



SUNERGY

SUNERGY USA WORKS LLC

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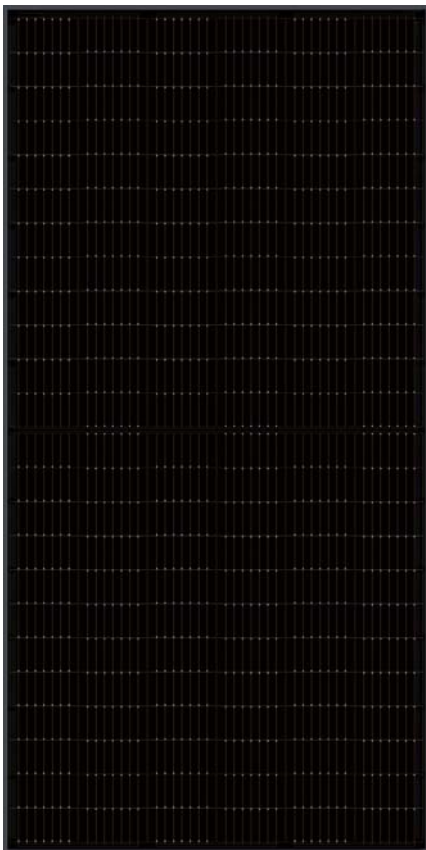
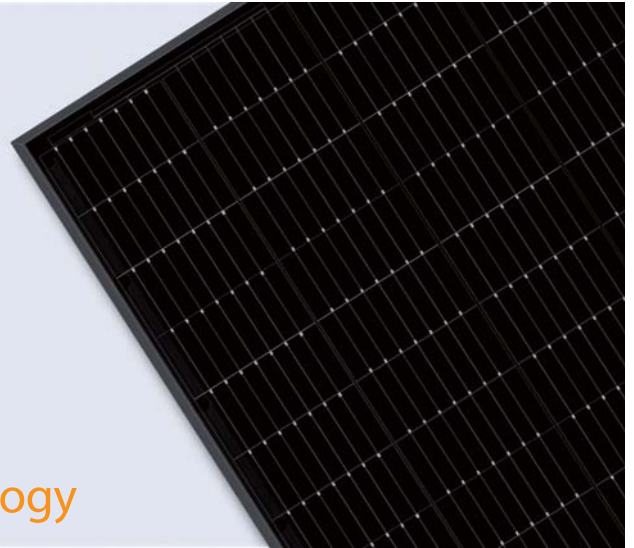
SUN 72M-HFD(BK)

395W/400W/405W/
410W/415W/420W/
425W

SQUARE-MONO PERC HALF
CELL MODULE

IEC61215 / IEC61730 / IEC61701 /
IEC62716 / IEC62804

Power
Space
Technology



High output power



Higher module conversion efficiency (up to 20.91%) benefit from half cell structure (low resistance characteristic), output power can up to 425W

7BB PV cell



More uniform current collection ability, which reduces the current loss of the battery inside the module;

Connection of triangular welding belt



The utilization rate of incident light irradiated on the triangle welding belt is over 90%. The triangle welding belt has a visual invisible effect, and the solar PV module looks more beautiful;

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%;

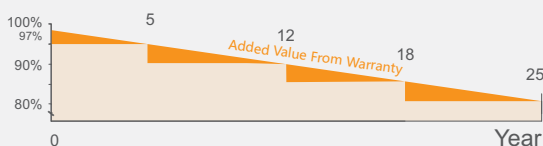
Strong mechanical load capacity



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

LINEAR PERFORMANCE WARRANTY

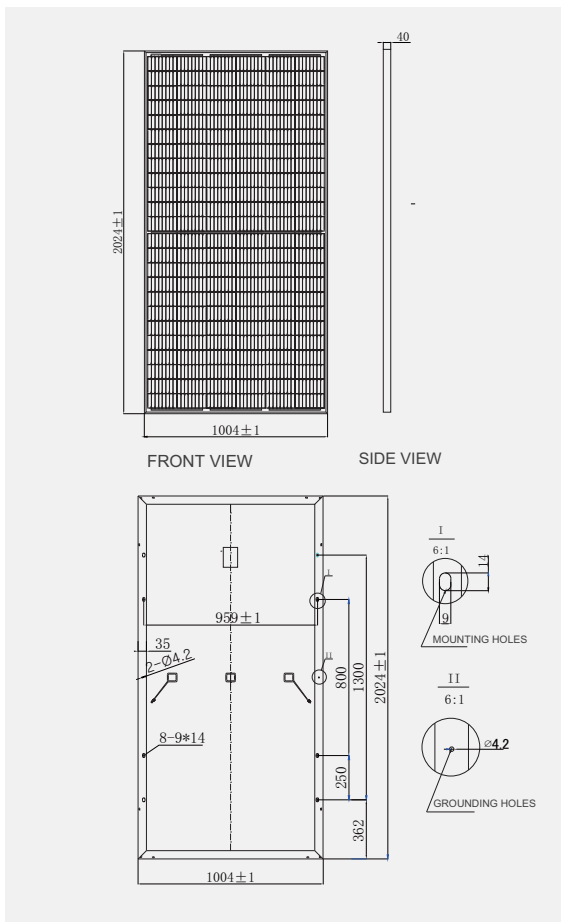
- 12 Years Manufacturing Warranty
- 12 Years 90% Power Output
- 25 Years 80% Power Output



QUALIFICATIONS AND CERTIFICATES



MECHANICAL DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 158.75x158.75mm
Number Of Cells	144 (6x12)
Dimensions(AxBxC)	2024x1004x40mm
Weights	23.5kg
Glass	3.2mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP67 ,three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm ² ,+300mm,-300mm Customized Length

ELECTRICAL CHARACTERISTICS

Maximum Power At STC(Pmax)	395W	400W	405W	410W	415W	420W	425W
Short Circuit Current(Isc)	10.24A	10.31A	10.40A	10.47A	10.56A	10.64A	10.71A
Open Circuit Voltage(Voc)	49.4V	49.7V	49.9V	50.2V	50.4V	50.7V	51.0V
Maximum Power Current(Imp)	9.78A	9.85A	9.93A	10.00A	10.07A	10.15A	10.22A
Maximum Power Voltage(Vmpp)	40.4V	40.6V	40.8V	41.0V	41.2V	41.4V	41.6V
Module Efficiency	19.44%	19.68%	19.93%	20.18%	20.42%	20.67%	20.91%
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%

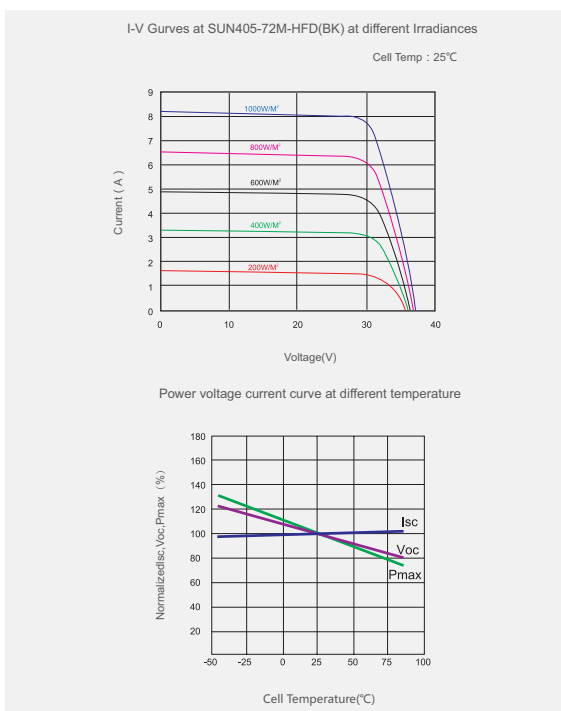
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5.

NOCT

Maximum Power At STC(Pmax)	296.9	300.7	304.4	308.2	311.9	315.7	319.5
Short Circuit Current(Isc)	8.29	8.35	8.42	8.48	8.55	8.61	8.67
Open Circuit Voltage(Voc)	46.1	46.3	46.5	46.8	47.0	47.3	47.6
Maximum Power Current(Imp)	7.86	7.91	7.98	8.03	8.10	8.17	8.22
Maximum Power Voltage(Vmpp)	37.8	38.0	38.1	38.4	38.5	38.7	38.9

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

I-V CURVES



SYSTEM INTEGRATION PARAMETERS

Maximum System Voltage	VDC 1500V
Maximum Series Fuse	15A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

TEMPERATURE CHARACTERISTICS

Nominal 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

PACKING CONFIGURATION

Container	40' HQ
Pieces Per Pallet	27
Pallets Per Container	22
Pieces Per Container	594