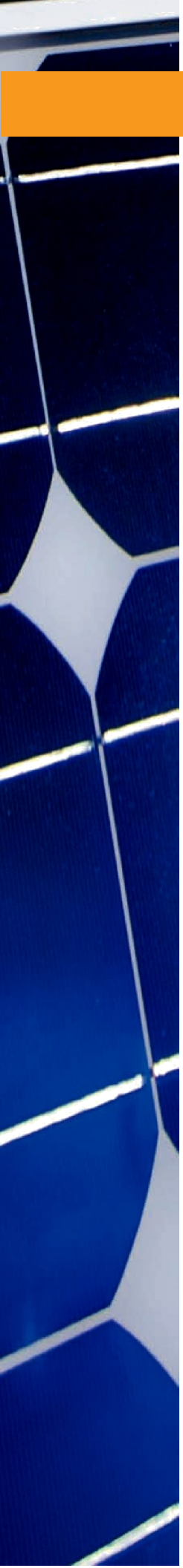


MODEL: GS-STAR-50W

High Efficiency Polycrystalline Photovoltaic Module

Grape Solar®
Clean Power. Today.

Overview

- High efficiency solar cells (18.2 %) 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 greater than 50 lbs/ft^2 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.

Applications

- Any large or small on-grid /off-grid solar power stations.
- Commercial/industrial building roof-top and ground systems.
- Residential roof-top and ground systems.

Warranty

- 10 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

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 for positive (+) and negative (-)
Type of Connector	MC-IV
Junction Box	IP65 Rated
No. of Holes in Frame	4 installation holes

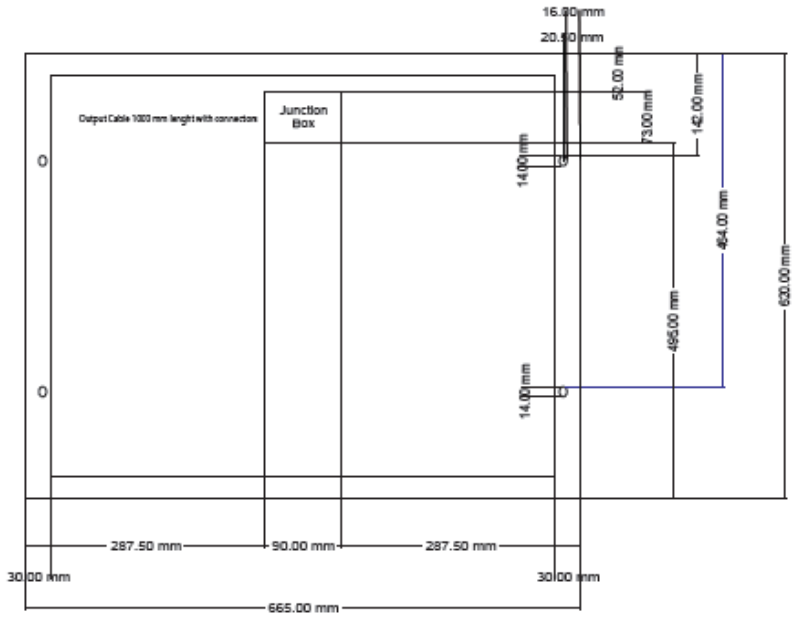
MODEL: GS-STAR-50W

Electrical Specifications
(STC* = 25 ºC, 1000W/m^2 Irradiance and AM=1.5)

Model	GS-STAR-50W
Max System Voltage (IEC/UL)	1000V
Maximum Power P_{max}	50 W (0%, +3%)
Listed PTC Power	50 W
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 (%)	12.2%
Temperature Coefficient of V_{oc}	-0.37% /ºC
Temperature Coefficient of I_{sc}	+0.035% /ºC
Temperature Coefficient of P_{max}	-0.50% /ºC

*Standard Test Conditions

Physical Specifications mm



Other Performance Data

Power Tolerance	Operating Temperature	Max Series Fuse Rating	NOCT*
0%, +3%	-40 ºC to +85 ºC	15A	45 +/-2ºC

*Normal Operating Cell Temperature

www.GrapeSolar.com

For service or support call

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