



SOLON Black 230/01

Monocrystalline solar modules.

- › Recognized SOLON quality
- › High-performance modules with excellent efficiency
- › Highly efficient cell technologies provided by leading manufacturers
- › 10 year product guarantee, 25 year, 5-stage performance guarantee
- › German design and products "Made in U.S.A."

SOLON Black 230/01

Technical features:

- Highly efficient monocrystalline cell technology
- Module efficiency of up to 14.6 %
- 0.16 in. (4 mm) solar glass and twin-wall frame profile for highest load capacity

SOLON advantages:

- 10 year product guarantee
- 25 year, 5-stage performance guarantee
- Individual consulting and support from our service team and our international distribution partners
- Certified quality products (UL listed)
- Extensive manufacturing and development experience

Electrical specifications – typical

Capacity rating ($\pm 3\%$)	P_{max}	240 Wp	235 Wp	230 Wp	225 Wp
Module efficiency		14.63 %	14.33 %	14.02 %	13.72 %
Rated voltage	V_{mpp}	29.62 V	29.41 V	29.20 V	29.00 V
Rated current	I_{mpp}	8.11 A	7.99 A	7.88 A	7.76 A
Open circuit voltage	V_{oc}	36.75 V	36.48 V	36.22 V	35.96 V
Short circuit current	I_{sc}	8.56 A	8.47 A	8.38 A	8.29 A
Series fuse rating	I_R	15 A	15 A	15 A	15 A
Maximum system voltage	V_{DC}	600 V	600 V	600 V	600 V

The above values are effective for irradiation of 1,000 W/m², AM 1.5 and a cell temperature of 69.80°F (25°C) according to STC. They are subject to production tolerances. The modules can be delivered with their characteristic data for the detailed system configuration.

Temperature coefficients (Tc)

Tc of open circuit voltage	-0.37%/K
Tc of short circuit current	0.03%/K
Tc of power	-0.50%/K

Mechanical specifications

Dimensions (H x W x D)	64.57 x 39.37 x 1.65 in. (1,640 x 1,000 x 42 mm)
Weight	51.8 lbs (23.5 kg)
Junction box	1 Tyco junction box with bypass diodes
Cable	USE-2 cable, length 39.37 in. (1,000 mm), 12 AWG (4 mm ²), prefabricated with Tyco Solarlok connector
Front glass	Transparent tempered safety glass, 0.16 in. (4 mm)
Solar cells	60 cells, monocrystalline, 6.14 x 6.14 in. (156 x 156 mm)
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Back side	White composite film
Fire class	C
Frame	Anodized aluminum frame with twin-wall profile and drainage holes

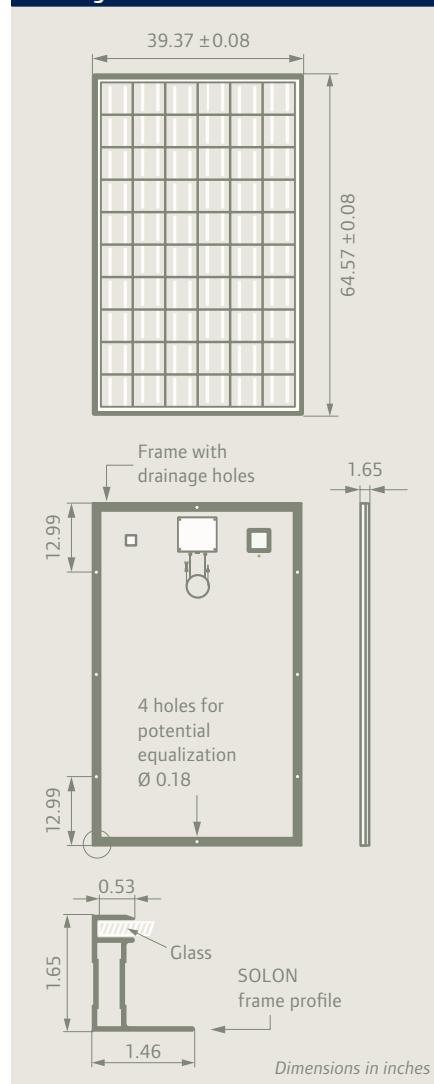
Permissible operating conditions

Temperature range	-40°F to +185°F (-40°C to +85°C)
NOCT	116.6°F \pm 3.6°F (47°C \pm 2°C)
Maximum surface load capacity	Tested up to 5,400 Pa according to IEC 61215 (advanced test)
Resistance against hail	Max. diameter 1.1 in. (28 mm), with impact speed 53.4 mph (86 km/h)

Guarantees and certifications

Product warranty	10 years
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
Approvals and certificates	UL and UL-C listed, CEC and FSEC registered

Drawing



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