

SG-54TG4D-X

515-540W

Maximum Efficiency **24.3%**

**Smart Functions**

**Module-Level Monitoring**

iSolarCloud Storage & Data Visualization

**Rapid Shutdown**

With a Shutdown Time  $\leq 25s$

**Smart Pathfinding**

Fault Localization & Precision Bypass

**Arc Fault Response**

Anomaly Detection & Automatic Shutdown

**Product Warranty**

**25** Year

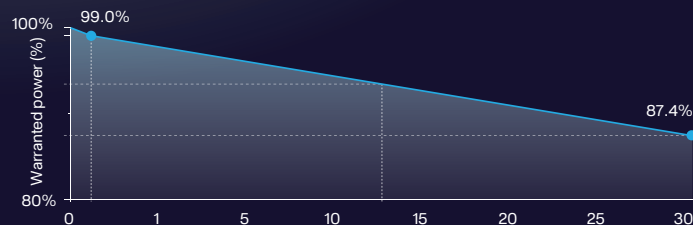
Warranty for Materials and Processing

**30** Year

Warranty for Extra Linear Power Output

First Year Power Degradation **<1%**

Year 2-30 Power Degradation **<0.4%**

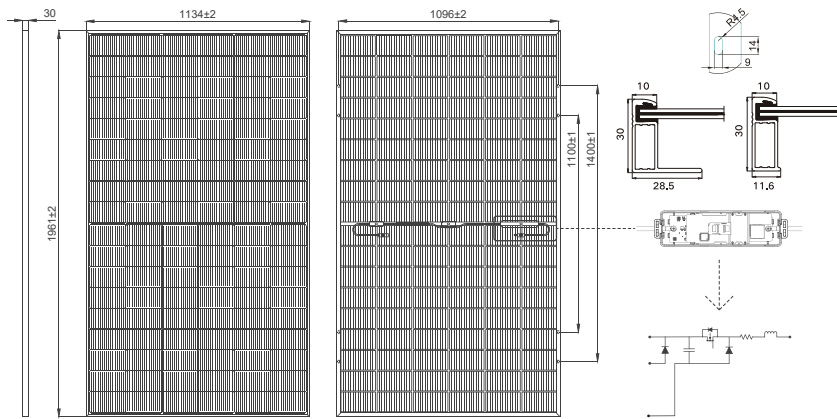


**Quality Certification**



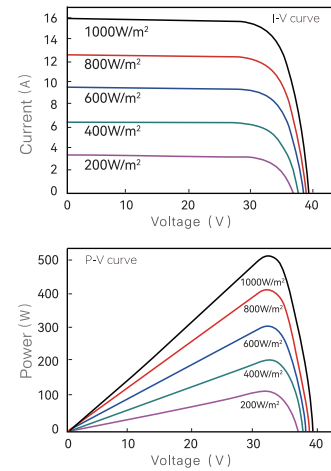
- IEC61215:2021 / IEC61730:2023
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems

## Engineering Drawings



Unit: mm

## I-V and P-V Curves



## Specifications (STC)

|                                  |       |                        |       |       |             |       |
|----------------------------------|-------|------------------------|-------|-------|-------------|-------|
| Maximum Power Pmax (W)           | 515   | 520                    | 525   | 530   | 535         | 540   |
| Voltage at Maximum Power (Vmp/V) | 34.43 | 34.67                  | 34.91 | 35.15 | 35.39       | 35.63 |
| Current at Maximum Power (Imp/A) | 14.96 | 15.00                  | 15.04 | 15.08 | 15.12       | 15.16 |
| Open Circuit Voltage (Voc/V)     | 40.60 | 40.78                  | 40.96 | 41.14 | 41.32       | 41.50 |
| Short Circuit Current (Isc/A)    | 15.98 | 16.01                  | 16.04 | 16.07 | 16.10       | 16.13 |
| Module Efficiency (%)            | 23.2  | 23.4                   | 23.6  | 23.8  | 24.1        | 24.3  |
| 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)           | 567   | 572   | 578   | 583   | 589   | 594   |
| Voltage at Maximum Power (Vmp/V) | 34.43 | 34.67 | 34.91 | 35.15 | 35.39 | 35.63 |
| Current at Maximum Power (Imp/A) | 16.46 | 16.50 | 16.54 | 16.59 | 16.63 | 16.68 |
| Open Circuit Voltage (Voc/V)     | 40.60 | 40.78 | 40.96 | 41.14 | 41.32 | 41.50 |
| Short Circuit Current (Isc/A)    | 17.58 | 17.61 | 17.64 | 17.68 | 17.71 | 17.74 |

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 (2×54)   |
| Dimension        | 1961×1134×30mm                                       |
| Weight           | 26.5kg   |
| Front Glass      | 2.0mm, Anti-reflection Coating                       |
| Back Glass       | 2.0mm, Heat Strengthened Glass                       |
| Frame            | Anodized aluminum alloy                              |
| Junction Box     | IP68 rated   |
| Output Cables    | 4mm², (+) : 1200mm, (-) : 1200mm or customize 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 |
|----------------|--|

## RSD Parameters

|                                |        |
|--------------------------------|--------|
| Shutdown Output Voltage        | 1±0.1V |
| Output Bypass                  | Yes    |
| Rapid Shutdown Time            | ≤25s   |
| Maximum Input Voltage          | 60V    |
| Maximum System Voltage         | 1500V  |
| Communication Method           | PLC    |
| Maximum Communication Distance | ≤450m  |