## TSUNTECH

## STP040S-12/Rb

## STP045S-12/Rb

Suntech's STPRb features total efficiency of 12.6\% Which delivers the maximum power output at peak hours. Ideal for off-grid and remote power systems. With a 25 year warranty, the module has high efficiency and long-lasting operating time even in a variety of rigorous conditions. Unique textured cell surface and bypass diode design is critical for the module to fully utilize and absorb sunlight and offer maximum usable power per square foot of solar array.

## Features and benefits

- High efficiency
- Nominal 12 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


## High Efficiency, High Quality PV Module



C $\epsilon$

Electrical Characteristics

| Model | STP045S-12/Rb | STP040S-12/Rb |
| :---: | :---: | :---: |
| Open-circuit voltage (Voc) | 22 V | 21.8 V |
| Optimum operating voltage (Vmp) | 17.6 V | 17.4 V |
| Short-circuit current (Isc) | 2.79 A | 2.58 A |
| Optimum operating current (Imp) | 2.56 A | 2.3 A |
| Maximum power at STC (Pmax) | 45 Wp | 40 Wp |
| Operating temperature | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Maximum system voltage | 715 V DC | 715 V DC |

[^0]
## TSUNTECH

## Module Diagram



Note: mm[inch]

## Characteristics

Module IV Graph 40W

$\rightarrow$ STC IV data $->800 \mathrm{~W} / \mathrm{m}^{2} \mathrm{~V}$ data $\rightarrow 600 \mathrm{~W} / \mathrm{m}^{2} \mathrm{IV}$ data $\rightarrow \mathrm{STC} \mathrm{PV}$ data $-800 \mathrm{~W} / \mathrm{m}^{2} \mathrm{PV}$ data $\rightarrow 600 \mathrm{~W} / \mathrm{m}^{2} \mathrm{PV}$ data

## Specifications

| Cell | Monocrystalline silicon solar cells <br> $156 \mathrm{~mm} \times 52 \mathrm{~mm}$ |
| :---: | :---: |
| No. of cells and connections | $36(4 \times 9)$ |
| Dimension of module | $537 \mathrm{~mm} \times 665 \mathrm{~mm} \times 30 \mathrm{~mm}$ |
| Weight | 4.5 kg |

## Temperature Coefficients

| NOCT | $45^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}$ |
| :---: | :---: |
| Short-circuit current temperature coefficient | $(0.055 \pm 0.01) \% / \mathrm{K}$ |
| Open-circuit voltage temperature coefficient | $-(78 \pm 10) \mathrm{mV} / \mathrm{K}$ |
| Peak power temperature coefficient | $-(0.48 \pm 0.05) \% / \mathrm{K}$ |
| Power tolerance | $\pm 5 \%$ |

NOCT: Nominal Operating Cell Temperature
(the data is only for reference)

Output

| Cable | YUSHENG(18AWG×2C) |
| :---: | :---: |
| Lengths | 3000 mm |


[^0]:    STC: Irradiance $1000 \mathrm{~W} / \mathrm{m}^{2}$, Module temperature $25^{\circ} \mathrm{C}, \mathrm{AM}=1.5$

