

# TSP-60 230Watt-235Watt-240Watt-245Watt-250Watt-255Watt

## Technology & Quality

- A complete photovoltaic industry chain  
Beyondsun group have a complete photovoltaic industry chain including crystalline wafer, solar cells, solar modules and photovoltaic system applications.
- Top quality  
We guarantee our products above 90% power output in 10years and above 80% in 25years, working life over 25years.



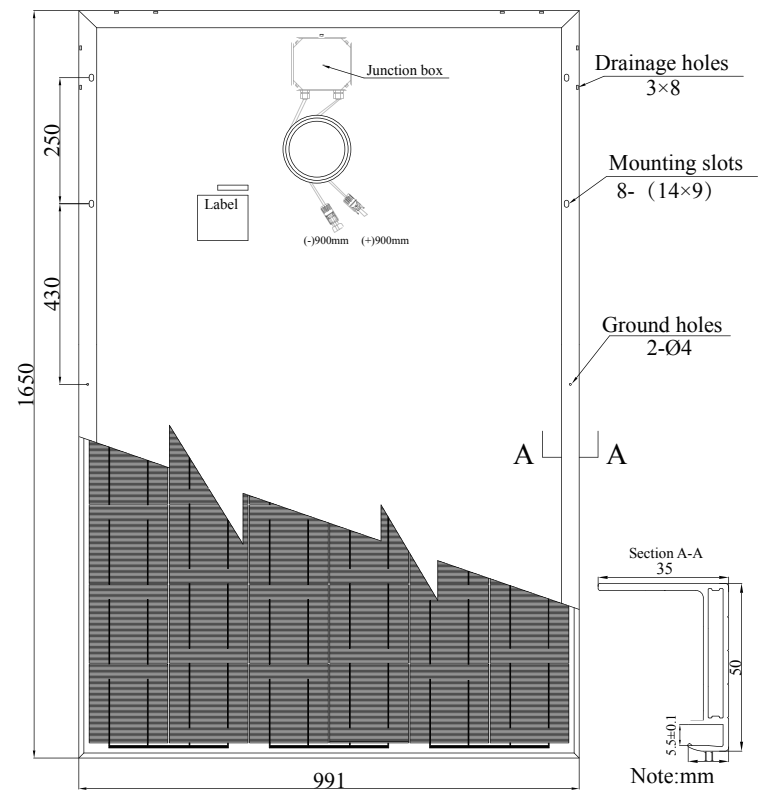
## Features

- High-efficiency solar cell ensures high performance of solar module and create more power in peak hours
- Anti-reflecting coating and high-transmission rate glass increase the power output and mechanical strength of solar module
- Torsion and corrosion-resistant anodized frame ensures dependable performance, even through harsh weather conditions
- Lightweight and pre-drilled mounting holes for easy installation
- Water-resistant junction box
- Designed specially to meet our customer demands for residential, commercial and industrial use



## Mechanical Characteristics

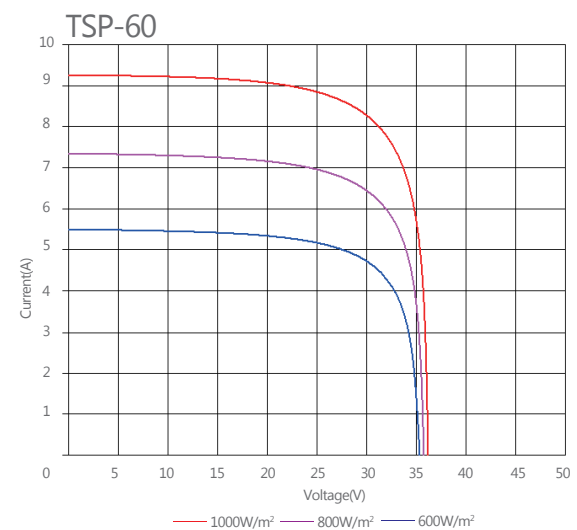
Type of Cell	Poly-Crystalline 156 x 156mm
Cells Array and Number	6 x 10 (60pcs)
Dimensions	1650 x 991 x 45mm
Weight	22.2kg
Front Glas	4mm Tempered Glass
Frame	Anodized Aluminium Alloy
Encapsulation	Glass/EVA/Cells/EVA/TPT
Relativ	0 to 100%
Resistance	227g steel ball fall down from 1m height and 60m/s Wind
Snow load parameters	5400Pa



## Temperature Coefficients

Nominal Operating Cell Temperature(NOCT)	50°C ± 2°C
Temperature Coefficient of Pmax	-(0.410±0.05)%/K
Temperature Coefficient of Voc	-(0.320±0.01)%/K
Temperature Coefficient of Isc	(0.050±0.01)%/K
Maximum Series Fuse/current rating	15A

## I-V Characteristics Curve



## Electrical Characteristics

Characteristics	TSP230	TSP235	TSP240	TSP245	TSP250	TSP255
Open-Circuit Voltage (Voc)	35.40V	35.40V	35.40V	36.00V	36.00V	36.00V
Optimum Operating Voltage (Vmp)	29.50V	29.50V	29.50V	30.00V	30.00V	30.00V
Short-Circuit Current(Isc)	8.73A	8.92A	9.11A	9.15A	9.33A	9.52A
Optimum Operating Current (Imp)	7.80A	7.97A	8.14A	8.17A	8.33A	8.50A
Maximum Power at STC (Pmax)	230W	235W	240W	245W	250W	255W
Module Efficiency	14.1%	14.4%	14.7%	15.0%	15.3%	15.6%
Operating Temperature	- 40°C to + 85°C					
Maximum System Voltage	1000V DC					
Power Tolerance	0 / +3%					

STC:Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM=1.5