



SOLON Black 230/02

Monocrystalline solar modules.

- › Recognized SOLON quality
- › High-performance modules with excellent efficiency
- › Highly efficient cell technologies provided by leading manufacturers
- › Optimal output over decades with very good low light response
- › 25 year SOLON performance guarantee
- › SOLON solar insurance

SOLON Black 230/02

Technical features:

- Highly efficient monocrystalline cell technology
- Module efficiency of up to 14 %
- Excellent low-light response
- 4-mm solar glass and twin-wall frame profile for highest load capacity
- Innovative SOLON connection technology for optimum heat dissipation
- Elegant module design

SOLON advantages:

- SOLON solar insurance for rooftop installations included*
- 25 year SOLON performance guarantee
- Individual consulting and support from our service team and our international distribution partners
- On time delivery
- Free module recycling
- Certified quality products (TÜV)

* Valid for Germany, Spain, Italy, Denmark, Poland, Czech Republic, Austria, Switzerland, France, Luxembourg, Belgium, Netherlands, Finland, Sweden

Electrical data – typical

Capacity rating ($\pm 3\%$)	P_{max}	230 Wp**	225 Wp	220 Wp	215 Wp
Module efficiency		14.02 %	13.72 %	13.41 %	13.11 %
Rated voltage	U_{mpp}	28.80 V	28.30 V	28.10 V	27.50 V
Rated current	I_{mpp}	8.00 A	7.95 A	7.85 A	7.82 A
Open circuit voltage	U_{oc}	36.40 V	36.00 V	35.80 V	35.60 V
Short circuit current	I_{sc}	8.75 A	8.70 A	8.60 A	8.59 A

The above values are effective for an irradiation of 1,000 W/m², AM 1.5, and a cell temperature of 25°C (standard test conditions). They are subject to production tolerances. The modules can be delivered with their characteristic data series which have to be used for the detailed system configuration.

Temperature coefficient

Tc of open circuit voltage	-0.33 %/K
Tc of short circuit current	0.03 %/K
Tc of power	-0.43 %/K

Mechanical specification

Dimensions (H x W x D)	1,640 x 1,000 x 42 mm
Weight	23.5 kg
Junction box	1 SOLON ED II junction box with 3 bypass diodes
Cable	Solar cable, 900 mm length, 4 mm ² , prefabricated with MC-4 plug
Front glass	White toughened safety glass, 4 mm
Solar cells	60 x monocrystalline Si 6.2" (156 mm x 156 mm), 2BB & 3BB
Cell encapsulation	EVA (ethylene vinyl acetate)
Back site	Black composite film
Frame	Anodized aluminum frame with twin-wall profile and drainage holes

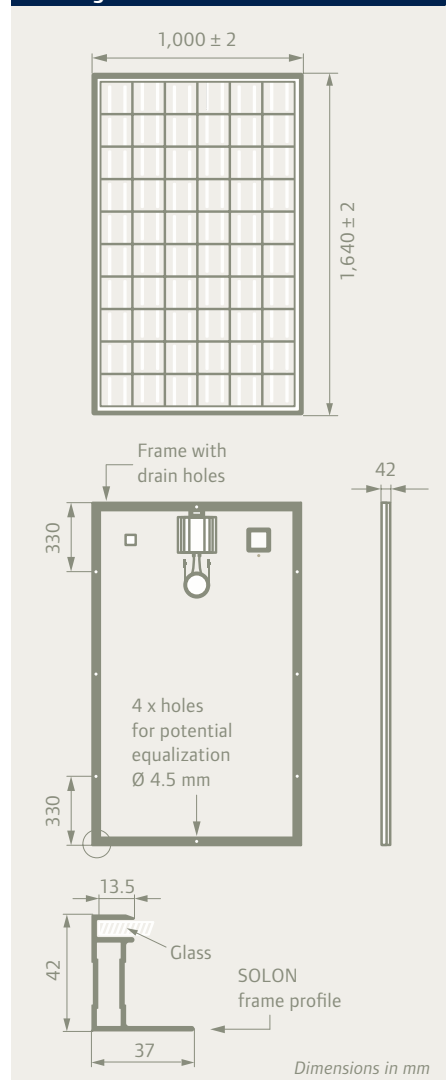
Permissible operating conditions

Temperature range	-40 °C to + 85 °C
Maximum system voltage	1,000 V
Maximum surface load capacity	Tested up to 5,400 Pa according to IEC 61215 (advanced test)
Resistance against hail	Maximum diameter of 28 mm with impact speed of 86 km/h

Guarantees and certifications

Product warranty	2 years
Performance guarantee	Guaranteed output of 90% for 10 years and 80% for 25 years
Approvals and certificates	TÜV: IEC 61215 Edition II, IEC 61730

Drawing



Your specialty retailer

For more information on SOLON products visit us on www.solon.com. We are glad to inform you personally as well.

SOLON SE
Am Studio 16
12489 Berlin · Germany

Phone +49 30 81879-0
Fax +49 30 81879-9999
E-Mail components@solon.com

SOLON S.p.A.
Via dell'Industria e dell'Artigianato 2
35010 Carmignano di Brenta PD · Italy

Phone +39 049 9458200
Fax +39 049 9458299
E-Mail solon.it@solon.com