

CSG PVTECH CO.,LTD.



Several decades of experience in manufacturing, the complete PV chain including silicon materials, ingot, wafer, solar glass, solar cell and module, and ISO90001 & ISO14001 certified factory, ensure excellent raw materials and production control.



Modules certified by TUV Rheinland (IEC61215, IEC 61730 standards) in the extreme conditions (temperature, load, impact) with good performance. Pass strict tests of solar modules including Salt-mist Corrosion Test, Fire Test, Ammonia Resistance Test, PID Test, Sand Abrasion Test and Carbon Footprint Assessment in TUV.



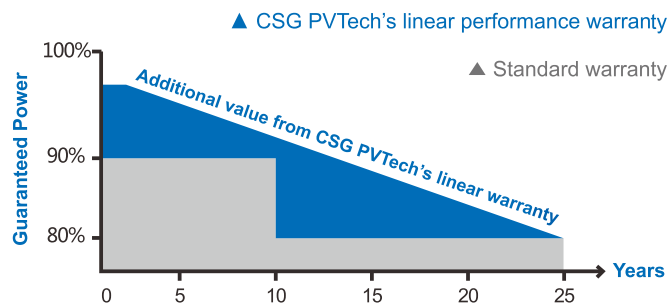
The good weak light performance (morning, evening and cloudy day) has been tested and approved by professional third-party.



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



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



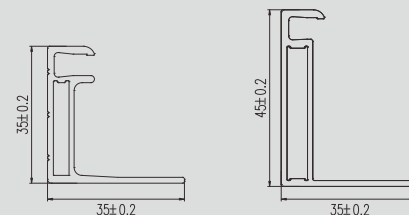
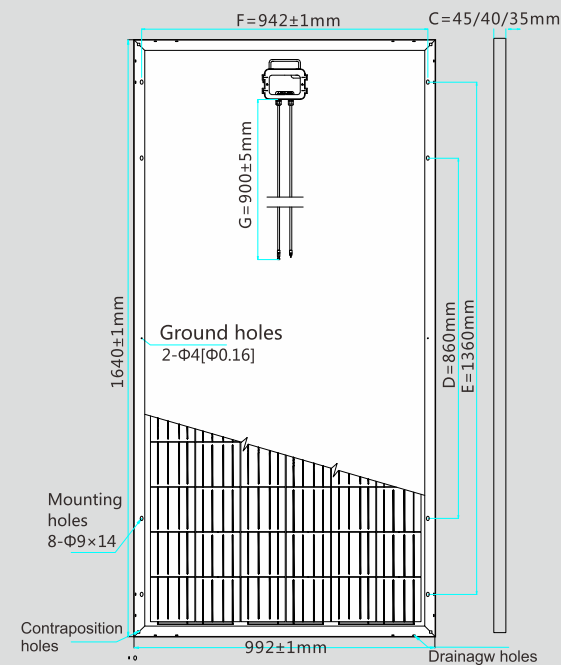
For a period of twenty-five (25)years commencing on the Warranty Start Date, loss of power output of the nominal power output measured at Standard Test Conditions (STC) for the Product(s) shall not exceed:

1. For Polycrystalline Products: 2.5% in the first year, thereafter 0.7% per year, ending with 80.7% in the 25th year after the Warranty Start Date.
2. For Monocrystalline Products: 3 % in the first year, thereafter 0.708% per year, ending with 80.008% in the 25th year after the Warranty Start Date.

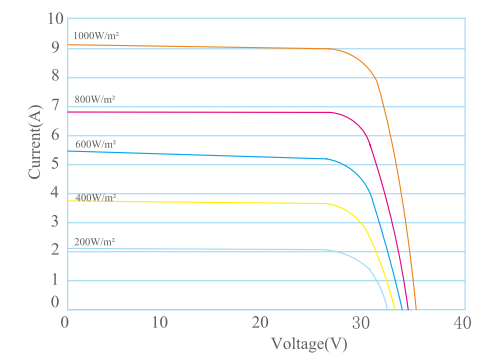
(4BB)



High Efficiency Poly-crystalline Solar Module



I-V Curves



I-V Curves of PV module CSG 250W at different light power

Typical Electrical Characteristics

Poly-Crystalline 156X156mm 60pcs (6×10) — 4 bus bars	
Max-power	250 255 260 265 270 275 280
Power Tolerance	0 to +6W
Voltage at Pmax (Vmp)	30.9 31.1 31.3 31.5 31.7 31.9 32.1
Current at Pmax (Imp)	8.09 8.20 8.31 8.41 8.52 8.62 8.73
Open-Circuit Voltage (Voc)	37.7 37.9 38.2 38.4 38.7 38.9 39.1
Short-Circuit Current (Isc)	8.76 8.87 8.99 9.10 9.22 9.33 9.45
Max-System Voltage (VDC)	1000V(IEC), 600V(UL)
Cell Efficiency	17.3 17.6 17.9 18.2 18.5 18.8 19.0
Module Efficiency	15.4 15.7 16.0 16.3 16.6 16.9 17.2
No. of Bypass Diodes (pcs.)	3
Max. Series Fuse (A)	15A
Temperature Coefficient of Pmax	-0.45%/°C
Temperature Coefficient of Voc	-0.34%/°C
Temperature Coefficient of Isc	0.05%/°C
Nominal Operating Cell Temperature	45±2 °C

***STC Conditions** (1000W/m²; 1.5 AM and 25°C Cell temperature)

Mechanical Characteristics

Cable type, Diameter and Length	Φ=4mm ² , L=900±5mm
Type of Connector	Compatible type MC4
Dimension A×B×C	1640×992×45/40/35mm
Weight	18.3/18.0/17.7kg
No. of Draining Holes In Frame	16
Construction	Glass: High Transmission, Low Iron, Tempered Glass 3.2mm Encapsulation: EVA Back side: White
Junction Box	IP67 Rated
Frame	Clear anodized aluminum alloy type 6063T5 frame

Qualification Test Parameters

Dielectric Insulation Voltage	6000VDC max
Operating Temperature	-40°C ~ +85°C
Max load	5400Pa
Hailstone impact	25mm (1inch) at 23m/s (52mph)
Fire rating	Class C

Packaging Configuration 1640×992×45mm

Packaging Configuration	22pcs/box and 2pcs/box
Loading Capacity	672pcs/40HQ 240pcs/20GP

Packaging Configuration 1640×992×35mm

Packaging Configuration	27pcs/box and 2pcs/box
Loading Capacity	812pcs/40HQ 282pcs/20GP