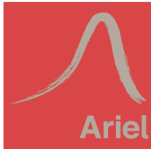


Tier1

BloombergNEF



Lloyd's Syndicate 1910



ISO14001 ISO9001 ISO45001

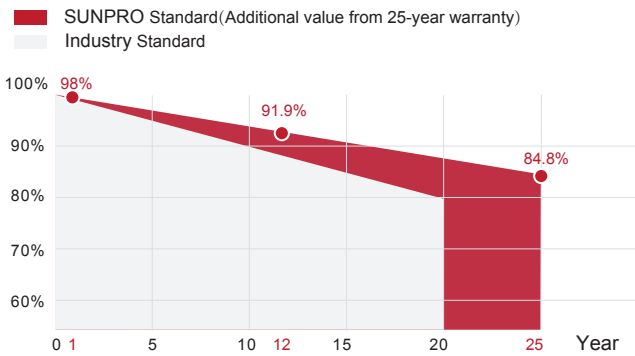


M12 HIEFF TWIN MONO

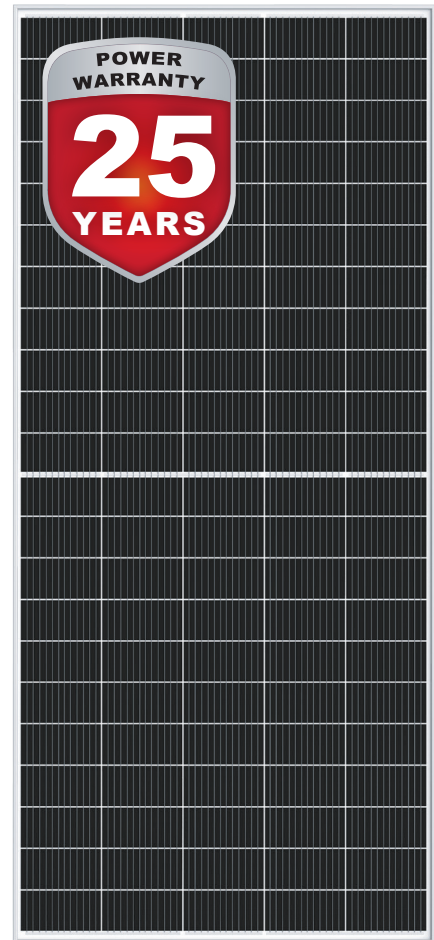
SPxxx-110M12

- Silver frame (xxx=530~555W)
- Black frame
- Full black
- Bifacial

12Yr quality guarantee | 25Yr power warranty



*SUNPRO Standard tiered warranty



WARRANTY & GUARANTEE

Linear output power guarantee
12 years: 91.9% power output
25 years: 84.8% power output



WITHSTAND STRONG

Snow load 5400Pa
Wind load 2400Pa



R&D AND PRODUCTION

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



HIGH EFFICIENCY

Efficiency can reach 21.20%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.



POWER TOLERANCE

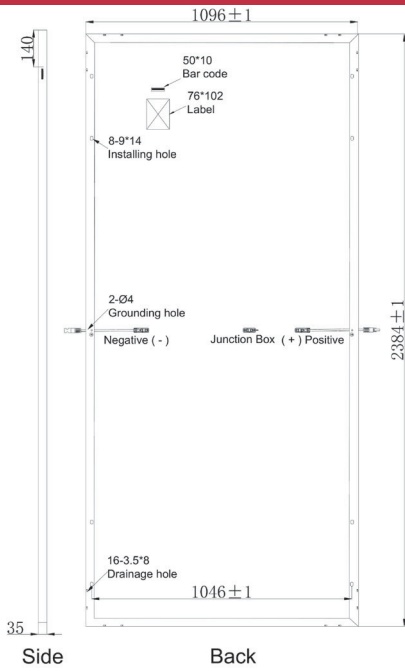
Power positive tolerance: 0~+3%

Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m², Cells Temperature 25°C)

Typical type

| | 530W | 535W | 540W | 545W | 550W | 555W |
|----------------------------|---------------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 530 | 535 | 540 | 545 | 550 | 555 |
| Max power voltage(Vmp) | 30.80 | 30.99 | 31.19 | 31.39 | 31.59 | 31.79 |
| Max power current(Impp) | 17.22 | 17.27 | 17.32 | 17.36 | 17.41 | 17.46 |
| Open circuit voltage(Voc) | 37.09 | 37.29 | 37.49 | 37.69 | 37.89 | 38.09 |
| Short circuit current(Isc) | 18.32 | 18.37 | 18.42 | 18.47 | 18.52 | 18.57 |
| Module Efficiency(%) | 20.30 | 20.50 | 20.70 | 20.90 | 21.00 | 21.20 |
| Max system voltage | DC 1500V(TUV) | | | | | |
| Maximum Series Fuse Rating | 30A | | | | | |

DIMENSIONS AND STRUCTURE



Electrical parameters at NMOT test conditions

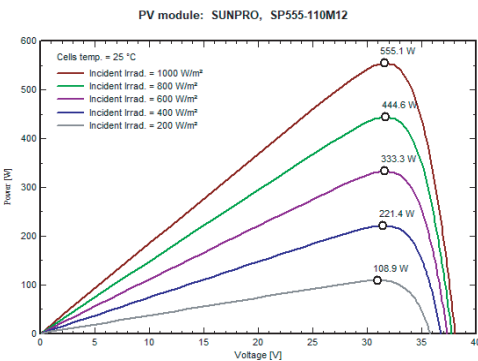
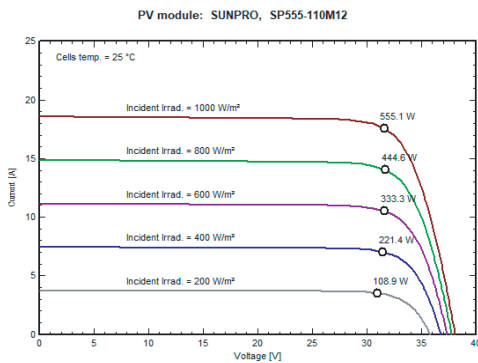
(Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s)

| Typical type | 530W | 535W | 540W | 545W | 550W | 555W |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 432.0 | 435.8 | 439.8 | 443.5 | 447.5 | 451.5 |
| Max power voltage(Vmp) | 31.30 | 31.40 | 31.60 | 31.80 | 32.00 | 32.2 |
| Max power current(Impp) | 13.82 | 13.86 | 13.90 | 13.94 | 13.99 | 14.03 |
| Open circuit voltage(Voc) | 37.30 | 37.50 | 37.70 | 37.80 | 38.00 | 38.20 |
| Short circuit current(Isc) | 14.64 | 14.68 | 14.72 | 14.76 | 14.80 | 14.84 |

Mechanical Data

| | |
|-----------------|---|
| Dimensions | 2384x1096x35mm |
| Weight | 28.6 kg |
| Glass | 3.2mm tempered glass |
| Output cables | 4mm ² , symmetrical lengths 1300mm |
| Connectors | MC4 compatible IP68 |
| Cell type | Mono-Crystalline PERC, 12BB, 210x105mm |
| Number of cells | 110 cells (Half-Cell) |

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Temperature Characteristics

Packing Configuration

| | | | |
|-----------------------------------|-----------|-----------------------|-------|
| Temp.Coeff.of Isc(TK Isc) | 0.049%/°C | Container | 40'HQ |
| Temp.Coeff.of Voc(TK Voc) | -0.27%/°C | Pieces per pallet | 62 |
| Temp.Coeff.of Pmax(TK Pmax) | -0.35%/°C | Pallets per container | 10 |
| Operating temperature | -40~+85°C | Pieces per container | 620 |
| Normal operating cell temperature | 44±2°C | | |

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, WEEE, INMERTRO, FIRE CERTIFICATE C1 |
| 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 | 12 years product warranty and 25 years 84.8% of power |