

Tier1

BloombergNEF



ISO 9001
ISO 45001

ISO 14001
OHSAS 18001



186.8R TOPCON BIFACIAL

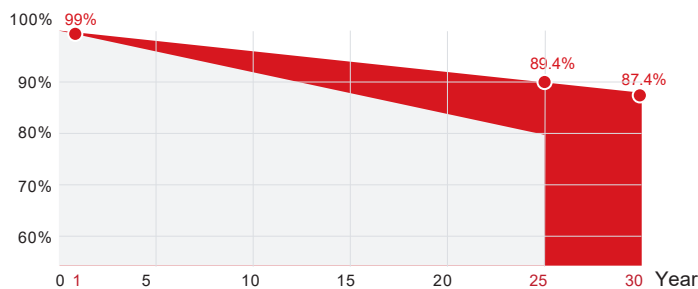
SPDGxxx-N132R10

520~545W

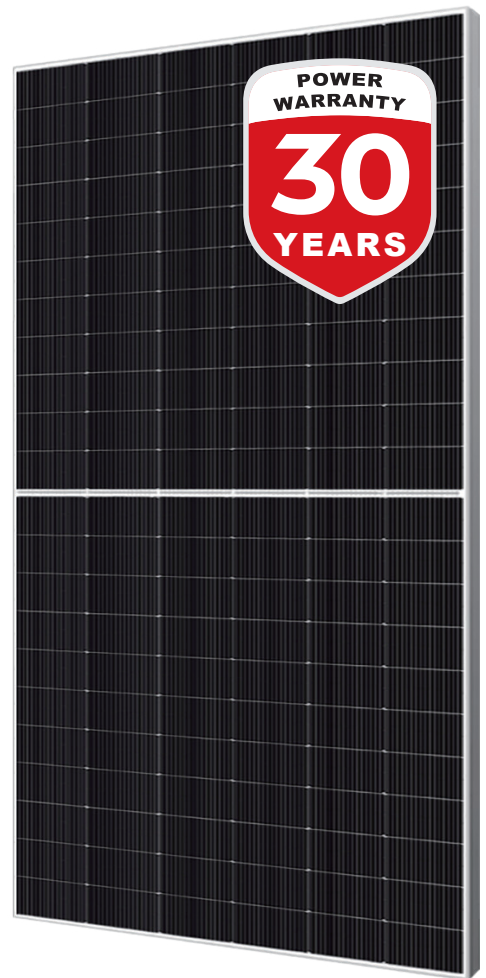
- Double glass
- Silver frame
- White mesh

25 Yr quality guarantee | 30 Yr power warranty

■ SUNPRO TOPCon module (Additional value from 30-year warranty)
 ■ Common module



*SUNPRO Standard tiered warranty



WARRANTY & GUARANTEE

Linear output power guarantee
 25 years: 89.4% power output
 30 years: 87.4% power output



WITHSTAND STRONG

Snow load 5400Pa
 Wind load 2400Pa



PID RESISTANCE

Power positive tolerance 0~+5W.
 The attenuation probability of PID phenomenon is minimized through battery production technology optimization and material control



R&D AND PRODUCTION

Advanced production line. Bifaciality>80%, effectively improves backside power generation. The leading solar cell cutting process and multi busbar design with SUNPRO Technology.



HIGH EFFICIENCY

N-type, Components have better reliability and lower LID/LETID attenuation. Efficiency can reach 22.41%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

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

| Typical type | 520W | 525W | 530W | 535W | 540W | 545W |
|----------------------------|----------------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 520 | 525 | 530 | 535 | 540 | 545 |
| Max power voltage(Vmp) | 39.25 | 39.39 | 39.53 | 39.66 | 39.80 | 39.96 |
| Max power current(Imp) | 13.25 | 13.33 | 13.41 | 13.49 | 13.57 | 13.64 |
| Open circuit voltage(Voc) | 47.46 | 47.59 | 47.72 | 47.87 | 48.01 | 48.14 |
| Short circuit current(Isc) | 13.80 | 13.88 | 13.96 | 14.03 | 14.11 | 14.19 |
| Module Efficiency(%) | 21.38 | 21.58 | 21.79 | 21.99 | 22.20 | 22.41 |
| Max system voltage | DC 1500V (TÜV) | | | | | |
| Maximum Series Fuse Rating | 30A | | | | | |

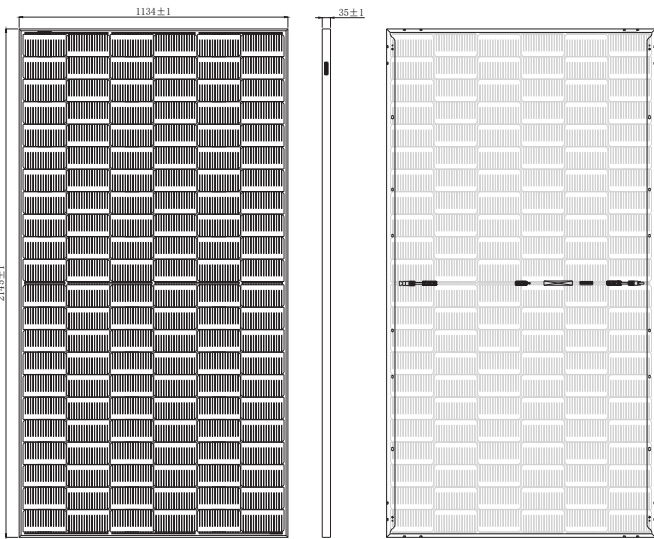
Electrical Characteristics with 15% Rear Side Power Gain

| Front power Pmax/W | 520W | 525W | 530W | 535W | 540W | 545W |
|--------------------|-------|--------|-------|--------|-------|--------|
| Total power Pmax/W | 598 | 603.75 | 609.5 | 615.25 | 621 | 626.75 |
| Vmp/V(Total) | 39.25 | 39.39 | 39.53 | 39.66 | 39.80 | 39.96 |
| Imp/A(Total) | 15.24 | 15.33 | 15.42 | 15.51 | 15.60 | 15.68 |
| Voc/V(Total) | 47.46 | 47.59 | 47.72 | 47.87 | 48.01 | 48.14 |
| Isc/A(Total) | 15.87 | 15.96 | 16.05 | 16.13 | 16.23 | 16.32 |

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

| Typical type | 520W | 525W | 530W | 535W | 540W | 545W |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Max power(Pmax) | 392.4 | 396.3 | 400.2 | 404.1 | 408.1 | 411.9 |
| Max power voltage(Vmp) | 37.3 | 37.4 | 37.6 | 37.7 | 37.9 | 38 |
| Max power current(Imp) | 10.53 | 10.6 | 10.66 | 10.72 | 10.78 | 10.84 |
| Open circuit voltage(Voc) | 44.8 | 45 | 45.1 | 45.2 | 45.4 | 45.5 |
| Short circuit current(Isc) | 11.12 | 11.19 | 11.25 | 11.31 | 11.37 | 11.44 |

DIMENSIONS AND STRUCTURE



Mechanical Data

| | |
|-----------------|---|
| Dimensions | 2145x1134x35mm |
| Weight | 29.8kg |
| Glass | (F)2.0mm ultra clear embossed double layer colorless glass (B)2.0mm white mesh glazed tempered glass |
| Output cables | 4mm ² , symmetrical lengths 1300mm |
| Connectors | MC4 compatible IP68 |
| Cell type | N type Mono-Crystalline, 182mm×93.4mm |
| Number of cells | 132 cells (Half-Cell) |

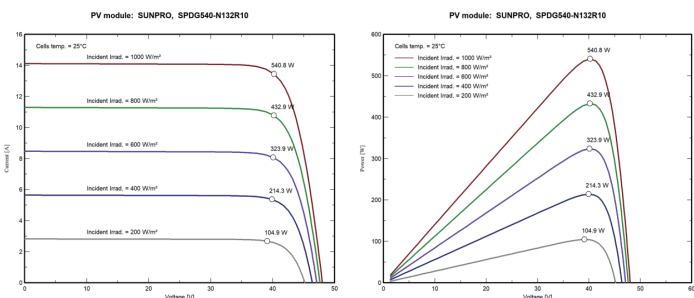
Temperature Characteristics

| | |
|-----------------------------------|-----------|
| Temp.Coeff.of Isc(TK Isc) | 0.046%/°C |
| Temp.Coeff.of Voc(TK Voc) | -0.25%/°C |
| Temp.Coeff.of Pmax(TK Pmax) | -0.30%/°C |
| Operating temperature | -40~+85°C |
| Normal operating cell temperature | 45±2°C |

Packing Configuration

| | |
|-----------------------|-------|
| Container | 40'HQ |
| Pieces per pallet | 31 |
| Pallets per container | 22 |
| Pieces per container | 682 |

I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



Tests, Certifications and Warranties

| | |
|-------------------------------------|---|
| Standard tests | IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042 |
| System certs | ISO 9001, ISO14001, ISO45001 |
| Certifications | TÜV, CE, WEEE |
| Extreme wind and snow loads testing | Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal) |
| Power tolerance | 0~+5W |
| Junction box | IP 68 |
| Warranties | 25 years product warranty and 30 years 87.4% of power |