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# Solar Panel Guide

# Specification Data Sheet

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东莞南玻光伏科技有限公司
CSG PVTECH CO. .LTD

CSGaaaM2-36（aaa=155W-180W）

PV Chain

Over 30 years manufacturing experience, the complete PV chain including silicon materials, wafer, solar glass,solar cell, solar module and solar project, and IS09001 &ISO14001 certified factory, ensure excellent raw materials and production control.

TUV

Solar modules certified by TUV Rheinland (IEC61215& IEC61730) in the extreme conditions (Temperature, load, impact) with good performance.

Weak Light

The good weak light performance (morning, evening and cloudy days) has been tested and approved by professional third-party.

0 /+6W

Guarantee from 0 to +6W as power tolerance, customer can obtain 5.8% power more than conventional output.

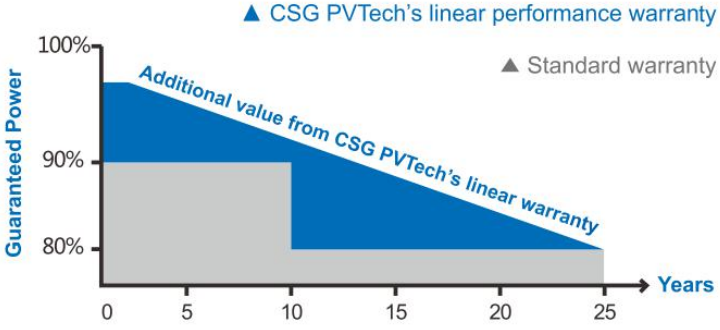
100%

100% EL test before and after lamination, and finished products EL test, providing higher quality assurance.



## High Efficiency

## Poly-Crystalline Solar Module




Warranty：For a period of 25 years commencing on the warranty start date, loss of power output of the nominal power output measured at STC for the products shall not exceed:

1. For polycrystalline products: 2.5% in first year, therefore 0.7% per year, ending with 80.7% in the 25th year.

2. For monocrystalline products:3% in first year, therefore 0.708% per year, ending with 80% in the 25th year.

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## Typical Electrical Characteristics

| Solar Cell: | Poly Crystalline 156.75×156.75mm<br>36 Cell (4×9) —— 5BB Solar Cell | | | | | |
|---|---|---|---|---|---|---|
| Max Power | 155 | 160 | 165 | 170 | 175 | 180 |
| Power Tolerance | 0 to +6W | | | | | |
| Voltage at Pmax (Vmp) | 18.6 | 18.8 | 19 | 19.2 | 19.4 | 19.6 |
| Current at Pmax (Imp) | 8.34 | 8.51 | 8.69 | 8.86 | 9.02 | 9.19 |
| Open-circuit Current(Voc) | 22.7 | 22.9 | 23.1 | 23.4 | 23.6 | 23.8 |
| Short-circuit Current (Isc) | 9.02 | 9.21 | 9.41 | 9.59 | 9.73 | 9.93 |
| Max Syst en Voltage(VDC) | 1000V(IEC), 600V(UL) | | | | | |
| Module Efficiency（%） | 15.5 | 16 | 16.5 | 17 | 17.5 | 18 |
| No. Of Bypass Diodes (pcs) | 3 | | | | | |
| Max Series Fuse (A) | 15A | | | | | |
| Temperature Coefficient at Pmax | -0.43%/℃ | | | | | |
| Temperature Coefficient at Voc | -0.32%/℃ | | | | | |
| Temperature Coefficient at Isc | 0.04%/℃ | | | | | |
| NOCT | 45±2 ℃ | | | | | |

STC Conditions（1000W/m$^2$; 1.5AM and 25℃ Cell Temperature）

| | |
|---|---|
| Cable Type, diameter, Length | Φ=4mm$^2$, L=900±5mm |
| Type of Connector | Compatible type MC4 |
| Dimension A×B×C | 1482*674*35 mm |
| Weight | 11.5kg |
| No. Of Draining Holes in Frame | 16 |
| Construction | Glass: High Transmission, Low Iron, Tempered Glass 3.2mm<br>Encapsulation: EVA Backsheet: Fluorinated, white |
| Junction box | IP68 Rated |
| Frame | Clear anodized aluminum alloy Type 6063T5 frame |

## Mechanical Characteristics

| | |
|---|---|
| Dielectric Insulation Voltage | 6000VDC max |
| Operating Temperature | -40℃～+85℃ |
| Max Load | 5400Pa |
| Hailstone Impact | 25mm (1inch) at 23m/s (52mph) |
| Fire Rating | Class C |

## Packing

| | |
|---|---|
| Packing Configuration | 30pcs/ carton, 2pcs/carton |
| Loading Capacity | 1260pcs/40HQ 432pcs/20GP |