyworks.com

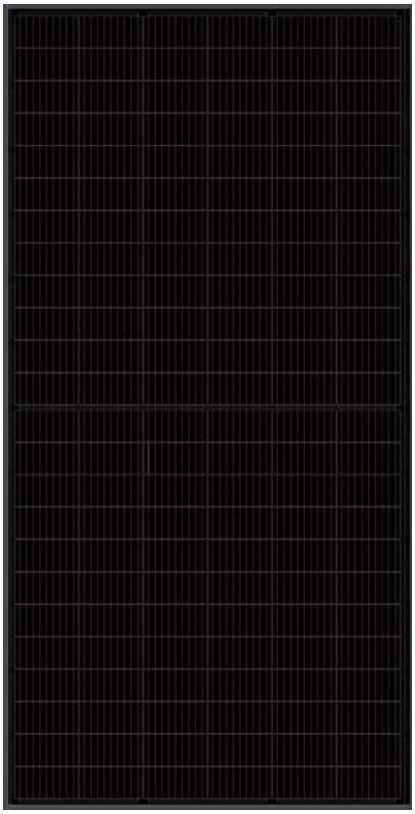
SUN 72M-HF (BK)
395W/400W/405W/ 410W/415W/420W/

9BB HALF-CELL MONO PV MODULE

ISO 9001: 2015 Quality management systems;
ISO 14001: 2015 Environmental management systems;
OHSAS 18001: 2007 Occupational health and safety management systems;



Power
Space
Technology



High output power

Assembled with multi-busbar PERC cells,the half-cell configuration of the modules offers the advantages of higher power output,reduces BOS cost effectively;

Better power generation under shadows

Special half-cell design reduces the energy loss caused by shadows,better anti-shading performance;

Strong anti-hot spot ablity

Lower hot spot risks due to half-cell layout,offers an additional level of safety;

1500V system voltage

1500V DC voltage of the system,reducing the cost of the system side;

Super strong frame

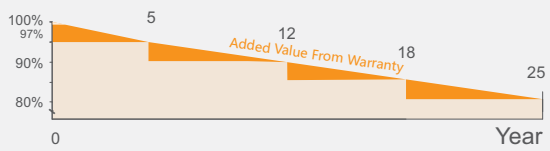
The overflow tank is waterproof with double layers,and the cross section contains hooked aluminum frame,which enhances the mechanical load strength by 10%;

Strong mechanical load capacity

Passed the certification test of 5400 Pa snow load and 2400 Pa wind load;

LINEAR PERFORMANCE WARRANTY

- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



QUALIFICATIONS AND CERTIFICATES

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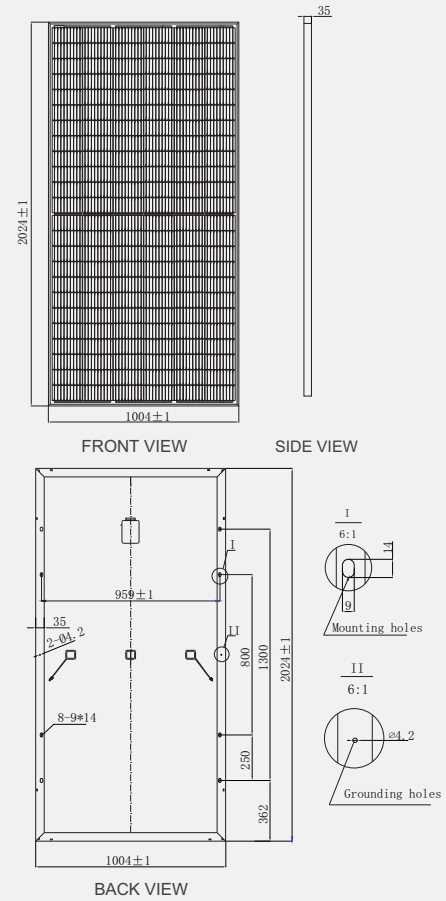
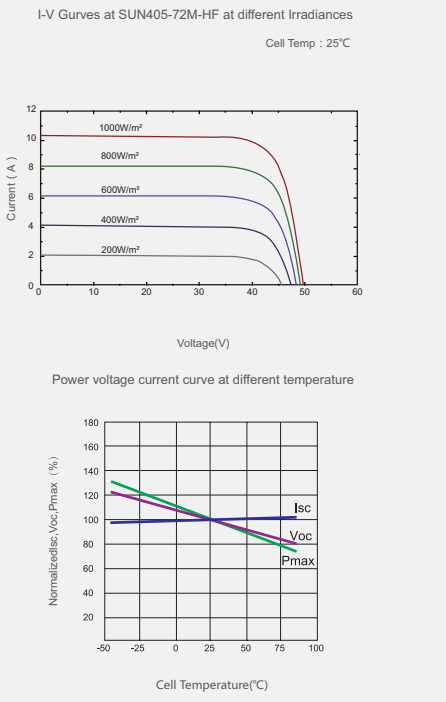
MECHANICAL DRAWINGS



I-V CURVES



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 158.75x79.375mm
Number Of Cells	144（6x24）
Dimensions(AxBxC)	2024x1004x35mm
Weights	23.0kg
Glass	3.2mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP68 ,three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm²,+300mm,-300mm Customized Length

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	395W	400W	405W	410W	415W	420W
Short Circuit Current(Isc)	10.24A	10.31A	10.40A	10.47A	10.56A	10.64A
Open Circuit Voltage(Voc)	49.4V	49.7V	49.9V	50.2V	50.4V	50.7V
Maximum Power Current(Impp)	9.78A	9.85A	9.93A	10.00A	10.07A	10.15A
Maximum Power Voltage(Vmpp)	40.4V	40.6V	40.8V	41.0V	41.2V	41.4V
Module Efficiency	19.44%	19.68%	19.93%	20.18%	20.42%	20.67%
Power Tolerance	0~+5w	0~+5w	0~+5w	0~+5w	0~+5w	0~+5w

STC: 1000W/m2 irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	296.9	300.7	304.4	308.2	311.9	315.7
Short Circuit Current(Isc)	8.29	8.35	8.42	8.48	8.55	8.61
Open Circuit Voltage(Voc)	46.1	46.3	46.5	46.8	47.0	47.3
Maximum Power Current(Impp)	7.86	7.91	7.98	8.03	8.10	8.17
Maximum Power Voltage(Vmpp)	37.8	38.0	38.1	38.4	38.5	38.7

NOCT: Irradiance at 800W/m² , Ambient Temperature 20°C , wind speed 1m/s .

SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1500V
Maximum Series Fuse	20A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85℃
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Norminal Operating Cell Temperature(Noct)	45℃±2℃
Temperature Coefficient Of Pmax	-0.36%℃
Temperature Coefficient Of Voc	-0.29%℃
Temperature Coefficient Of Isc	0.05%℃

PACKING CONFIGURATION

Container	40’ HQ
Pieces Per Pallet	30
Pallets Per Container	22
Pieces Per Container	660