

TITAN S6-60 Crystalline Solar Modules



Technology

TITAN S6-60 crystalline solar modules are powered by High Efficiency Mono Crystalline cells manufactured by Suniva, USA. The modules provide excellent value and performance for operation of both DC loads and in an inverter equipped system for AC Loads.

The rated output and the efficient design of these modules, with their large surface area are ideally suited for high power applications, like Grid Interactive Systems.

The module is designed for easy interconnection to achieve voltage and current configurations for grid-connected systems as well as stand-alone systems.

Module design

High-efficiency 6 inch (156mm) Single crystalline solar cells form the crux of the module. These 156 mm full square cells offer a homogeneous appearance, optimal use of the area and are known for high energy yields.

Due to its construction of Glass/EVA/Tedlar, the module is light in weight in addition to protecting the module/cells against harsh environmental conditions.

A torsion resistant module frame made of anodized aluminum guarantees high mechanical strength, making the module resistant to extreme wind, hail and snow.

Quality

TITAN modules are manufactured at State-of art, automated manufacturing facilities, to meet high internal quality standards established since the inception in 1995. Constant checks and inspections guarantee consistent quality. Each module which leaves the production line is subjected to thorough visual inspections as well as mechanical and electrical tests, as per leading international testing and quality standards.

Certifications

TITAN S6-60 modules are certified by TÜV Rheinland, Germany to the new, stringent CEI/IEC 61215: 2005 standard and also conform to the requirements of IEC 61730-2, Safety Class II for 1000 VDC applications, and EWG guideline 89/932 (CE). Besides TITAN has a quality management system that is in compliance with the International Quality System Standard ISO 9001– 2000.

Features

1. Modules assembled using high quality and performance components sourced from leading International Suppliers.
2. State-of-art, automated manufacturing facilities guarantee consistent High Quality & Electrical performance.
3. Positive power tolerance (-0% / + 2.5%) ensures extra power always to the customer.
4. Certified by TÜV Rheinland, Germany as per International Standards (IEC 61215: 2005, IEC 61730-2 and Safety Class II for 1000VDC) for High Performance and Safety.
5. Industry leading 25 year Guarantee : 5 years with 100% product guarantee; 12 years guarantee at 90% rated performance and 25 years guarantee at 80% rated performance.



Electrical Data (nominal)

The electrical data apply to standard test conditions (STC):
Irradiance at the module level of 1000 W/m² with spectrum AM 1.5G and a cell temperature of 25°C.

Power Classification (max.)	Pmax (W)	230	240
Voltage at max. power point	Vmp(V)	28.99	29.17
Current at max. power point	Imp(A)	8.04	8.23
Open-circuit voltage	Voc(V)	37.38	37.68
Short circuit current	Isc(A)	8.50	8.57

The rated power may only vary by -0% / +2.5% and all other electrical parameters by ± 5%.

Dimensions and weights

	TITAN S6-60
Cells / Module	60
Module Dimensions (mm)	1660 x 990
Module Thickness (mm)	42
Approximate Weight (Kg)	18.50

Characteristic Data

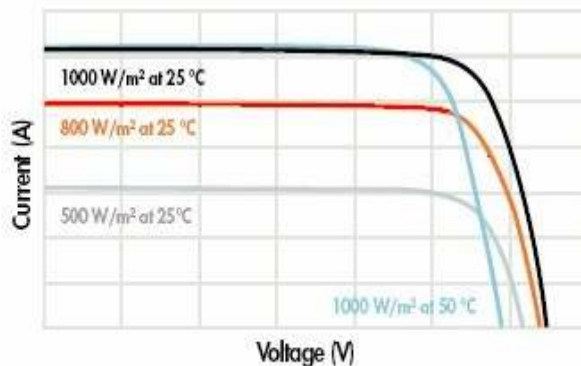
Type of Solar Cell	High Efficiency Single Crystalline cells of 156x156mm
Frame	Silver Anodized Aluminum Alloy
Glass	3.2mm tempered
Connection	IP65 Junction Box with 4 terminals
Cable Entry	Prepared for cable glands (M 12)
Connections (Optional)	4mm ² -Lapp-cable with MC / Tyco Connectors

Cell temperature coefficients

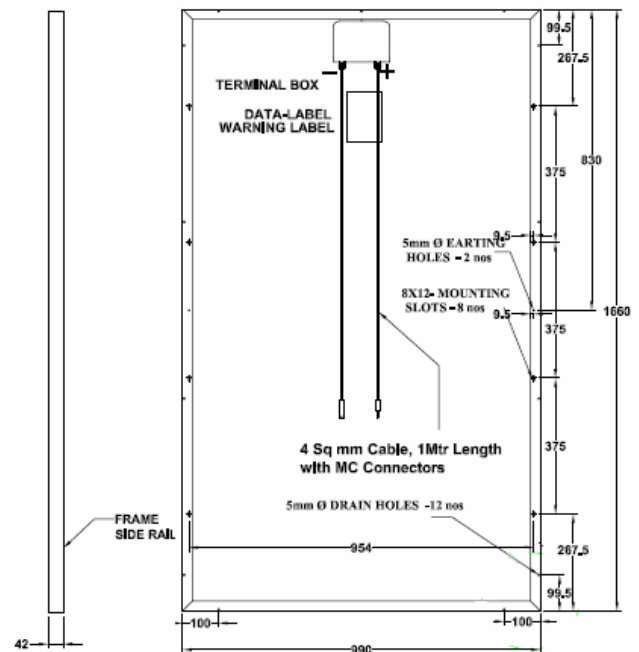
Voltage	β (Uoc)	-2.1mV/°C
Current	α (Isc)	2.5mA/°C
Power	γ (Pmax)	-0.4%/°C

Limits

Max. System Voltage	1000 VDC (IEC), 600 VDC (UL)
Operating Module Temperature	-40 °C to +90 °C
Storm Resistance	Wind speed of 130Km/h and safety factor of 3



Current/voltage dependence on irradiance and module temperature.
This is only indicative showing effect of temperature and intensity on power



**In view of the continuous improvement, Titan reserves to change the data at any point of time.

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