

# SG-54TG4D

## 505-525W

N-type TOPCon Solar Double Glass Bifacial Module

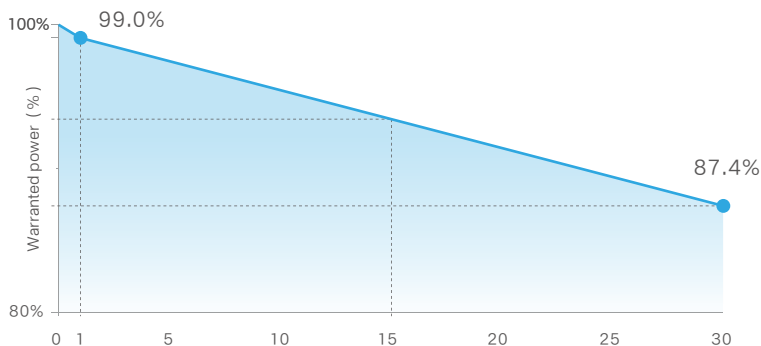
Maximum Efficiency 23.6%

### 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 23.6%



#### 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

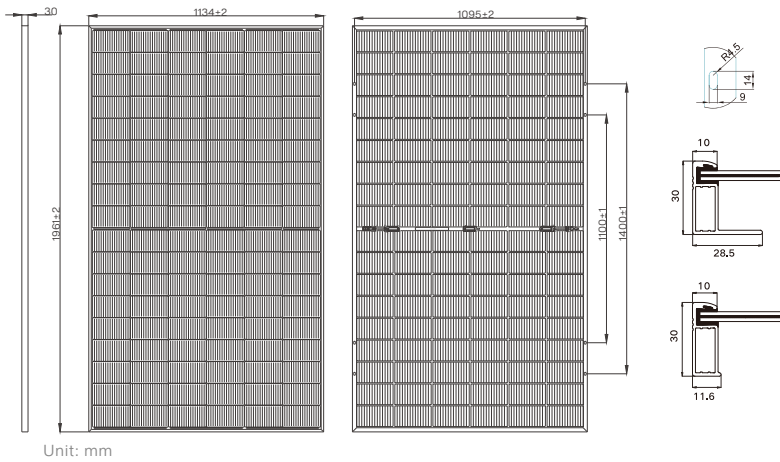
Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control



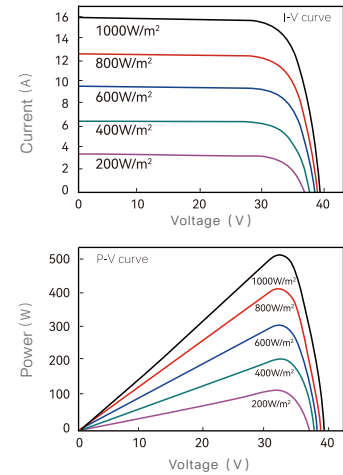
#### Superior Mechanical Load Capacity

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)           | 505     | 510   | 515                    | 520   | 525           |
| Voltage at Maximum Power (Vmp/V) | 33.94   | 34.19 | 34.43                  | 34.67 | 34.91         |
| Current at Maximum Power (Imp/A) | 14.88   | 14.92 | 14.96                  | 15.00 | 15.04         |
| Open Circuit Voltage (Voc/V)     | 40.24   | 40.42 | 40.60                  | 40.78 | 40.96         |
| Short Circuit Current (Isc/A)    | 15.92   | 15.95 | 15.98                  | 16.01 | 16.04         |
| Module Efficiency (%)            | 22.7    | 22.9  | 23.2                   | 23.4  | 23.6          |
| 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)           | 556   | 561   | 567   | 572   | 578   |
| Voltage at Maximum Power (Vmp/V) | 33.94 | 34.19 | 34.43 | 34.67 | 34.91 |
| Current at Maximum Power (Imp/A) | 16.37 | 16.41 | 16.46 | 16.50 | 16.54 |
| Open Circuit Voltage (Voc/V)     | 40.24 | 40.42 | 40.60 | 40.78 | 40.96 |
| Short Circuit Current (Isc/A)    | 17.51 | 17.55 | 17.58 | 17.61 | 17.64 |

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    | 4mm², (+): 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.