

# STP170S-24/Ab-1

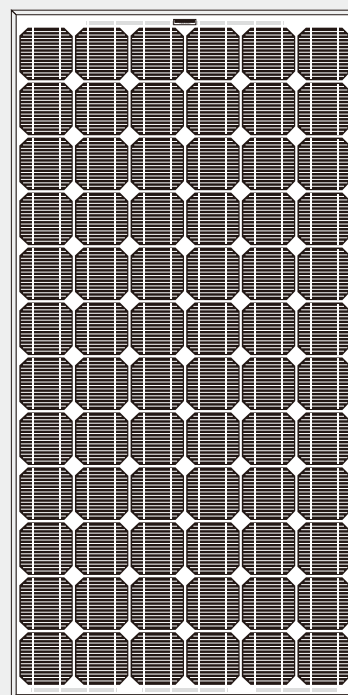
**STP160S-24/Ab-1 STP165S-24/Ab-1**  
**STP175S-24/Ab-1 STP180S-24/Ab-1**

## High Efficiency, High Quality PV Module

Suntech's STPAb-1 is designed and built to deliver highest efficiency and reliable power for on-grid residential and commercial systems worldwide. Relying on Suntech's well-known stringent manufacturing standards and latest PV technology, the module provides the highest possible energy output per Watt with total module efficiency of 14.1%. Superior conversion rate and exceptional low-light performance enable it to deal with the most challenging conditions of military, utility, residential and commercial installations. The module is the perfect choice for those who demand outstanding performance and exceptional uniform appearance.

### Features and benefits

- High efficiency
- Nominal 24 V DC for standard output
- Outstanding low-light performance
- High transparent low-iron, tempered glass
- Unique techniques give the panel following features: esthetic appearance, with stands high wind-pressure and snow load, and easy installation
- Unique technology ensure that problems of water freezing and warping do not occur
- Design to meet unique demand of customer
- 25 year power output warranty

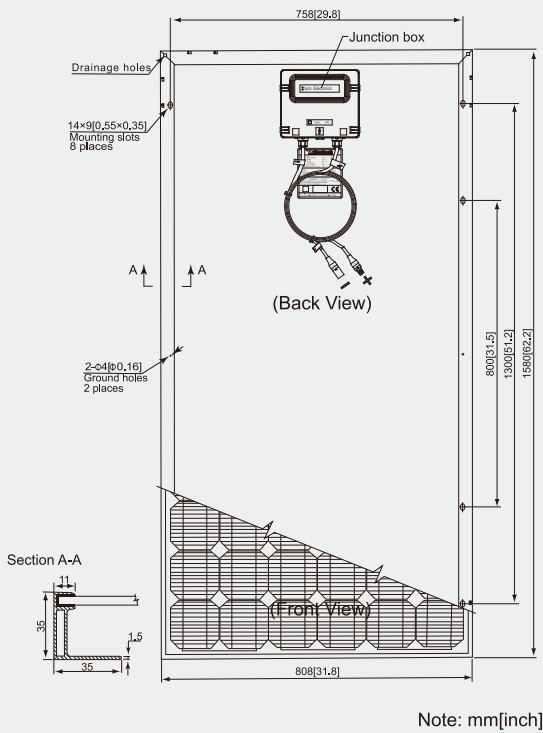


## Electrical Characteristics

| Model                           | STP180S-24/Ab-1 | STP175S-24/Ab-1 | STP170S-24/Ab-1 | STP165S-24/Ab-1 | STP160S-24/Ab-1 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Open-circuit voltage (Voc)      | 44.4V           | 44.2V           | 43.8V           | 43.6V           | 43.2V           |
| Optimum operating voltage (Vmp) | 35.6V           | 35.2V           | 35.2V           | 34.8V           | 34.4V           |
| Short-circuit current (Isc)     | 5.4A            | 5.2A            | 5.14A           | 5.04A           | 5A              |
| Optimum operating current (Imp) | 5.05A           | 4.95A           | 4.83A           | 4.74A           | 4.65A           |
| Maximum power at STC (Pmax)     | 180Wp           | 175Wp           | 170Wp           | 165Wp           | 160Wp           |
| Operating temperature           | -40 to +85      | -40 to +85      | -40 to +85      | -40 to +85      | -40 to +85      |
| Maximum system voltage          | 600V DC         | 600V DC         | 600V DC         | 600V DC         | 600V DC         |

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

## Module Diagram



## Specifications

|                              |  |
|------------------------------|--|
| Cell                         | Monocrystalline silicon solar cells<br>125mm×125mm |
| No. of cells and connections | 72(6×12)   |
| Dimension of module          | 1580mm×808mm×35mm                                  |
| Weight                       | 15.5kg   |

## Temperature Coefficients

|   |           |
|---|-----------|
| NOCT  | 45°C±2°C  |
| Short-circuit current temperature coefficient | 0.017 %/K |
| Open-circuit voltage temperature coefficient  | -0.34 %/K |
| Peak power temperature coefficient            | -0.48 %/K |
| Power tolerance                               | ±3%       |

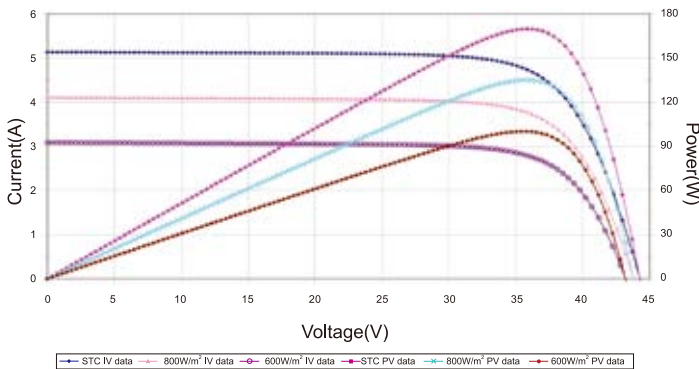
NOCT: Nominal Operating Cell Temperature  
(data refer to STP165S)

## Output

|            |                        |
|------------|------------------------|
| Cable      | AIW (12AWG)            |
| Lengths    | 1200mm(-) and 800mm(+) |
| Connection | MC Plug Type IV        |

## Characteristics

Module IV Graph 170W



## Normalized Isc, Voc, Pmax vs. module temperature characteristics

