

# SOLON Black 280/11

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
- > 10 year product guarantee, 25 year performance guarantee
- > SOLON solar insurance



## SOLON Black 280/11

#### Technical features:

- · Highly efficient monocrystalline cell technology
- Module efficiency of up to 14.7 %
- · Very good low light response
- 4 mm solar glass and twin-wall frame profile for highest load capacity

### SOLON advantages:

- SOLON solar insurance for rooftop installations included 1)
- 10 year product guarantee, 25 year performance guarantee
- · Free module recycling

#### Electrical data - typical

Capacity rating (±3 %)	$P_{max}$	290 Wp	285 Wp	280 Wp	275 Wp	270 Wp	265 Wp	260 Wp
Module efficiency		14.65%	14.39%	14.14%	13.89%	13.64%	13.38%	13.13%
Rated voltage	$U_{mpp}$	35.10 V	34.80 V	34.40 V	33.90 V	33.60 V	33.40 V	33.00 V
Rated current	I <sub>mpp</sub>	8.25 A	8.20 A	8.15 A	8.10 A	8.05 A	7.95 A	7.90 A
Open circuit voltage	$U_{oc}$	43.10 V	42.8 V	42.50 V	42.20 V	41.50 V	41.20 V	41.00 V
Short circuit current	I <sub>sc</sub>	9.10 A	9.05 A	8.95 A	8.85 A	8.75 A	8.70 A	8.65 A

The above values are effective for an irradiation of 1,000  $W/m^2$ , AM 1.5, and a cell temperature of 25°C according to STC. 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 coefficients (Tc)

Tc of open circuit voltage	-0.37 %/K
Tc of short circuit current	0.03 %/K
Tc of power	-0.51 %/K

#### Mechanical specification

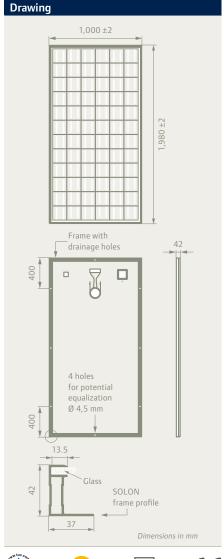
Dimensions (H x W x D)	1,980 x 1,000 x 42 mm
Weight	30 kg
Junction box	1 box with 3 bypass diodes
Cable	Solar cable, length 1,500 mm, 4 mm², prefabricated with plug, type MC-4
Application class	Class A at IEC 61730
Front glass	Transparent toughened safety glass, 4 mm
Solar cells	72 cells, monocrystalline Si 6.2" (156 x 156 mm)
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Back side	Composite film
Frame	Anodised aluminium frame with twin-wall profile and drainage holes

#### Permissible operating conditions

Temperature range	-40°C to +85°C
NOCT	47°C ±2°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

#### Operating conditions

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	TÜV: IEC 61215 Edition II, IEC 61730 (incl. Safety Class II)











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