

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)
- › SOLON solar insurance included
- › 10-year product warranty and 5-level performance guarantee
- › Certified ammonia resistance
- › Performance stability without PID losses



For Everyone with Big Plans.

SOLON is continually setting new standards in the fields of power plant technology and intelligent grid connection. The best examples of such customization: SOLON Black 280/11 and SOLON Blue 270/11. They feature all the key characteristics that are crucial in building large scale solar power plants – whether for industrial rooftop systems or ground-mounted power plants.

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 15.7%

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 components

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 5,400 Pa (540 kg/m²)
- › Comprehensive SOLON warranties

SOLON Advantages:

- › 10-year product warranty¹⁾
- › 5-level performance guarantee for 25 years¹⁾
- › SOLON solar insurance for rooftop installations included²⁾
- › Positive sorting of power classes (0 to +4.99 Wp)
- › Free module recycling

¹⁾According to the SOLON Product and Performance Guarantee.

²⁾Applicable in the European Union and Switzerland.

SOLON 280/11. SOLON 270/11

SOLON Black 280/11 (monocrystalline)



Electrical data – typical (STC)

STC (Standard Test Conditions): 1.000 W/m². (25 ± 2)°C. AM 1.5 in accordance with EN 60904-3

Power rating	P _{max}	310 Wp ¹⁾	305 Wp ¹⁾	300 Wp	295 Wp	290 Wp	285 Wp
Module efficiency		15.66%	15.40%	15.15%	14.90%	14.65%	14.39%
Rated voltage	V _{mpp}	36.43 V	36.22 V	36.00 V	35.80 V	35.60 V	35.40 V
Rated current	I _{mpp}	8.55 A	8.45 A	8.36 A	8.26 A	8.16 A	8.06 A
Open circuit voltage	V _{OC}	45.24 V	44.98 V	44.77 V	44.50 V	44.23 V	43.96 V
Short circuit current	I _{SC}	8.86 A	8.79 A	8.74 A	8.66 A	8.59 A	8.51 A
Maximum reverse current	I _R	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_{max}: ±3%

Reduction of module efficiency from 1.000 W/m² to 200 W/m²: <4%

Electrical data – typical (NOCT)

NOCT (Nominal Operating Cell Temperature): 800 W/m². NOCT. AM 1.5

Power rating	P _{max}	222 Wp	219 Wp	215 Wp	212 Wp	208 Wp	204 Wp
Rated voltage	V _{mpp}	32.65 V	32.47 V	32.27 V	32.09 V	31.91 V	31.73 V
Rated current	I _{mpp}	6.81 A	6.74 A	6.67 A	6.59 A	6.52 A	6.44 A
Open circuit voltage	V _{OC}	40.89 V	40.65 V	40.46 V	40.22 V	39.98 V	39.73 V
Short circuit current	I _{SC}	7.15 A	7.10 A	7.06 A	6.99 A	6.94 A	6.87 A

Thermal data

Tc of open circuit voltage	-0.33%/K
Tc of short circuit current	0.04%/K
Tc of power	-0.43%/K
NOCT (according to IEC 61215)	48°C ± 2°C

Measuring tolerance for all final data: ±10% (except P_{max} (STC) and NOCT)

SOLON Blue 270/11 (polycrystalline)



Electrical data – typical (STC)

STC (Standard Test Conditions): 1.000 W/m². (25 ± 2)°C. AM 1.5 in accordance with EN 60904-3

Power rating	P _{max}	300 Wp ¹⁾	295 Wp ¹⁾	290 Wp	285 Wp	280 Wp	275 Wp
Module efficiency		15.15%	14.90%	14.65%	14.39%	14.14%	13.89%
Rated voltage	V _{mpp}	37.03 V	36.77 V	36.50 V	36.25 V	35.95 V	35.70 V
Rated current	I _{mpp}	8.12 A	8.04 A	7.95 A	7.86 A	7.78 A	7.70 A
Open circuit voltage	V _{OC}	44.98 V	44.76 V	44.53 V	44.30 V	44.08 V	43.85 V
Short circuit current	I _{SC}	8.46 A	8.39 A	8.33 A	8.27 A	8.20 A	8.14 A
Maximum reverse current	I _R	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_{max}: ±3%

Reduction of module efficiency from 1.000 W/m² to 200 W/m²: <5%

Electrical data – typical (NOCT)

NOCT (Nominal Operating Cell Temperature): 800 W/m². NOCT. AM 1.5

Power rating	P _{max}	218 Wp	215 Wp	211 Wp	207 Wp	204 Wp	200 Wp
Rated voltage	V _{mpp}	33.70 V	33.46 V	33.22 V	32.99 V	32.72 V	32.49 V
Rated current	I _{mpp}	6.48 A	6.42 A	6.36 A	6.29 A	6.23 A	6.16 A
Open circuit voltage	V _{OC}	41.07 V	40.87 V	40.66 V	40.45 V	40.25 V	40.04 V
Short circuit current	I _{SC}	6.87 A	6.81 A	6.76 A	6.71 A	6.66 A	6.61 A

Thermal data

Tc of open circuit voltage	-0.32%/K
Tc of short circuit current	0.05%/K
Tc of power	-0.41%/K
NOCT (according to IEC 61215)	46°C ± 2°C

Measuring tolerance for all final data: ±10% (except P_{max} (STC) and NOCT)

¹⁾Available in limited amounts upon request.

SOLON 280/11, SOLON 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 ² , prefabricated with MC4-combinable plug
Application class	Class A at IEC 61730
Front glass	Transparent toughened safety glass, 4 mm
Solar 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

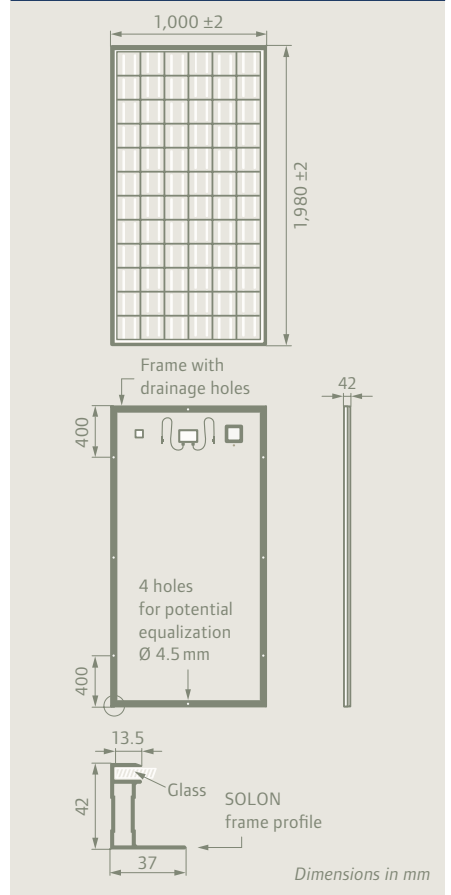
Guarantees and certifications

Product guarantee	10 years ²⁾
Performance guarantee	Guaranteed output of 95 % for 5 years, 90 % for 10 years, 87 % for 15 years, 83 % for 20 years and 80 % for 25 years ²⁾
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 and omissions. Electric data without guarantee.

²⁾ According to SOLON Product- and Performance Guarantee.

Drawing



CEC Approved



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Ammonia resistance tested
- Periodic Inspection

