

SOLON Black 230/01

Monocrystalline solar modules.



- › Recognized SOLON quality
- › High-performance monocrystalline modules
- › Efficiency of up to 14.6%
- › 0.16 in. (4 mm) solar glass and twin-wall frame profile for highest load capacity
- › 10 year product guarantee
- › 25 year, 5-stage performance guarantee

What's next?

SOLON Black 230/01

Electrical specifications – typical

1,000 W/m², 77 ± 3.6°F (25 ± 2°C), AM 1.5 (STC)

	P _{max}	240 Wp	235 Wp	230 Wp	225 Wp
Capacity rating (± 3%)					
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 subject to the mentioned capacity rating tolerance. The modules can be delivered with their characteristic data for the detailed system configuration.

Reduction of module efficiency from 1,000 W/m² to 200 W/m²: < 5%

Electrical specifications – typical

800 W/m², NOCT, AM 1.5

	P _{max}	172 Wp	169 Wp	165 Wp	161 Wp
Capacity rating (± 3%)					
Rated voltage	V _{mpp}	26.55 V	36.36 V	26.17 V	25.99 V
Rated current	I _{mpp}	6.48 A	6.39 A	6.30 A	6.21 A
Open circuit voltage	V _{OC}	33.22 V	32.97 V	32.74 V	32.50 V
Short circuit current	I _{SC}	6.91 A	6.84 A	6.77 A	6.69 A

Temperature coefficients (Tc)

Tc of open circuit voltage	-0.36 %/K
Tc of short circuit current	0.04 %/K
Tc of power	-0.47 %/K

10% relative error for all final data – except NOCT and P_{max} (STC)

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	51.81 lbs (23.5 kg)
Junction box	1 Tyco junction box with bypass diodes
Cable	PV wire, 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 aluminium frame with twin-wall profile and drainage holes

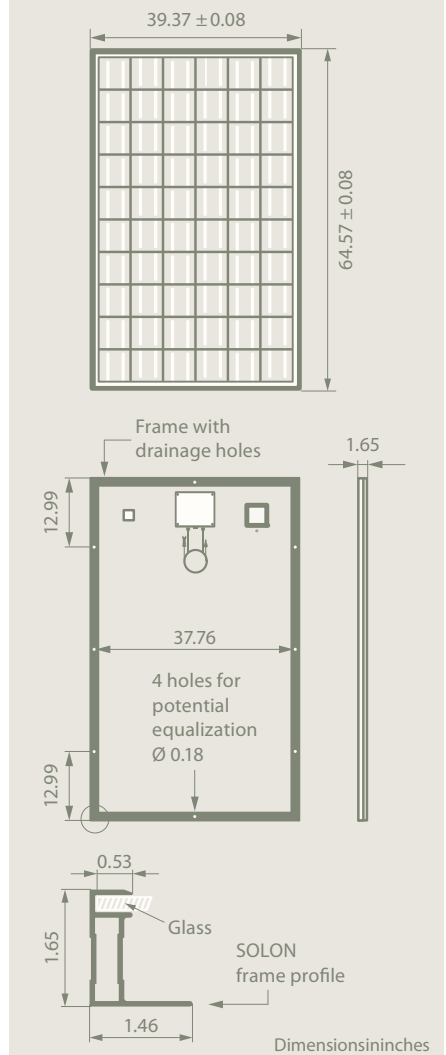
Permissible operating conditions

Temperature range	-40°F to + 185°F (-40°C to + 85°C)
NOCT	118.4°F ± 3.6°F (48°C ± 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 53.44 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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