

p.n.420013

# 540w mono 144 half cut solar panel by 182mm solar cells, size 2094\*1038\*35mm, Grade A

SPxxx-144M10  
 (xxx=530~550)

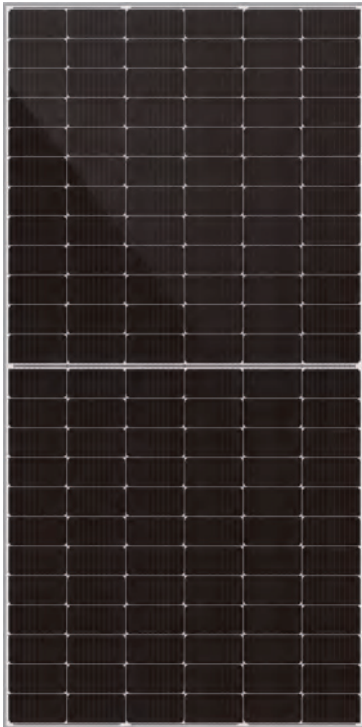
HIGH EFFICIENCY



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%.

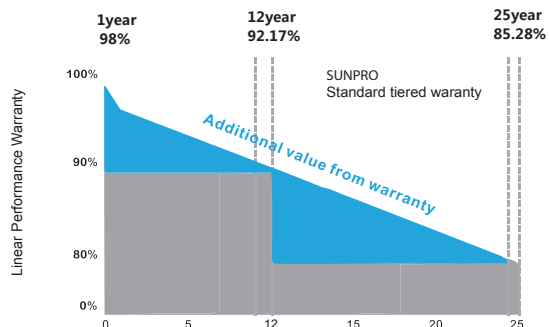


## PRODUCT WITH HIEFF BY SUNPRO TECHNOLOGY

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: 92.17% power output  
 25-year: 85.28% power output



## Product Specification

Electrical parameters at standard test conditions  
 (STC:AM=1.5,1000W/m<sup>2</sup>,Cells Temperature 25°C)

| Typical type               | 530W                         | 535W  | 540W  | 545W  | 550W  |
|----------------------------|------------------------------|-------|-------|-------|-------|
| Max power(Pmax)            | 530                          | 535   | 540   | 545   | 550   |
| Max power voltage(Vmp)     | 49.26                        | 49.42 | 49.58 | 49.74 | 49.90 |
| Max power current(Imp)     | 13.69                        | 13.76 | 13.84 | 13.92 | 14.00 |
| Open circuit voltage(Voc)  | 41.39                        | 41.54 | 41.69 | 41.83 | 41.96 |
| Short circuit current(Isc) | 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/m<sup>2</sup>,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 |
| Max power voltage(Vmp)     | 49.5  | 49.6  | 49.8  | 49.9  | 50.1  |
| Max power current(Imp)     | 10.93 | 10.99 | 11.05 | 11.12 | 11.18 |
| Open circuit voltage(Voc)  | 41.7  | 41.9  | 42.0  | 42.1  | 42.3  |
| Short circuit current(Isc) | 10.30 | 10.38 | 10.45 | 10.51 | 10.57 |

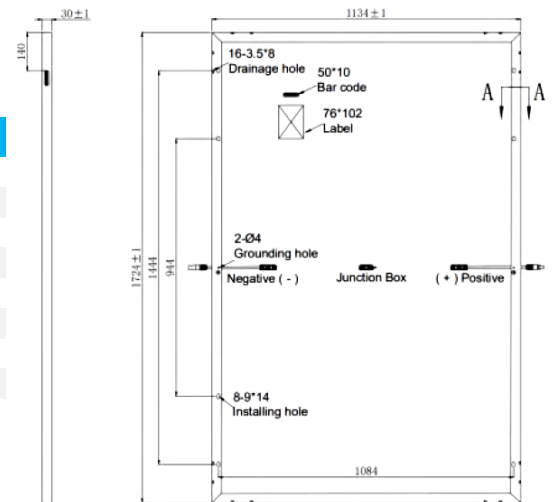
## Mechanical Data

| Item            | Specification                                |
|-----------------|--|
| Dimensions      | 2279x1134x35mm                               |
| Weight          | 29kgs  |
| Front glass     | 3.2mm tempered glass                         |
|                 | 4mm <sup>2</sup>                             |
| Output cables   | symmetrical lengths<br>1300mm                |
| Connectors      | MC4 compatible IP68                          |
| Cell type       | Mono-Crystalline PERC Half-Cell 10B 83x166mm |
| Number of cells | 144 cells                                    |

## Temperature characteristics

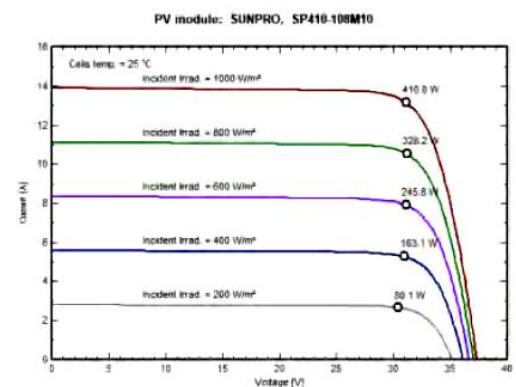
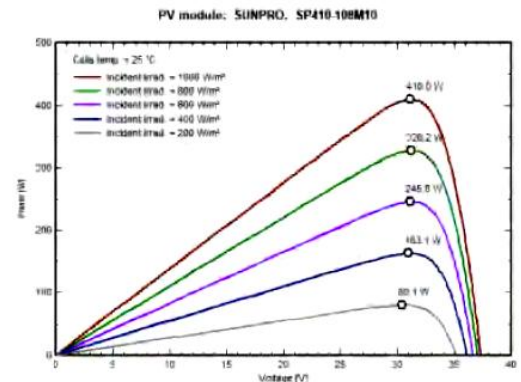
| Item                              | Specification |
|-----------------------------------|---------------|
| Temp.Coeff.of Isc(TK Isc)         | 0.05% / °C    |
| Temp.Coeff.of Voc(TK Vod)         | -0.29% / °C   |
| Temp.Coeff.of Pmax(TK Pmax)       | -0.34% / °C   |
| Operating temperature       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

## Dimensions and Structure



## I-V Curve

I-V characteristics at different irradiation



## Packing Configuration

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

## Tests, Certifications and Warranties

| Item                                | Specification  |
|-------------------------------------|--|
| Standard tests                      | IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042B             |
| System Certs                        | ISO 9001, ISO 14001, 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 85.28% of power             |