



**Monocrystalline  
Photovoltaic Module**



**Overview**

- High efficiency solar cells (approx. 19%) with quality silicon material for high module conversion efficiency and long term output stability and reliability..
- 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<sup>2</sup> 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**

- 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**

CE TUV IEC61215 IEC61730



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

Characteristic	Details
Cell Size	156mm x 156mm (6.14" x 6.14")
Module Dimension (L x W x T)	1474mm x 660mm x 35mm (58.0" x 26.0" x 1.38")
No. of Cells	4 x 9 = 36
Weight	12 kg (26.4 lbs)
Cable Length	900mm for positive (+) and negative (-)
Type of Connector	MC-IV compatible
Junction Box	IP65 Rated
No. of Holes in Frame	8 installation holes, 8 drainage holes, 2 grounding

# MODEL: GS-S-160-Fab8

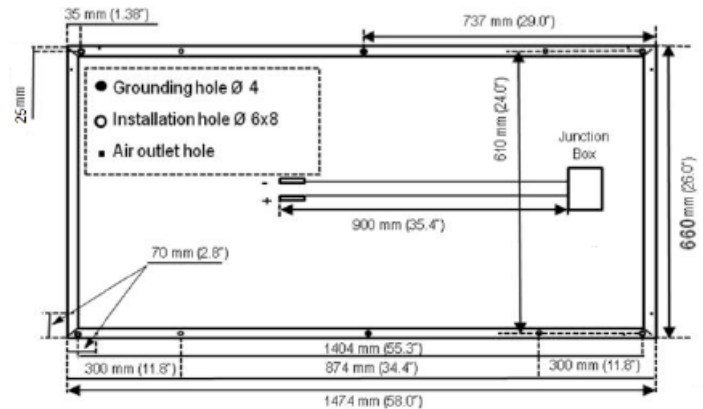
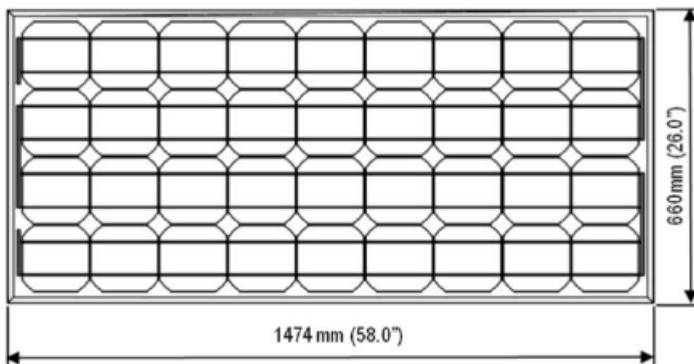
## Electrical Specifications

(STC\* = 25 °C, 1000W/m<sup>2</sup> Irradiance and AM=1.5)

Model	GS-S-160-Fab8
Maximum Power P <sub>max</sub>	160 W (-5%, +5%)
Voltage at Maximum Power Point V <sub>mpp</sub>	18.5 V
Current at Maximum Power Point I <sub>mpp</sub>	8.65 A
Open Circuit Voltage V <sub>oc</sub>	22.2 V
Short Circuit Current I <sub>sc</sub>	9.46 A
Module Efficiency (%)	16.4%
Temperature Coefficient of V <sub>oc</sub>	-0.38% /°C
Temperature Coefficient of I <sub>sc</sub>	+0.05% /°C
Temperature Coefficient of P <sub>max</sub>	-0.50% /°C

\*Standard Test Conditions

## Physical Specifications mm



## Other Performance Data

Power Tolerance	Operating Temperature	Max Series Fuse Rating	NOCT*
-5%, +5%	-40 °C to +85 °C	15A	45 °C

\*Normal Operating Cell Temperature

[www.GrapeSolar.com](http://www.GrapeSolar.com)

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