



M10 HIEFF TWIN MONO by SUNPRO

SPxxx-144M10
(xxx=530~550)

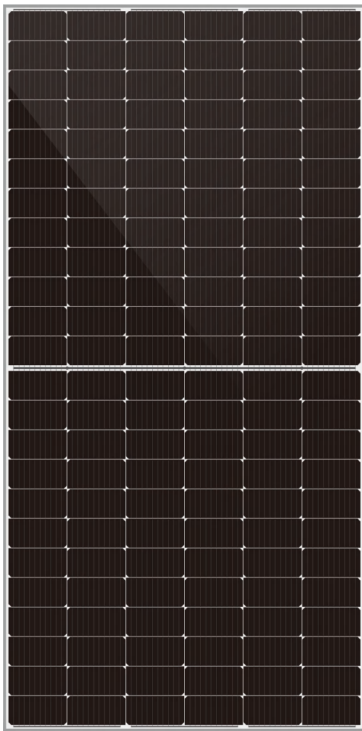
HIGH EFFICIENCY



ISO 14001

ISO 9001

ISO 45001



POWER TOLERANCE

0~+3%



WITHSTAND STRONG SNOW LOAD

5400 Pa/ WIND LOAD 2400 Pa



NEW TECHNOLOGY:

HIEFF UP TO 21.28%

Higher yield per surface area,
lower BOS costs, higher power classes,
and an efficiency rate of up to 21.28%.

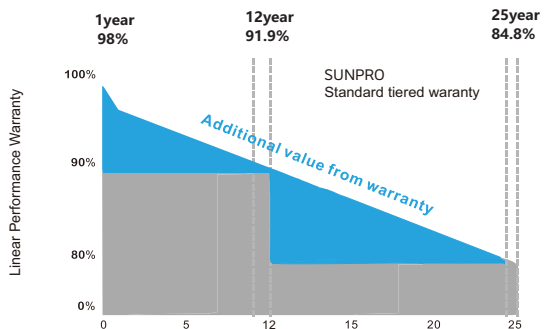


PRODUCT WITH HIEFF BY SUNPRO TECHNOLOGY

SUNPRO combines cutting edge cell
separation and innovative 10-busbar
design with SUNPRO Technology.

Reliability & Certification

Product Guarantee: **12-year**
Linear Performance Warranty
12-year: 91.9% power output
25-year: 84.8% power output



Product Specification

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

| Typical type | 530W | 535W | 540W | 545W | 550W |
|-----------------------------|-------------------------------|-------|-------|-------|-------|
| Max power(Pmax) | 530 | 535 | 540 | 545 | 550 |
| Open circuit voltage (Voc) | 49.26 | 49.42 | 49.58 | 49.74 | 49.90 |
| Short circuit current (Isc) | 13.69 | 13.76 | 13.84 | 13.92 | 14.00 |
| Max power voltage(Vmp) | 41.39 | 41.54 | 41.69 | 41.83 | 41.96 |
| Max power current(Imp) | 12.81 | 12.88 | 12.96 | 13.06 | 13.11 |
| Module Efficiency(%) | 20.51 | 20.70 | 20.89 | 21.09 | 21.28 |
| Max system voltage | DC 1500V(TUV) / DC 1000V(TUV) | | | | |
| Maximum Series Fuse Rating | 25A | | | | |

Electrical parameters at NMOT test conditions

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

| Item | 530W | 535W | 540W | 545W | 550W |
|-----------------------------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 429.9 | 434.6 | 439.0 | 442.8 | 446.8 |
| Open circuit voltage (Voc) | 49.5 | 49.6 | 49.8 | 49.9 | 50.1 |
| Short circuit current (Isc) | 10.93 | 10.99 | 11.05 | 11.12 | 11.18 |
| Max power voltage(Vmp) | 41.7 | 41.9 | 42.0 | 42.1 | 42.3 |
| Max power current(Imp) | 10.30 | 10.38 | 10.45 | 10.51 | 10.57 |

Mechanical Data

| Item | Specification |
|-----------------|--|
| Dimensions | 2279x1134x35mm |
| Weight | 29kg |
| Front glass | 3.2mm tempered glass |
| | 4mm ² |
| Output cables | symmetrical lengths 1300mm |
| Connectors | MC4 compatible IP68 |
| Cell type | Mono-Crystalline PERC Half-Cell 10BB 91x182mm |
| Number of cells | 144 cells |

Temperature Characteristics

| Item | Specification |
|-----------------------------------|---------------|
| Temp.Coeff.of Isc(TK Isc) | 0.05%/°C |
| Temp.Coeff.of Voc(TK Voc) | -0.29%/°C |
| Temp.Coeff.of Pmax(TK Pmax) | -0.34%/°C |
| Operating temperature | -40~+85°C |
| Normal operating cell temperature | 44±2°C |

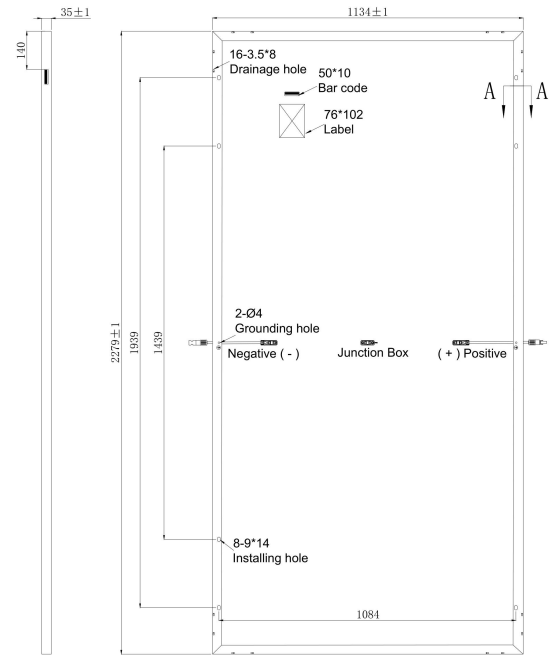
Packing Configuration

| Item | Specification |
|-----------------------|---------------|
| Container | 40'HQ |
| Pieces per pallet | 62 |
| Pallets per container | 10 |
| Pieces per container | 620 |

Test, Certifications and Warranties

| Item | Specification |
|-------------------------------------|--|
| Standard tests | IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042B |
| System certs | ISO 9001, ISO14001, ISO45001 |
| Certifications | TUV, AMMONIA AND SALT MIST CORROSION, ANTI-PID, CE, WEEE, INMERTRO |
| Extreme wind and snow loads testing | Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal) |
| Power tolerance | 0~+3% |
| Junction box | IP68 |
| Warranties | 12 years product warranty and 25 years 84.8% of power |

Dimensions and Structure



I-V Curve

I-V characteristics at different irradiation

