

SG-54TG4D 500-520W

N-type TOPCon Solar Double Glass Bifacial Module
Maximum Efficiency 23.4%

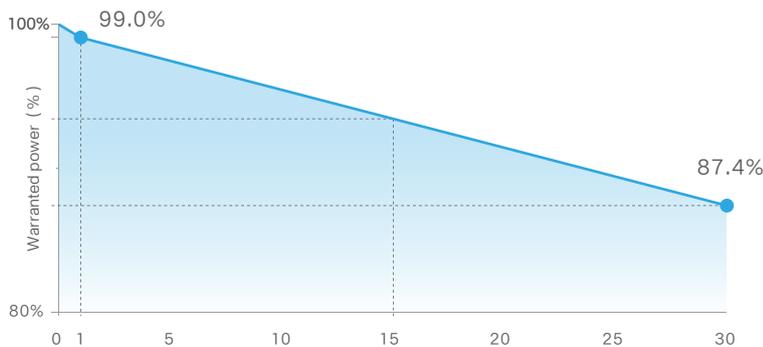


Quality Certification

- IEC61215:2021 / IEC61730:2023
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems



Product Warranty



25 Year

Warranty for Materials and Processing

30 Year

Warranty for Extra Linear Power Output

First Year Power Degradation <1%

Year 2-30 Power Degradation <0.4%

Product Performance



Higher Efficiency

Excellent MBB technology and leading process technology, conversion efficiency up to 23.4%



Smaller Size

A lightweight design for convenient transportation and installation



Higher Bifacial Factor

The rear power output and generation capacity are 20% and 3.5% higher than P-type, respectively



Superior Temperature Coefficient

Generating 1%-2% more power than P-type modules in high temperature regions



Anti-PID Guarantee

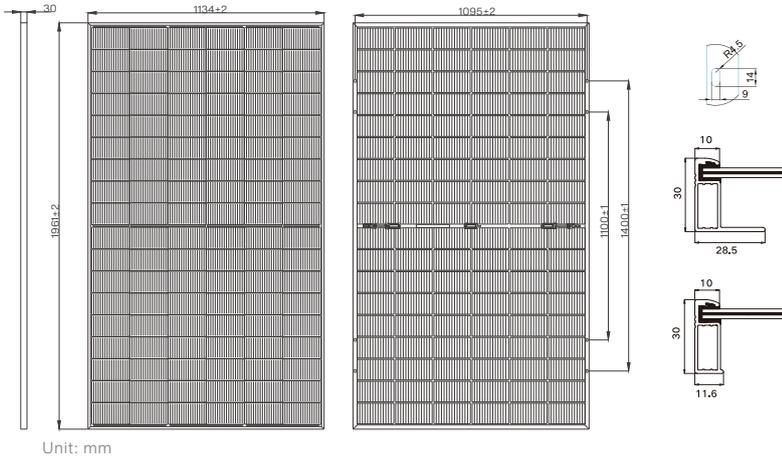
Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control



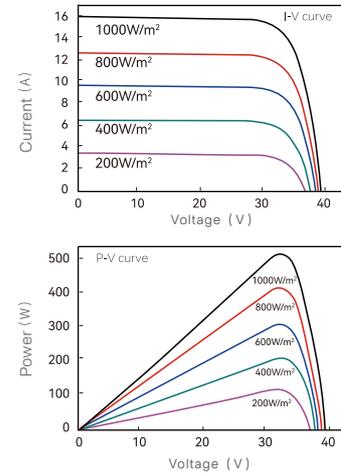
Superior Mechanical Load Capacity

Heavy snow load up to 5400 Pa
wind load up to 2400 Pa

Engineering Drawings



I-V and P-V Curves



Specifications (STC)

| | | | | | |
|----------------------------------|---------|-------|------------------------|---------------|-------|
| Maximum Power Pmax (W) | 500 | 505 | 510 | 515 | 520 |
| Voltage at Maximum Power (Vmp/V) | 33.70 | 33.94 | 34.19 | 34.43 | 34.67 |
| Current at Maximum Power (Imp/A) | 14.84 | 14.88 | 14.92 | 14.96 | 15.00 |
| Open Circuit Voltage (Voc/V) | 40.06 | 40.24 | 40.42 | 40.60 | 40.78 |
| Short Circuit Current (Isc/A) | 15.89 | 15.92 | 15.95 | 15.98 | 16.01 |
| Module Efficiency (%) | 22.5 | 22.7 | 22.9 | 23.2 | 23.4 |
| Power Tolerance | 0 ~ +3% | | Maximum System Voltage | DC1500V | |
| Maximum Series Fuse Rating | 30A | | Operating Temperature | -40°C ~ +70°C | |
| Bifacial Factor | 80±5% | | | | |

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Specifications (BNPI)

| | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power Pmax (W) | 550 | 556 | 561 | 567 | 572 |
| Voltage at Maximum Power (Vmp/V) | 33.70 | 33.94 | 34.19 | 34.43 | 34.67 |
| Current at Maximum Power (Imp/A) | 16.32 | 16.37 | 16.41 | 16.46 | 16.50 |
| Open Circuit Voltage (Voc/V) | 40.06 | 40.24 | 40.42 | 40.60 | 40.78 |
| Short Circuit Current (Isc/A) | 17.48 | 17.51 | 17.55 | 17.58 | 17.61 |

BNPI: Irradiance Front 1000W/m², Rear 135W/m², Cell Temperature 25°C, AM=1.5

Mechanical Characteristics

| | |
|------------------|--|
| Cell Type | N- type mono-crystalline |
| Cell Orientation | 108 (2 x 54) |
| Dimension | 1961 x 1134 x 30mm |
| Weight | 26.5kg |
| Glass | Dual glass, 2.0mm+2.0mm semi-tempered glass |
| Frame | Anodized aluminum alloy |
| Junction Box | IP68 rated |
| Output Cables | 4mm ² , (+): 1200mm, (-): 1200mm or customized length |
| Connector Type | MC4-EVO2A/others |
| Mechanical Load | 5400Pa (Front side) /2400Pa (Rear side) |

Temperature Characteristics

| | |
|----------------------------------|-----------|
| Temperature Coefficients of Pmax | -0.29%/°C |
| Temperature Coefficients of Voc | -0.25%/°C |
| Temperature Coefficients of Isc | 0.045%/°C |

Packaging Configuration

| | |
|----------------|---|
| Packing Detail | 36 pcs/pallets, 72 pcs/stack, 864 pcs/ 40'HQ container |
|----------------|---|

SUNGROW

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*Specifications included in this datasheet are subject to change without notice. Sungrow Renewables reserves the right of final interpretation.