

SUNTECH – STP180S-24/Ad / STP185S-24/Ad

Solar modules are the key element of every solar power system as they convert sunlight into electricity. Their quality and the optimum use of the respective technology are therefore decisive for the yield and profit of your system. Monocrystalline solar modules provide reliable experience based on more than 40 years of use and continuously deliver excellent yields.

Phoenix Solar selects the best solar modules from leading international manufacturers based on strict quality criteria. They are tested by our own technical experts as well as independent institutes. This provides you with investment security whilst optimising your return at the same time.



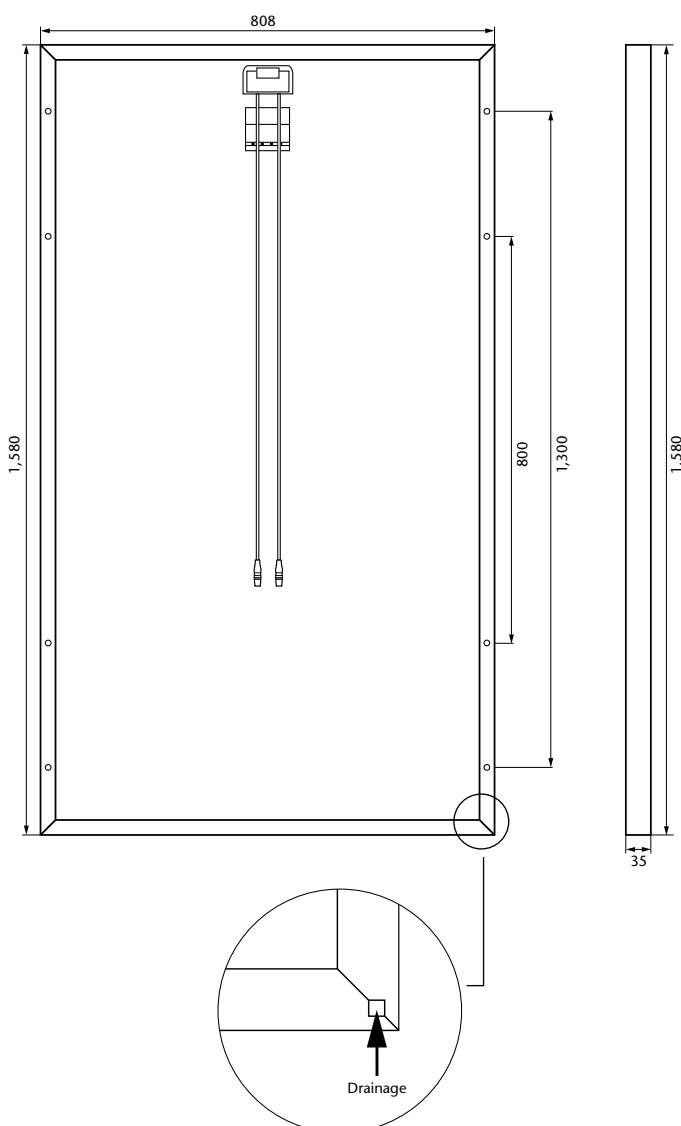
The advantages at a glance:

- 180 and 185 Wp power output available
- Tested in a RAL certificated process, independent of the manufacturer
- Monocrystalline high-performance cells with a module efficiency of up to 14.50 %
- 25-year performance guarantee* at 80 % of the minimal rated power output
- 12-year performance guarantee* at 90 % of the minimal rated power output
- New cell design and thin fingers are increasing the total module efficiency
- Robust, non-corroding aluminium frame and tempered glass for more output, high impact resistance and protection against hail, snow, ice and storms

*The manufacturer's terms and conditions of guarantee apply

Experience that pays

Phoenix Solar or your local Phoenix Solar partner individually match the solar modules and all additional system components to ensure that you get the ideal system to meet your requirements. All of our sales partners have a considerable amount of expertise and many years of experience in solar technology and have been personally chosen by us according to the strictest quality criteria.



Mechanical parameters

Length [mm]	1,580
Width [mm]	808
Depth [mm]	35
Depth with connection socket [mm]	35
Weight [kg]	17.20
Connection socket (manufacturer/ number of diodes)	Huber + Suhner/3
Positive cable (manufacturer/length [mm]/ cable cross-section [mm ²])	Huber + Suhner/ 1,000/4
Negative cable (manufacturer/length [mm]/ cable cross-section [mm ²])	Huber + Suhner/ 1,000/4
Plug connector (manufacturer/type)	Huber + Suhner/ Twist locking
Front cover (material/thickness [mm])	Tempered glass/4
Cell type (quantity/technology)	72/monocrystalline
Cell embedding (material)	Ethylene Vinyl Acetate (EVA)
Rear cover (material)	TPT
Frame (material/profile type)	Aluminium/ hollow profile

Manufacturer's guarantee

Product guarantee	5-year product guarantee*
-------------------	---------------------------

Performance guarantee

- 25 years overall performance guarantee*
- 5 years at 95 % of the minimal rated power output*
- 12 years at 90 % of the minimal rated power output*
- 18 years at 85 % of the minimal rated power output*
- 25 years at 80 % of the minimal rated power output*

*The manufacturer's terms and conditions of guarantee apply

Qualifications and Certificates

IEC 61215

IEC 61730 Class A



Suntech Power was founded in 2001 in China and already ranks among today's leading manufacturers of solar cells and modules worldwide. The company operates its own ultra-modern development department and works according to strict quality guidelines. Suntech places special emphasis on continuously optimising the ratio between manufacturing costs and module performance, thus increasing the profitability of solar power over the long-term. Suntech Power is a member of PC-Cycle.



Electrical parameters

Electrical parameters for STC (1,000 W/m², T_{Module} = 25 (+/- 2)°C, AM 1.5 according to EN/IEC 60904-3)

Article number	100746	100745
Power output [P _{mpp}]	180	185
Power output tolerances [%]	- 0/+ 3	- 0/+ 3
Efficiency [%]	14.10	14.50
Max. voltage V _{mpp} [V]	36.00	36.40
Max. current I _{mpp} [A]	5.00	5.09
Open circuit voltage V _{oc} [V]	44.80	45.00
Short circuit current I _{sc} [A]	5.29	5.43

Electrical parameters for 800 W/m², NOCT, AM 1.5 according to EN/IEC 60904-3

NOCT = Nominal Operating Cell Temperature, cell temperature under nominal operating conditions

Max. power output P _{mpp} [Wp]	131	135
Max. voltage V _{mpp} [V]	32.80	33.00
Max. current I _{mpp} [A]	4.01	4.10
Open circuit voltage V _{oc} [V]	40.60	41.00
Short circuit current I _{sc} [A]	4.32	4.40

Electrical parameters for STC 200 W/m², T_{Module} = 25°C, AM 1.5 EN 60904-1

Max. power output P _{mpp} [Wp]	36.90	37.90
Max. voltage V _{mpp} [V]	35.40	35.80
Max. current I _{mpp} [A]	1.04	1.06
Open circuit voltage V _{oc} [V]	41.70	41.90
Short circuit current I _{sc} [A]	1.11	1.13

Reverse current loading capability I _R [A]	15
Max. permissible system voltage V _{sys} [V]	1,000

Parameters of the thermal characteristics

NOCT [° C]	45
Temperature coefficient of the short circuit current I _{sc} [%/K]	+ 0.037
Temperature coefficient of the open circuit voltage V _{oc} [%/K]	- 0.34
Temperature coefficient of the MPP power P _{mpp} [%/K]	- 0.48

Operating conditions

Max. operating temperature [° C]	- 40 to + 85
Max. snow load [Pa]	5,400
Max. wind load [Pa]	2,400

Subject to modifications and errors

PLANNING GUIDE

The module array displayed below applies specifically to Suntech STP180S-24/Ad and STP185S-24/Ad modules, including the distances for connecting them together (using the Tecto-Sun mounting system, scale: 1:100).

Notes on use: Draw a scale diagram of the roof (1:100) with all the details (windows, dormer windows, chimneys,

etc.) on transparent paper and place it over this module array. Copy the intersecting points of the grid on the roof diagram and connect them with a line. If the roof diagram is larger than the grid, it can be moved as required. Doing this allows you to determine the maximum allocation of modules while taking shading and objects on the roof into account.

