

SOLON 220/16

Versatile Crystalline PV Modules.



- › 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
- › Attractive pricing for fast system payback
- › Certified ammonia resistance
- › Performance stability without PID losses

Made in Germany

SOLON 



The SOLON Industry Standard.

Thanks to our experience as a manufacturer of solar power system solutions and as a general contractor for power plant construction, we know exactly what makes a successful project: good quality and reliable service at fair prices. And that is exactly what the SOLON 220/16 – SOLON's industry standard – provides. With over 15 % efficiency, tested "Made in Germany" quality, free module recycling, and a direct point of contact at SOLON for service, every project becomes a success. It is that simple.

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 15.2 %

Highest Stability and Longevity.

- › Comprehensive lifespan tests, including outdoor tests and climate chamber storage
- › 34 mm anodized aluminum frame with twin-wall profile
- › Drainage holes for outstanding weather-resistance
- › Ultra-hardened, low-reflection 3.2 mm solar glass
- › Corrosion-proof components

Highest Quality.

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

Safety Included.

- › High mechanical durability: tested to 5,400 Pa (540 kg/m²)
- › Comprehensive SOLON warranties

SOLON Advantages:

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

¹⁾According to the SOLON Product and Performance Guarantee.

SOLON 220/16

SOLON Black 220/16 (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

		250 Wp ¹⁾	245 Wp	240 Wp	235 Wp	230 Wp
Power rating	P_{max}	250 Wp ¹⁾	245 Wp	240 Wp	235 Wp	230 Wp
Module efficiency		15.24%	14.94%	14.63%	14.33%	14.02%
Rated voltage	V_{mpp}	30.03 V	29.82 V	29.62 V	29.41 V	29.20 V
Rated current	I_{mpp}	8.34 A	8.22 A	8.11 A	7.99 A	7.88 A
Open circuit voltage	V_{OC}	37.27 V	37.01 V	36.75 V	36.48 V	36.22 V
Short circuit current	I_{SC}	8.74 A	8.65 A	8.56 A	8.47 A	8.38 A
Maximum reverse current	I_R	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

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

		179 Wp	176 Wp	172 Wp	169 Wp	165 Wp
Power rating	P_{max}	179 Wp	176 Wp	172 Wp	169 Wp	165 Wp
Rated voltage	V_{mpp}	26.92 V	26.73 V	26.55 V	26.36 V	26.17 V
Rated current	I_{mpp}	6.66 A	6.57 A	6.48 A	6.39 A	6.30 A
Open circuit voltage	V_{OC}	33.69 V	33.45 V	33.22 V	32.97 V	32.74 V
Short circuit current	I_{SC}	7.06 A	6.98 A	6.91 A	6.84 A	6.77 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 220/16 (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

		250 Wp ¹⁾	245 Wp	240 Wp	235 Wp	230 Wp
Power rating	P_{max}	250 Wp ¹⁾	245 Wp	240 Wp	235 Wp	230 Wp
Module efficiency		15.24%	14.94%	14.63%	14.33%	14.02%
Rated voltage	V_{mpp}	30.30 V	30.12 V	29.94 V	29.76 V	29.58 V
Rated current	I_{mpp}	8.28 A	8.16 A	8.03 A	7.90 A	7.78 A
Open circuit voltage	V_{OC}	37.38 V	37.20 V	37.03 V	36.86 V	36.69 V
Short circuit current	I_{SC}	8.71 A	8.59 A	8.47 A	8.36 A	8.24 A
Maximum reverse current	I_R	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

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

		182 Wp	178 Wp	175 Wp	171 Wp	167 Wp
Power rating	P_{max}	182 Wp	178 Wp	175 Wp	171 Wp	167 Wp
Rated voltage	V_{mpp}	27.57 V	27.41 V	27.25 A	27.08 V	26.92 V
Rated current	I_{mpp}	6.60 A	6.51 A	6.41 A	6.32 A	6.22 A
Open circuit voltage	V_{OC}	34.13 V	33.97 V	33.81 V	33.66 V	33.50 V
Short circuit current	I_{SC}	7.07 A	6.97 A	6.88 A	6.79 A	6.69 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 220/16

SOLON Black 220/16 and SOLON Blue 220/16.

Mechanical specifications

Dimensions (H x W x D)	1,640 x 1,000 x 34 mm
Weight	18.2 kg
Junction box	1 junction box with 3 bypass diodes
Cable	Solar cable, length 1,000 mm, 4 mm ² , prefabricated with MC4-combinable plug
Application class	Application class A (according to IEC 61730)
Front glass	Transparent toughened safety glass, 3.2 mm
Solar cells	60 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
Resistance against hail	Maximum diameter of 25 mm with impact speed of 83 km/h

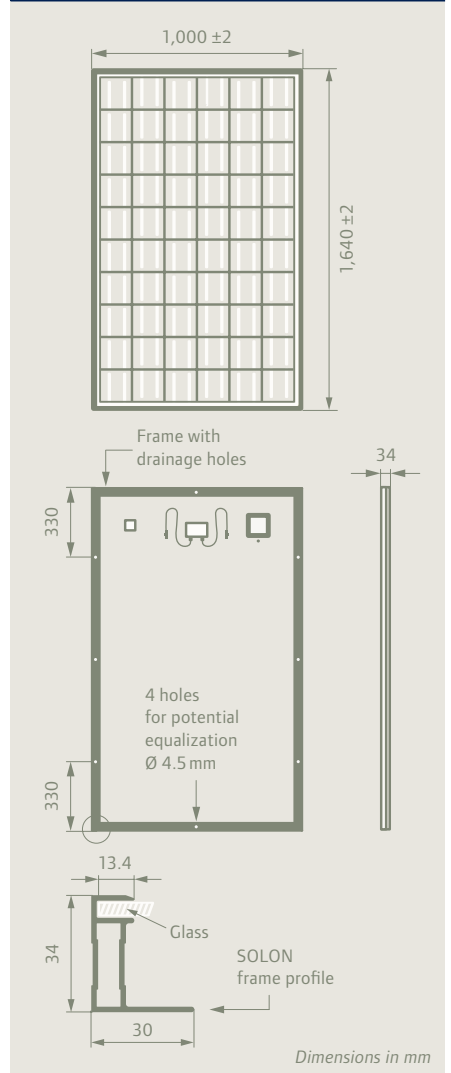
Guarantees and certifications

Product guarantee	10 years ²⁾
Performance guarantee	Guaranteed output of 95 % for 5 years, 90 % for 10 years, 87 % for 15, 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



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



CEC Approved

