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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Aditi Solar Private Limited  
Aditi 12V - 50WP  
12V - 50WP**

Also available on the web at  
[EnergyPal.com/aditi-solar-private-limited-solar-panels/12v-50wp](http://EnergyPal.com/aditi-solar-private-limited-solar-panels/12v-50wp)



## SOLAR PHOTOVOLTAIC MODULES

### Aditi's Photovoltaic Modules

- ★ High efficiency, Mono or Multi crystalline solar cells with high transmission and textured glass delivering a module series efficiency of up to 14.3%, minimizing installation costs and maximizing the kWh output of your system per unit area.
- ★ High quality, low iron, high transmissivity, tempered and toughened glass to ensure high light absorption.
- ★ Tin Copper interconnect increases Solderability and Conductivity. This also results in maximum output efficiency from the Module.
- ★ Premium quality encapsulation material ensuring high quality lamination leading to better performance.
- ★ Polyester tedlar used as a back sheet prevents from moisture and mechanical damage.
- ★ Weather resistant frame - seal helps preventing water seepage and protects the system from humidity.
- ★ Anodized Aluminum frame gives the system strong, corrosion-free structural support.
- ★ Produced in an ISO 9001:2008 & 14001:2004 certified production facilities.
- ★ Certifications: IEC 61215, IEC 61730-1&2, IEC 61701.
- ★ Warranty,
  - a) 90% of the rated power is guaranteed for a period of 10 years.
  - b) 80% of the rated power is guaranteed for a period of 25 years.



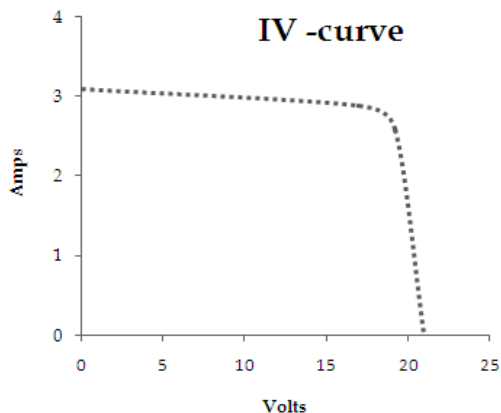
#### Model No: ADT 1250

#### Electrical Specifications:

Product Description	<b>12V - 50WP</b>
Rated POWER <b>P<sub>max</sub> - [W]</b>	<b>50.00</b>
Rated Voltage <b>V<sub>max</sub> - [V]</b>	<b>17.50</b>
Rated Current <b>I<sub>max</sub> - [A]</b>	<b>2.86</b>
Open Circuit Voltage <b>V<sub>oc</sub> - [V]</b>	<b>21.50</b>
Short Circuit Current <b>I<sub>sc</sub> - [A]</b>	<b>3.06</b>
Module Efficiency <b>η - [%]</b>	<b>12.60</b>
Tolerance	<b>± 3%</b>

Standard Test Conditions: Irradiance 1000 W/ m<sup>2</sup>, Module temperature 25°C, Spectrum AM 1.5

#### Module IV-Curve:



#### Temperature Coefficients

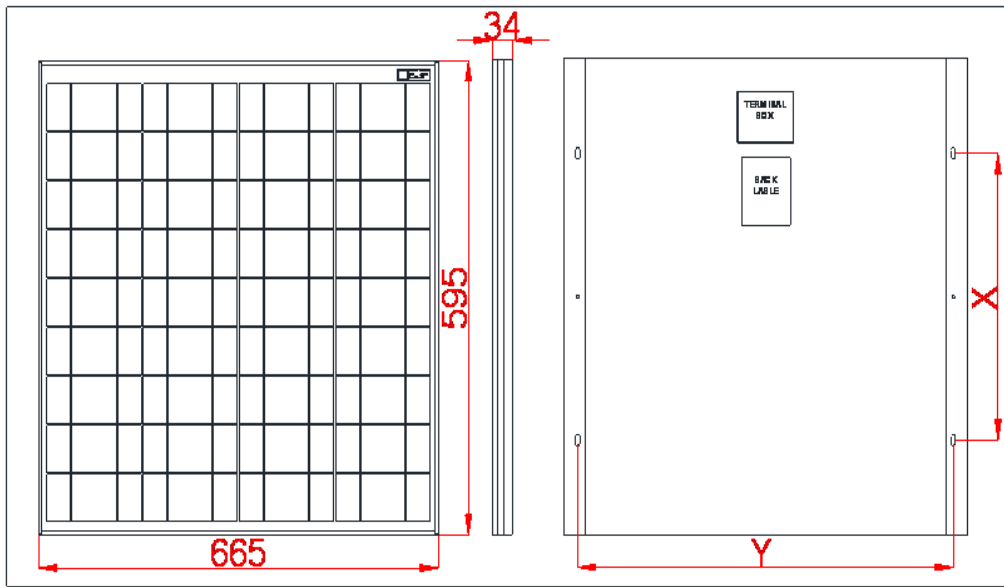
Voltage V <sub>oc</sub>	:	<b>-0.33%/K</b>
Current I <sub>sc</sub>	:	<b>+0.06%/K</b>
Power P <sub>max</sub>	:	<b>-0.40%/K</b>

Maximum system voltage	:	<b>1000 V DC</b>
Operating Module Temperature	:	<b>-40°C to +85°C</b>
NOCT	:	<b>47°C ± 2°C</b>

#### Certifications



## Module Drawing & Mounting details:



## Mechanical Specifications:

Length [mm]	595 ± 2
Width [mm]	665 ± 2
Thickness [mm]	34
X [mm]	355 ± 2
Y [mm]	620 ± 2
Mounting hole	10X7 mm slot
Earth hole	5mm dia
Aprox. weight [Kg]	4.50
No. of cells	36 / 72

## Other Characteristics:

Cell type	Mono / Multi Crystalline
Front Glass	Toughened Textured Glass
Glass thickness	3.2 mm
Cell Encapsulation	EVA (Ethylene Vinyl Acetate)
Back sheet	Poly vinyl Fluoride
Frame	Anodized, Extruded Aluminum frame
Junction Box	Nylon / ABS moulded 3 rail junction box

**Due to continuous upgradation of products, specifications mentioned are subject to change without prior notice.**



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