Multi Busbar Monocrystalline Half Cell PV Module

MUL-2M-470W-120

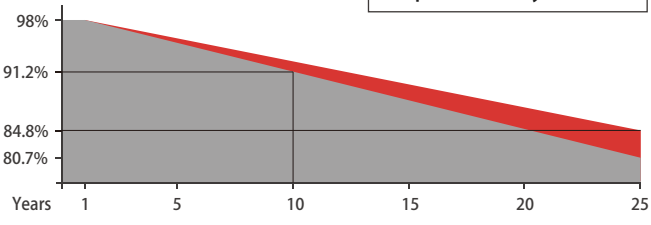
Power Output	Power Tolerance	Maximum Efficiency
435-470W	0～+5W	21.9%

- Assembled with multi-busbar cells , reduce shading effect on the energy generation, lower risk of hot spot
- Pass the test for weather resistance in harsh environments (salt mist, ammonia corrosion and sand)
- Excellent encapsulating materials and strict production process to ensure highly resistance against PID (Potential Induced Degradation) of PV module.
- Lower oxygen and carbon content result in lower LID.
- Series and parallel design, reduce the series resistance RS of module, reduce the loss of internal electrical performance, and improve the power generation capacity of whole system.
- Cutting solar cell technology, which significantly reduces string current and module damage,it is good choice for projects in high temperature areas.

MULTIFIT Offers Long-term Quality Assurance

- 12 years Product Warranty
- 25 years Linear Power Output Warranty
- The attenuation of the power output in the first year ⩽2%, the annual average attenuation after the first year ⩽0.55%

MULTIFIT Linear Power Output Warranty Standard



* More details please read the guarantee letter.

Product Certification & Management Certification

- IEC61215/IEC61730
- ISO 9001:Quality Management System
- ISO 14001:Environment Management System
- ISO 45001:Occupation Health Safety Management System

MUL-2M-470W-120

Electrical performance parameters (STC)

Power Output	Pmax(W)	435	440	445	450	455	460	465	470
Rated Power Maximum Voltage	Vmp(V)	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2
Rated Power Maximum Current	Imp(A)	12.73	12.82	12.91	13.00	13.08	13.17	13.26	13.35
Open Circuit Voltage	Voc(V)	40.6	40.7	40.9	41.0	41.2	41.3	41.5	41.6
Short Circuit Current	Isc(A)	13.36	13.44	13.53	13.61	13.69	13.78	13.86	13.95
Module Efficiency	(%)	20.3	20.5	20.8	21.0	21.2	21.5	21.7	21.9
Power Tolerance	(W)	0～+5W							

* STC : 1000W/m2 irradiance, 25° C module temperature, AM1.5 spectrum.

Electrical performance parameters (NMOT)

Power output	Pmax (W)	329.3	333.1	336.8	340.6	344.4	348.2	352.0	355.7
Rated Power Maximum Voltage	Vmp (V)	31.7	31.8	32.0	32.1	32.3	32.4	32.5	32.7
Rated Power Maximum Current	Imp (A)	10.38	10.46	10.53	10.60	10.67	10.75	10.82	10.89
Open Circuit Voltage	Voc (V)	38.3	38.5	38.6	38.7	38.9	39.0	39.2	39.3
Short Circuit Current	Isc (A)	10.70	10.76	10.83	10.90	10.97	11.03	11.10	11.17

* NMOT:800W/m2 irradiance, 20°C module temperature, 1m/s wind speed.

Structure Features

Solar Cell	182MONO(Half Cell)
Solar Cell Array	120 pcs(6x20)
Module Dimension	1890×1133×35mm
Weight	22.5 kg
Glass	3.2 mm (0.13 inches) highly transparent anti-reflection coating tempered glass
Back sheet	White
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm², L=300 mm、PV cable
Diode Quantity	3
Wind Pressure/Snow Pressure	2400pa / 5400pa
Connector	MC4 Compatible

* More details please read the installation manual.

Temperature Characteristics

Solar Cells Rated Working Temperature	43±2℃
Temperature Coefficient (Isc)	+0.050%/℃
Temperature Coefficient (Voc)	-0.280%/℃
Temperature Coefficient (Pmax)	-0.360%/℃

Maximum Ratings

Working Temperature	-40~+85℃
Maximum System Voltage	1500V DC
Maximum Fuse Rated Current	25A

PACKAGING

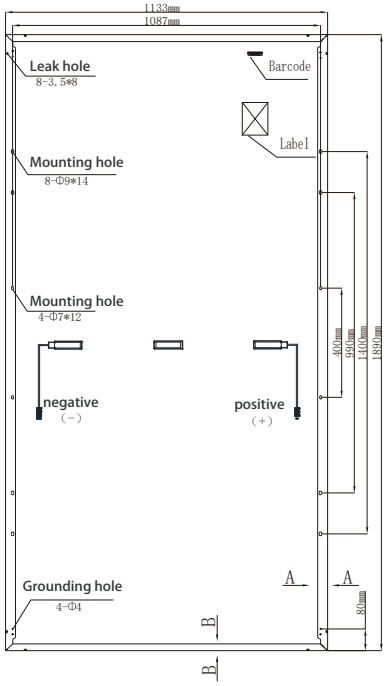
Number of modules per pallet		31 pcs
17.5*2.8m	Flatbed loading	1054 pcs
13.0*2.35m	Flatbed loading	806 pcs
40HQ	Standard container	744 pcs

Optional

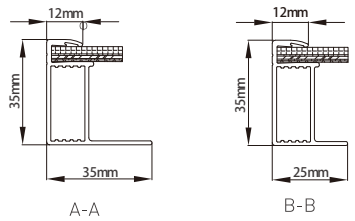
Connector	☐ Original MC4
Cable length	☐ 1000mm ☐ 900mm
Frame	☐ Black
Solar Module Dimension	☐ 1890x1134x40mm
Back sheet color	☐ Black ☐ Transparency

Power measurement error +/-3%

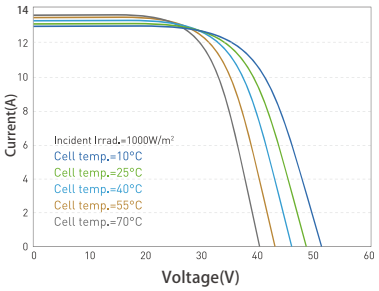
Module Dimension



Back View



I-V curves of module under different temperature(455w)



I-V curves/P-V curves of module under different irradiation(455w)