



High Efficiency Polycrystalline Photovoltaic Module

Overview

- High efficiency solar cells with quality silicon material for high module conversion efficiency and long term output stability and reliability.
- Positive power output tolerance from 0% to +3%.
- Rigorous quality control to meet the highest international standards.
- High transmittance, low iron tempered glass with enhanced stiffness and impact resistance.
- Unique frame design with strong mechanical strength for up to 50 lbs/ft² wind load and snow load withstanding and easy installation.
- Advanced encapsulation material with multilayer sheet lamination to provide long-life and enhanced cell performance.
- Outstanding electrical performance under high temperature and weak light environments.
- Built in blocking diodes prevent reverse current flow.



Applications

- Emergency Backup, RVs, Pumps, Gates, Electric Fences, Lighting, 12 Volt Battery Charging and much more.

Warranty

- 5 year limited product warranty on materials and workmanship.
- 25 year warranty on >80% power output and 10 year warranty on >90% power output.
- Refer to warranty document for detailed warranty information.

Certifications

IEC61215 IEC61730

Mechanical Specifications:

(note: module dimensions may have +/- 1% variance)

Characteristic	Details
Cell Size	156mm x 156mm (6" x 6")
Module Dimension (L x W x T)	665mm x 620mm x 35mm (26.18" x 24.4" x 1.37")
No. of Cells	4 x 9 = 36
Weight	4.8 kg (10.58 lbs)
Cable Length	900mm (35.4") for positive (+) and negative (-)
Type of Connector	MC-IV comparable
Junction Box	IP65 Rated
No. of Holes in Frame	4 installation holes

MODEL: GS-STAR-50W

Electrical Specifications

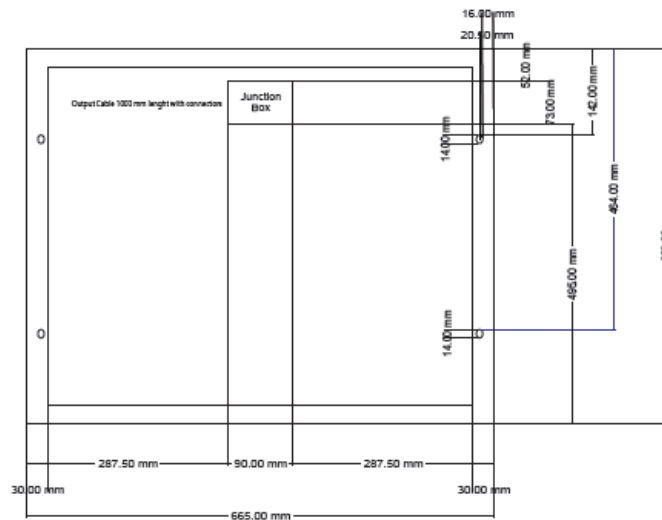
(STC* = 25 °C, 1000W/m² Irradiance and AM=1.5)

Model	GS-STAR-50W
Maximum Power P _{max}	50 W* (0%, +3%)
Cell type	Poly silicon
Voltage at Maximum Power Point V _{mpp}	17.5 V
Current at Maximum Power Point I _{mpp}	2.86 A
Open Circuit Voltage V _{oc}	22.0 V
Short Circuit Current I _{sc}	3.17 A
Module Efficiency (%)	12.5%
Temperature Coefficient of V _{oc}	-0.37% /°C
Temperature Coefficient of I _{sc}	+0.035% /°C
Temperature Coefficient of P _{max}	-0.50% /°C

*Standard Test Conditions

Physical Specifications mm

(note: dimensions may have a +/- 1% variance)



Other Performance Data

Power Tolerance	Operating Temperature	Max Series Fuse Rating	NOCT*
0%, +3%	-40 °C to +85 °C	10A	45 +/-2°C

*Normal Operating Cell Temperature

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