



# Photovoltaic Modules

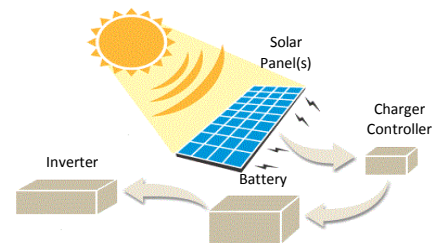


Specification Sheet

Models :  
S-300-72-1  
S-305-72-1  
S-310-72-1  
S-315-72-1  
S-320-72-1

Modules Rating : 300, 305, 310, 315, 320, Watt  
Anodized Aluminum Frame  
Weather Resistant Junction Box IP67  
High Efficiency Crystalline Silicon Solar Cell  
Built-in Bypass Diodes in Junction Box  
Standard IEC 61215, IEC 61730  
TIS 1843-2553, TIS 2580-2555  
ISO 9001:2015, ISO 14001:2015,  
OHSAS 18001:2007 TIS 18001:2011

25 Years Limited Warranty



Spot solar modules are made with high efficiency Poly Crystalline solar cell and iselectrically matched to minimize losses, for making modules suitablefor commercial as well as domestic application. Spot solar modules have been tested for grid connected as well as stand - alone systems offering high performance and reliability. The solar photovoltaic module is manufactured with crystalline solar cell conforming to the strict requirements to international quality standards.

The strings laminated between sheets of ethyl vinyl acetate (EVA) and backsheet.

For moisture free protection, UV stability and electrical isolation material are used. Low iron and high transitivity glass is used for strength and high power output.

A high quality backsheet (TPT) Provides mechanical protection and electrical insulation up to 1,000 Volt.

Each raw material such as EVA, glass and backsheet is procured from the most reliable and proven sources.

The laminate are framed with a strong, robust and corrosion resistant aluminum frame with multiple mounting holes for ease of installation as customer's requirement.

Village Power  
Electric Fence Charging  
Telecommunications  
Solar Home System

Recreational  
Telemetry  
Traffic Control Signals  
Water Pumping

Security Lighting  
Battery Maintenance  
Outdoor Lighting  
Solar Grid System

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## Electrical Properties at Standard Test Condition (STC)

PV Module Model	S-300-72-1	S-305-72-1	S-310-72-1	S-315-72-1	S-320-72-1
Rated Maximum Power (Pmax)	300 W	305 W	310 W	315 W	320 W
Tolerance of Maximum Power	± 5%	± 5%	± 5%	± 5%	± 5%
Open Circuit Voltage (Voc)	45.2 V	45.5 V	45.7 V	45.9 V	45.9 V
Short Circuit Current (Isc)	8.74 A	8.81 V	8.85 A	8.89 A	9.09 A
Voltage at Pmax (Vmp)	36.5 V	36.8 V	36.8 V	37.2 V	37.3 V
Current at Pmax (Imp)	8.22 A	8.29 A	8.29 A	8.40 A	8.58 A
Efficiency of Module	15.46%	15.72%	15.98%	16.23%	16.50%

## Temperature Properties

Voltage Temperature Coefficient	-0.33%/°C
Current Temperature Coefficient	0.05%/°C
Power Temperature Coefficient	-0.39%/°C

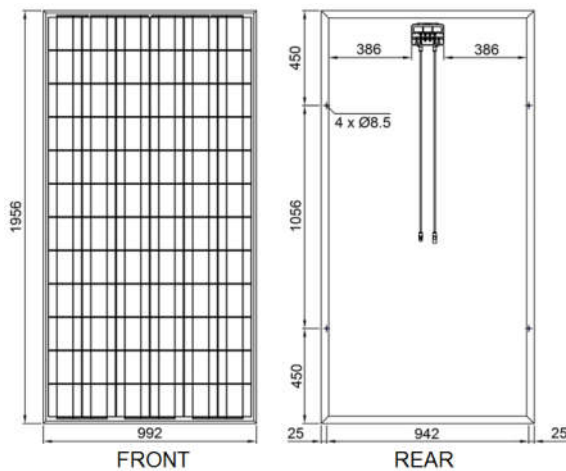
## Maximum Use Rate

Maximum System Voltage	1000 V
Maximum Series Fuse	15 A

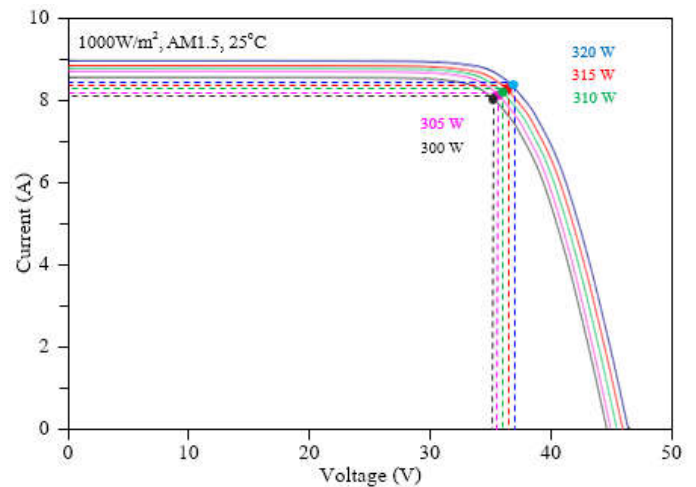
## Mechanical Properties

Dimension	1956 x 992 x 35 mm.
Weight	21.2 Kg.
Frame	Anodized Aluminum Profiles
Glass	Tempered Glass
Encapsulated Materials	Ethylene Vinyl Acetate (EVA)
Backsheet Materials	Composite Films
Solar Cell	Multicrystalline Silicon
Junction Box	3 Bypass Diodes
PV Cable	1x4 mm <sup>2</sup> Length 1000 mm.

## Dimension



## I-V Characteristic Curves



Electrical specification are based on measurements performed at standard test conditions (STC) of 1000 W/m<sup>2</sup> irradiance, air mass 1.5 and cell temperature of 25°C after long-term stabilization. Performance may vary up to 10% from rated power due to temperature operation, spectrum and related effects.

Note: Dimension and electrical specification of the solar modules may change without notice according to the type or size of cells in each lot to used in manufacturing lines.

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