



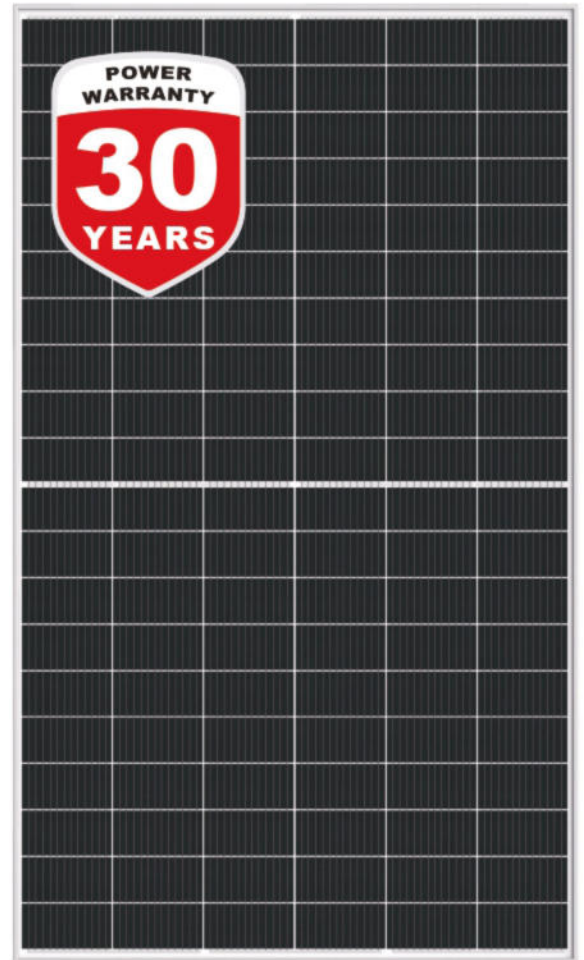
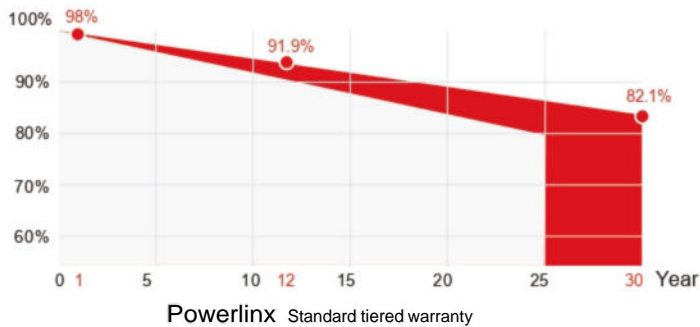
M12 HIEFF TWIN MONO

PW XXX-120M12 580~605W

- Double glass
- Silver frame
- Black frame
- Full black

15 Yr quality guarantee | 30 Yr power warranty

 **Powerlinx** (Additional value from 30-year warranty)
 Industry Standard



WARRANTY & GUARANTEE

Linear output power guarantee
 12 years: 91.9% power output
 30 years: 82.1% power output

WITHSTAND STRONG

Snow load 5400Pa
 Wind bad 2400Pa

TWO-SIDED BENEFITS

High efficiency solar cells.
 Effective working area of both sides >75%, with significant power increase. Capture more sunlight and turn it into electricity

R&D AND PRODUCTION

Advanced production line. The hading solar cell cutting process and multi busbar design with SUNPRO Technology.

HIGH EFFICIENCY

Efficiency can reach 21.38%. Excellent bw light performance. Higher power output under the conditbns of haze, overcast, etc.

Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m2 .Cells Temperature25°C)

| Typical type | 580W | 585W | 590W | 595W | 600W | 605W |
|----------------------------|--------------------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 580 | 585 | 590 | 595 | 600 | 605 |
| Max power voltage(Vmp) | 33.60 | 33.80 | 34.00 | 34.20 | 34.40 | 34.60 |
| Max power current(Imp) | 17.27 | 17.31 | 17.35 | 17.40 | 17.45 | 17.49 |
| Open circuit voltage(Voc) | 40.70 | 40.90 | 41.10 | 41.30 | 41.50 | 41.70 |
| Short circuit current(Isc) | 18.32 | 18.37 | 18.42 | 18.47 | 18.52 | 18.57 |
| Module Efficiency(%) | 20.49 | 20.67 | 20.85 | 21.02 | 21.20 | 21.38 |
| Max system voltage | DC 1500V(TUV,UL) | | | | | |
| Maximum Series Fuse Rating | 35A(TUV) / 40A(UL) | | | | | |

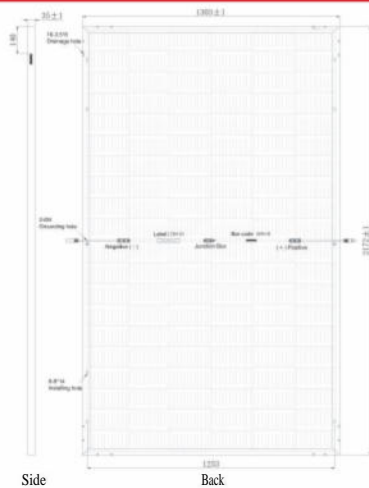
Electrical parameters at NMOT test conditions (Irradiance 800W/m2,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s)

| Typical type | 580W | 585W | 590W | 595W | 600W | 605W |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 433 | 437 | 441 | 445 | 449 | 453 |
| Max power voltage(Vmp) | 31.40 | 31.50 | 31.70 | 31.80 | 32.10 | 32.20 |
| Max power current(Imp) | 13.79 | 13.88 | 13.92 | 13.97 | 14.02 | 14.06 |
| Open circuit voltage(Voc) | 38.30 | 38.40 | 38.60 | 38.80 | 39.00 | 39.20 |
| Short circuit current(Isc) | 14.74 | 14.78 | 14.82 | 14.86 | 14.90 | 14.94 |

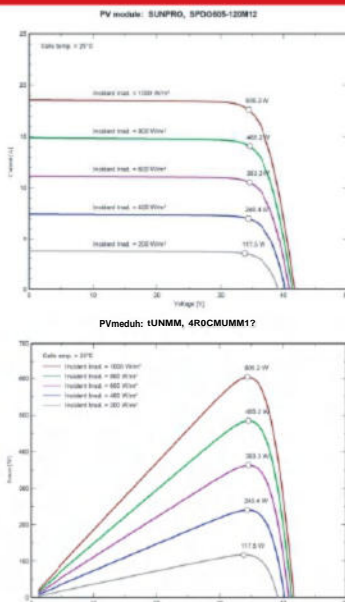
Electrical Characteristics with 15% Rear Side Power Gain

| Front power Pmax/W | 580W | 585W | 590W | 595W | 600W | 605W |
|--------------------|-------|--------|-------|--------|-------|--------|
| Total power Pmax/W | 667 | 672.75 | 678.5 | 684.25 | 690 | 695.75 |
| VmpV(Total) | 33.60 | 33.80 | 34.00 | 34.20 | 34.40 | 34.60 |
| ImpZA(Total) | 19.85 | 19.90 | 19.96 | 20.01 | 20.06 | 20.11 |
| VocV(Total) | 40.70 | 40.90 | 41.10 | 41.30 | 41.50 | 41.70 |
| IscA(Total) | 21.07 | 21.13 | 21.18 | 21.24 | 21.30 | 21.35 |

DIMENSIONS AND STRUCTURE



I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Mechanical Data

| | |
|-----------------|--|
| Dimensions | 2172x1303x35mm |
| Weight | 35 kg |
| Glass | (F) 2.0mm ultra clear embossed semi-tempered coated glass (B) 2.0mm semi-tempered glass |
| Output cables | 4mm2, symmetrical lengths 1300mm |
| Connectors | MC4 compatible IP68 |
| Cell type | Mono-Crystalline PERC, 210x105mm |
| Number of cells | 120 cells (Half-Cell) |

Temperature Characteristics

| | |
|-----------------------------------|-----------|
| Temp.Coeff of Isc(TK Isc) | 0.05%/ °C |
| Temp Coeff of Voc(TK Voc) | -0.27%/°C |
| Temp Coeff of Pmax(TK Pmax) | -0.34%/°C |
| Operating temperature | -40~+85°C |
| Normal operating cell temperature | 44±2C |

Packing Configuration

| | |
|-----------------------|-------|
| Container | 40'HQ |
| Pieces per pallet | 31 |
| Pallets per container | 17 |
| Pieces per container | 527 |

Tests, Certifications and Warranties

| | |
|-------------------------------------|---|
| Standard tests | IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042 |
| System certs | ISO 9001, ISO14001, ISO45001 |
| Certifications | TUV, CE, UL, WEEE |
| Extreme wind and snow loads testing | Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal) |
| Power tolerance | 0~+3% |
| Junction box | IP 68 |
| Warranties | 15 years product warranty and 30 years 82.1% of power |