

## SCHOTT SOLAR – POLY™ 165 / 170 / 175 / 180\*

Solar modules are the key element of every solar power system as they convert sunlight into electricity. Their quality, reliability and performance are therefore critical for the yield and profit of your system. Polycrystalline solar modules provide reliable performance based on more than 40 years of use and have a track record of delivering 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 the investment security whilst optimising your return at the same time.



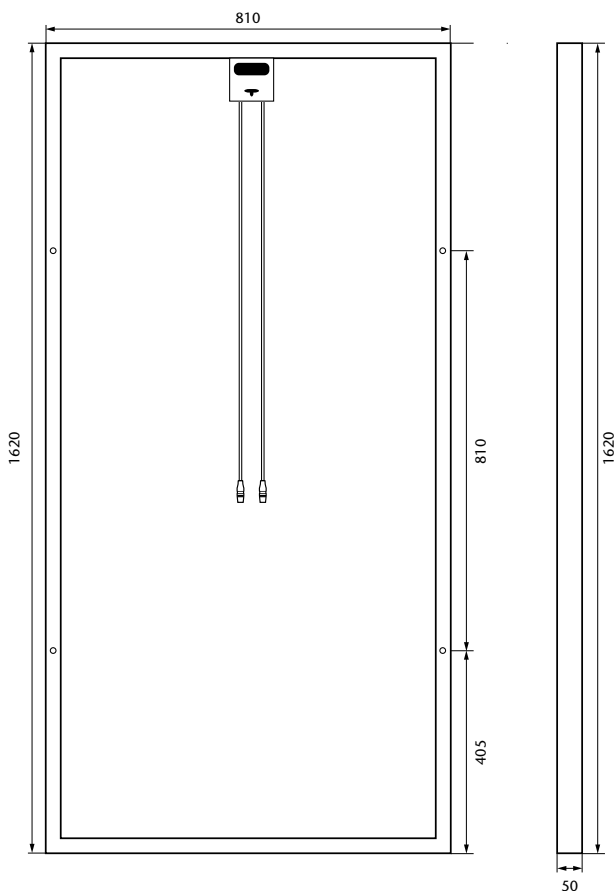
### The advantages at a glance:

- 165, 170, 175 and 180 Wp output
- Tested in a RAL certificated process, independent of the manufacturer
- High performance modules with iso-textured polycrystalline cells and an efficiency level of up to 13.7%
- Extremely stable, non-corrosive aluminium frame for high loads up to 5,400 Pascal
- Hardened glass guarantees high shock resistance
- 25-year performance guarantee\* on 80% of the minimal performance
- 10 year performance guarantee\* on 90% of the minimal performance
- Ideal module dimensions for maximum efficiency during installation
- Quality: „Made in Germany“

\* The manufacturer's warranty conditions 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]	1620 ± 3
Width [mm]	810 ± 3
Depth [mm]	50 ± 1
Depth with connection socket [mm]	50
Weight [kg]	15.5
Connection socket (manufacturer/material/number of diodes)	Schott/ Polyphenylderivat/3
Positive cable (manufacturer/length [mm]/cable cross-section [mm <sup>2</sup> ])	Schott/1000/4
Negative cable (manufacturer/length [mm]/cable cross-section [mm <sup>2</sup> ])	Schott/1000/4
Plug connector (manufacturer)	Tyco
Front cover (material)	Low iron glass/3.2
Cell type (quantity/technology)	72/polycrystalline
Cell embedding (material)	Ethylene vinyl acetate (EVA)
Rear cover (material/thickness [mm])	Tedlar/0.17
Frame (material/profile type)	Aluminium/U-Profile

## Statutory warranty and manufacturer's guarantee

Product warranty	5-year product limited warranty*
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Performance guarantee      10 years at 90 % of the minimal rated power output\*  
 25 years at 80 % the minimal rated power output\*

\* The warranty conditions or manufacturer's apply

## Qualifications and Certificates

IEC 61215 Ed. 2

IEC 61730 Class A, Class C

**SCHOTT**  
solar

Schott Solar combines over 40 years of experience in solar technology with the tradition of a leading specialized glass manufacturer. The name stands for "Made in Germany" quality and excellent workmanship. The high yields of their modules in particular, along with the environmental friendliness of their manufacturing process have made Schott Solar one of the European module manufacturing leaders.



## Electrical parameters

Electrical parameters for STC (1000 W/m<sup>2</sup>, 25 (+/- 2)°C, AM 1.5 according to EN/IEC 60904-3)

Article number	100097	100096	100095	100081
Power output [ $P_{mpp}$ ]	≥ 165	≥ 170	≥ 175	≥ 180
Power output tolerances [%]	-0%	-0%	-0%	-0%
Efficiency [%]	12.60	13.00	13.30	13.70
Max. voltage $V_{mpp}$ [V]	35.10	35.50	35.90	36.30
Max. current $I_{mpp}$ [A]	4.70	4.78	4.87	4.95
Open circuit voltage $V_{oc}$ [V]	43.60	44.00	44.30	44.60
Short circuit current $I_{sc}$ [A]	5.27	5.30	5.34	5.39

Electrical parameters for 800 W/m<sup>2</sup>. NOCT. AM 1.5 according to EN/IEC 60904-3

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

Max. power output $P_{max}$ [Wp]	118	122	125	129
Max. voltage $V_{max}$ [V]	31.20	31.50	31.90	32.20
Max. current $I_{mpp}$ [A]	3.78	3.87	3.91	4.00
Open circuit voltage $V_{oc}$ [V]	40.00	40.30	40.60	40.90
Short circuit current $I_{sc}$ [A]	4.24	4.26	4.29	4.33

Reverse current loading capability $I_R$ [A]	17 ( $U_{back} < U_{oc}$ )
Max. permissible system voltage $V_{max}$ [V]	1000

### Parameters of the thermal characteristics

NOCT [°C]	47.10
Temperature coefficient of the short circuit current $I_{sc}$ [%/K]	+ 0.023
Temperature coefficient of the open circuit voltage $V_{oc}$ [%/K]	- 0.350
Temperature coefficient of the MPP power $P_{mpp}$ [%/K]	- 0.48

## Operating conditions

Max. operating temperature [°C]	- 40 to + 85
Max. snow load [Pa]	5400
Max. wind load [Pa]	5400

Subject to modifications and errors

## PLANNING GUIDE

The module array displayed below applies specifically to SCHOTT SOLAR – POLY™ 165/170/175/180 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.

