

SOLON 220/16

*Crystalline PV Module
for all Scopes of Application.*

- 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



SOLON Quality for all Projects.

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
- 34 mm anodized aluminum frame with twin-wall profile
- Drainage holes for outstanding weather-resistance
- Corrosion-proof component

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 5,400Pa (550 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)

1) According to the SOLON Product and Performance Guarantee.

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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

Power rating	P _{max}	265 Wp ¹⁾	260 Wp ¹⁾	255 Wp	250 Wp	245 Wp	240 Wp
Module efficiency		16,16%	15,85%	15,55%	15,24%	14,94%	14,63%
Rated voltage	U _{mpp}	30,7 V	30,5 V	30,2 V	30,0 V	29,8 V	29,6 V
Rated current	I _{mpp}	8,67 A	8,57 A	8,45 A	8,34 A	8,22 A	8,11 A
Open circuit voltage	U _{oc}	38,1 V	37,8 V	37,5 V	37,3 V	37,0 V	36,8 V
Short circuit current	I _{sc}	9,01 A	8,92 A	8,83 A	8,74 A	8,65 A	8,56 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}	190 Wp	186 Wp	183 Wp	179 Wp	176 Wp	172 Wp
Rated voltage	U _{mpp}	27,5 V	27,3 V	27,1 V	26,9 V	26,7 V	26,6 V
Rated current	I _{mpp}	6,92 A	6,83 A	6,75 A	6,66 A	6,57 A	6,48 A
Open circuit voltage	U _{oc}	34,4 V	34,2 V	33,9 V	33,7 V	33,5 V	33,2 V
Short circuit current	I _{sc}	7,27 A	7,20 A	7,13 A	7,06 A	6,98 A	6,91 A

Thermal data

T_c of open circuit voltage

-0,33% /K

T_c of short circuit current

0,04% /K

T_c 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

Power rating	P _{max}	255 Wp ¹⁾	250 Wp	245 Wp	240 Wp	235 Wp	230 Wp
Module efficiency		15,55%	15,24%	14,94%	14,63%	14,33%	14,02%
Rated voltage	U _{mpp}	30,5 V	30,3 V	30,1 V	29,9 V	29,8 V	29,6 V
Rated current	I _{mpp}	8,40 A	8,28 A	8,16 A	8,03 A	7,90 A	7,78 A
Open circuit voltage	U _{oc}	37,5 V	37,4 V	37,2 V	37,0 V	36,9 V	36,7 V
Short circuit current	I _{sc}	8,83 A	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	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}	186 Wp	182 Wp	178 Wp	175 Wp	171 Wp	167 Wp
Rated voltage	U _{mpp}	27,8 V	27,6 V	27,4 V	27,3 V	27,1 V	26,9 V
Rated current	I _{mpp}	6,69 A	6,60 A	6,51 A	6,41 A	6,32 A	6,22 A
Open circuit voltage	U _{oc}	34,3 V	34,1 V	34,0 V	33,8 V	33,7 V	33,5 V
Short circuit current	I _{sc}	7,17 A	7,07 A	6,97 A	6,88 A	6,79 A	6,69 A

Thermal data

T_c of open circuit voltage

-0,32% /K

T_c of short circuit current

0,05% /K

T_c 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 (IP65)
Cable	Solar cable, length 1,000 mm, 4 mm ² , prefabricated with MC4-combinable plug (IP67)
Application class	Application class A (according to IEC 61730)
Front glass	Transparent toughened safety glass, 3.2 mm
Photovoltaic 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
Architectural integration system's temperature range	- 50 ° to + 130 °
Resistance against hail	Maximum diameter of 25 mm with impact speed of 83 km/h

Guarantees and certifications

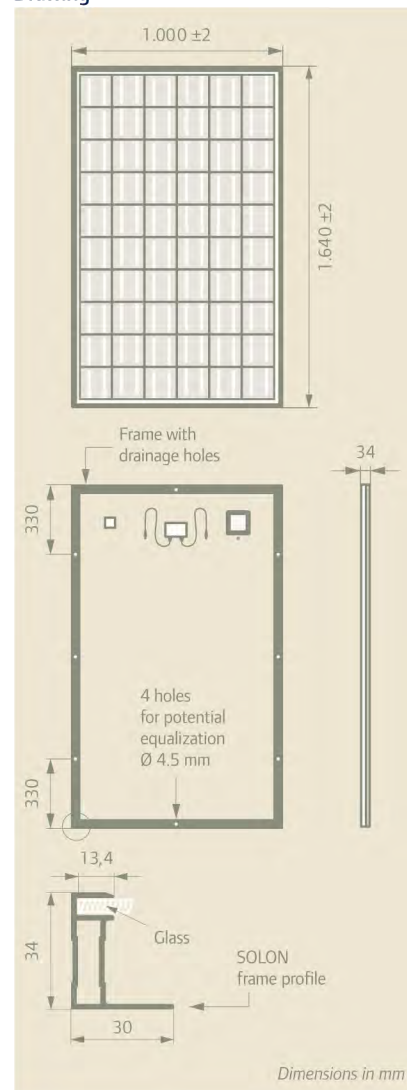
Product guarantee	10 years ²⁾
Performance guarantee	Guaranteed output of 95 % for 5 years, 90 % for 10 years, 87 % for 15, 83 % for 20 years and 80 % for 25 years ²⁾
Approvals and certificates	IEC 61215 Edition II, IEC 61730 (incl. Safety Class II), IEC 62716 (Ammonia resistance), IEC 68-2-52 (Salt mist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

This datasheet complies with the requirements of EN 50380:2003. Subject to modifications.

Electrical data without guarantee. SOLON is certified to ISO 9001, ISO 14001 and OHSAS 18001.

²⁾ According to SOLON Product and Performance Guarantee

Drawing



CEC Approved



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