

# SOLON 280/11 SOLON 270/11

*Crystalline PV Modules for Industrial Rooftops  
and Ground Installations.*



- › Highly efficient monocrystalline and polycrystalline cell technology
- › Positive sorting of power classes (0 to +4.99 Wp)
- › 10-year product warranty and 5-level performance guarantee
- › Certified ammonia resistance
- › Performance stability without PID losses



# For Everyone with Big Plans.

SOLON Blue 220/16 and SOLON Black 220/16 are standard solutions for all photovoltaic projects—whether on detached houses or large industrial rooftops. They combine quality and reliability at a fair price. With efficiency of over 16 %, “Made by SOLON” quality and free-of-charge module recycling, each project is a success. It’s as simple as that.

## Maximum Efficiency.

- › The latest, high-efficiency monocrystalline and polycrystalline cell technology from the world’s leading cell suppliers
- › Excellent low light performance
- › Improved output due to positive sorting of power classes (0 to +4.99 Wp)
- › PID-free products with guaranteed performance stability
- › Exceptional module efficiency of up to 16.2%

## Highest Stability and Longevity.

- › Comprehensive lifespan tests, including outdoor tests and climate chamber storage
- › 42 mm anodized aluminum frame with twin-wall profile
- › Drainage holes for outstanding weather-resistance
- › Ultra-hardened low-reflection 4 mm solar glass
- › Corrosion-proof component

## Highest Quality.

- › All system components meet stringent SOLON quality criteria
- › Rigorous process and material monitoring
- › Outstanding workmanship
- › Continuous auditing using internal and external tests

## Safety Included.

- › High mechanical resistance: tested to 5,400Pa (540 kg/m<sup>2</sup>)
- › Comprehensive SOLON warranties

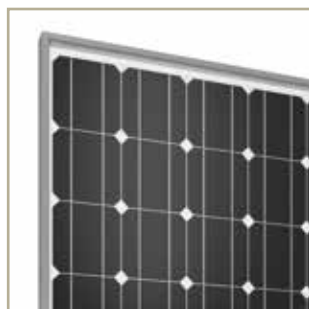
## SOLON Advantages:

- › 10-year product warranty<sup>1)</sup>
- › 5-level performance guarantee for 25 years<sup>1)</sup>
- › Positive sorting of power classes (0 to +4.99 Wp)

1) According to the SOLON Product and Performance Guarantee.

# SOLON 280/11, SOLON 270/11

## SOLON Black 280/11 (monocrystalline)



### Electrical data – typical (STC)

STC (Standard Test Conditions): 1,000 W/m<sup>2</sup>, (25 ± 2)°C, AM 1.5 in accordance with EN 60904-3

Power rating	P <sub>max</sub>	320 Wp <sup>1)</sup>	315 Wp	310 Wp	305 Wp	300 Wp	295 Wp
Module efficiency		16.16%	15.91%	15.66%	15.40%	15.15%	14.90%
Rated voltage	U <sub>mpp</sub>	36.8 V	36.6 V	36.4 V	36.2 V	36.0 V	35.8 V
Rated current	I <sub>mpp</sub>	8.72 A	8.64 A	8.55 A	8.45 A	8.36 A	8.26 A
Open circuit voltage	U <sub>oc</sub>	45.8 V	45.5 V	45.2 V	45.0 V	44.8 V	44.5 V
Short circuit current	I <sub>sc</sub>	8.97 A	8.91 A	8.86 A	8.79 A	8.74 A	8.66 A
Maximum reverse current	I <sub>r</sub>	20 A	20 A	20 A	20 A	20 A	20 A
Maximum system voltage		1,000 V	1,000 V	1,000 V	1,000 V	1,000 V	1,000 V

Measuring tolerance for P<sub>max</sub>: 0 ÷ +5%

Reduction of module efficiency from 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup>: < 4 %

### Electrical data – typical (NOCT)

NOCT (Nominal Operating Cell Temperature): 800 W/m<sup>2</sup>, NOCT, AM 1.5

Power rating	P <sub>max</sub>	229 Wp	226 Wp	222 Wp	219 Wp	215 Wp	212 Wp
Rated voltage	U <sub>mpp</sub>	33.0 V	32.8 V	32.7 V	32.5 V	32.3 V	32.1 V
Rated current	I <sub>mpp</sub>	6.96 A	6.88 A	6.81 A	6.74 A	6.67 A	6.59 A
Open circuit voltage	U <sub>oc</sub>	41.3 V	41.1 V	40.9 V	40.7 V	40.5 V	40.2 V
Short circuit current	I <sub>sc</sub>	7.24 A	7.19 A	7.15 A	7.10 A	7.06 A	6.99 A

### Thermal data

T<sub>c</sub> of open circuit voltage

-0,33% /K

T<sub>c</sub> of short circuit current

0,04% /K

T<sub>c</sub> of power

-0,43% /K

NOCT (according to IEC 61215) 48°C ± 2°C

Measuring tolerance for all final data: ± 10 % (except P<sub>max</sub> (STC) and NOCT)

## SOLON Blue 270/11 (polycrystalline)



### Electrical data – typical (STC)

STC (Standard Test Conditions): 1,000 W/m<sup>2</sup>, (25 ± 2)°C, AM 1.5 in accordance with EN 60904-3

Power rating	P <sub>max</sub>	315 Wp <sup>1)</sup>	310 Wp	305 Wp	300 Wp	295 Wp	290 Wp
Module efficiency		16.70%	15.82%	15.40%	15.15%	14.90%	14.65%
Rated voltage	U <sub>mpp</sub>	37.9 V	37.6 V	37.3 V	37.0 V	36.8 V	36.5 V
Rated current	I <sub>mpp</sub>	8.31 A	8.27 A	8.18 A	8.12 A	8.04 A	7.95 A
Open circuit voltage	U <sub>oc</sub>	45.6 V	45.4 V	45.2 V	45.0 V	44.8 V	44.5 V
Short circuit current	I <sub>sc</sub>	8.65 A	8.59 A	8.53 A	8.46 A	8.39 A	8.33 A
Maximum reverse current	I <sub>r</sub>	20 A	20 A	20 A	20 A	20 A	20 A
Maximum system voltage		1,000 V	1,000 V	1,000 V	1,000 V	1,000 V	1,000 V

Measuring tolerance for P<sub>max</sub>: 0 ÷ +5%

Reduction of module efficiency from 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup>: < 5 %

### Electrical data – typical (NOCT)

NOCT (Nominal Operating Cell Temperature): 800 W/m<sup>2</sup>, NOCT, AM 1.5

Power rating	P <sub>max</sub>	222 Wp	218 Wp	215 Wp	211 Wp	207 Wp	204 Wp
Rated voltage	U <sub>mpp</sub>	33,9 V	33.7 V	33.5 V	33.2 V	33.0 V	32.7 V
Rated current	I <sub>mpp</sub>	6,54 A	6.48 A	6.42 A	6.36 A	6.29 A	6.23 A
Open circuit voltage	U <sub>oc</sub>	41,3 V	41.1 V	40.9 V	40.7 V	40.5 V	40.3 V
Short circuit current	I <sub>sc</sub>	6,92 A	6.87 A	6.81 A	6.76 A	6.71 A	6.66 A

### Thermal data

T<sub>c</sub> of open circuit voltage

-0,32% /K

T<sub>c</sub> of short circuit current

0,05% /K

T<sub>c</sub> of power

-0,41% /K

NOCT (according to IEC 61215) 46°C ± 2°C

Measuring tolerance for all final data: ± 10 % (except P<sub>max</sub> (STC) and NOCT)

<sup>1)</sup> Available in limited amounts upon request.



# SOLON 280/11, SOLON 270/11

SOLON Black 280/11, SOLON Blue 270/11

## Mechanical specifications

Dimensions (H x W x D)	1,980 x 1,000 x 42 mm
Weight	30 kg
Junction box	1 box with 3 bypass diodes
Cable	Solar cable, length 1,500 mm, 4 mm <sup>2</sup> , prefabricated with MC4-combinable plug
Application class	Class A at IEC 61730
Front glass	Transparent toughened safety glass, 4 mm
Photovoltaic cells	72 cells, monocrystalline or polycrystalline Si 6.2" (156 x 156 mm)
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Back side	Composite film
Frame	Anodized aluminum frame with twin-wall profile and drainage holes

## Permissible operating conditions

Temperature range	- 40°C to + 85°C
Maximum surface load capacity	Tested up to 5,400 Pa according to IEC 61215 (advanced test)
Resistance against hail	Maximum diameter of 25 mm with impact speed of 83 km/h

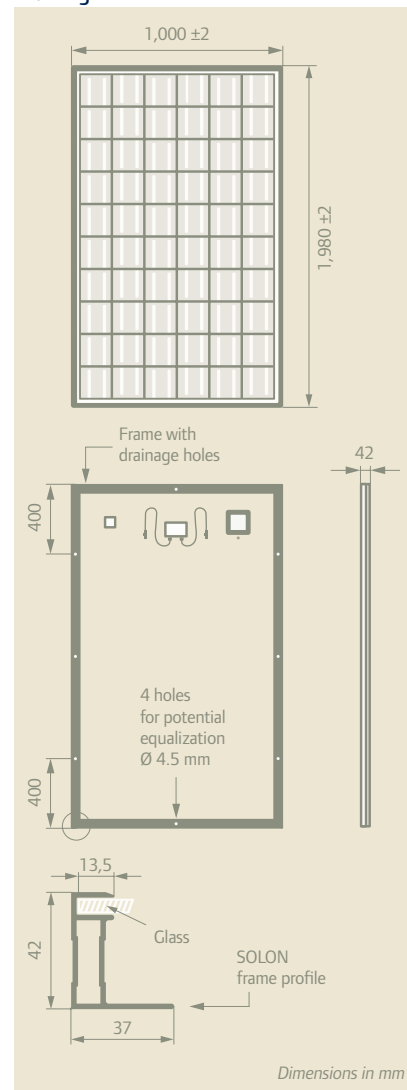
## Guarantees and certifications

Product guarantee	10 years <sup>2)</sup>
Performance guarantee	Guaranteed output of 95 % for 5 years, 90 % for 10 years, 87 % for 15, 83 % for 20 years and 80 % for 25 years <sup>2)</sup>
Approvals and certificates	IEC 61215 Edition II, IEC 61730 (incl. Safety Class II), IEC 62716 (Ammonia resistance), IEC 68-2-52 (Salt mist resistance), MCS

This datasheet complies with the requirements of EN 50380:2003. Subject to modifications.  
Electrical data without guarantee. SOLON is certified to ISO 9001, ISO 14001 and OHSAS 18001.

<sup>2)</sup> According to SOLON Product and Performance Guarantee

## Drawing



CEC Approved