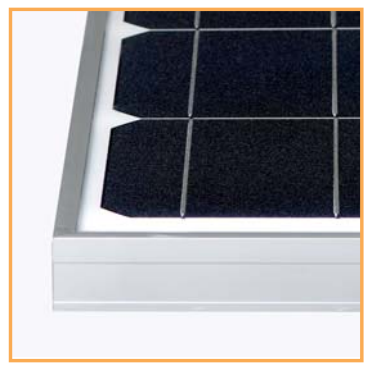
Solaria

PV Modules S6M-2G

2nd Generation Monocrystalline PV modules S6M-2G 220, 225, 230, 235 and 240 Wp.



Certifications

Manufacturing in its own facilities certified according to ISO 14001 and 9001 standards.

Certified according to IEC 61215:2005 standard (manufacturing approval and design qualification).

Certified according to IEC 61730-1 and IEC 61730-2: 2004 standards (electrical safety qualification).

Electrical Safety Class II.

Guarantees

- 5 years: materials.
- 10 years: 90% of the nominal power.
- 25 years: 80% of the nominal power.

Technical characteristics

High efficiency, of up to 14,70 %, with **positive tolerances.**

Snow load (5.400 Pa).

Light module, 19 kg weight.

Identification by an encapsulated serial number.

Connector's special protection until installation.

Key facts of Solaria

The only Spanish solar photovoltaic company listed on the Stock Exchange.

Vertically integrated company, with full control over the whole production process.

Design and production of monocrystalline and polycrystalline sillicon cells.

Solaria intensively uses its modules in self operated plants and turnkey solutions for third parties.

PV Modules S6M-2G

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Electrical characteristics of the S6M-2G series(*)

		S6M2G220	S6M2G225	S6M2G230	S6M2G235	S6M2G240
Maximum power (- 0, + 5Wp)	P_{max}	220 Wp	225 Wp	230 Wp	235 Wp	240 Wp
Voltage at maximum power	V_{mpp}	28,84 V	29,15 V	29,46 V	29,75 V	30,05 V
Current at maximum power	I_{mpp}	7,63 A	7,72 A	7,81 A	7,90 A	7,99 A
Open circuit voltage	V_{oc}	36,62 V	36,86 V	37,10 V	37,34 V	37,58 V
Short circuit current	I_{sc}	8,39 A	8,42 A	8,44 A	8,47 A	8,49 A
Module efficiency	E_{fm}	13,5 %	13,8 %	14,1 %	14,4 %	14,7 %
Temperature coefficient of I_{sc}				+ 0,015 %/K		
Temperature coefficient of V_{oc}				- 0,31 %/K		
Temperature coefficient of P_{max}				- 0,46 %/K		
Maximum reverse current				20 A		
Maximum system voltage (IEC)				1000 V (A Class)		

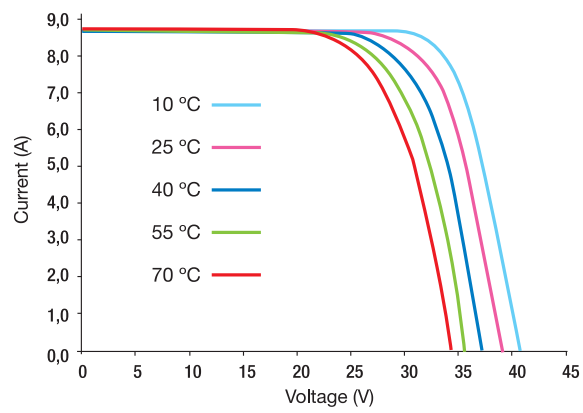
Efficiency reduction in a partial loading performance: lower than 5 % (200 W/m², 25ºC).

(*) Electric values under Standard Test Conditions (STC) with an irradiation value of 1000 W/m², at an AM 1,5 solar spectrum and a temperature of 25ºC.
The measurement tolerance of the electric parameters is ± 2,5 %

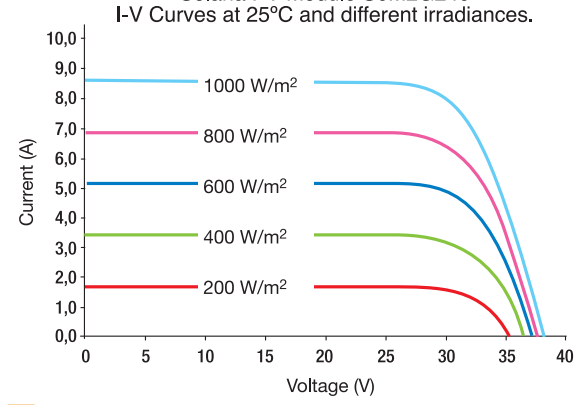
Electrical characteristics under NOCT conditions (800 W/m², AM 1,5, 20ºC, 1m/s) at 46 ± 2ºC

		S6M2G220	S6M2G225	S6M2G230	S6M2G235	S6M2G240
Maximum power (- 0, + 5Wp)	P_{max} (Wp)	162,1	166,1	169,7	173,4	177,1
Voltage at maximum power	V_{mpp} (V)	26,99	27,27	27,55	27,83	28,11
Current at maximum power	I_{mpp} (A)	6,01	6,09	6,16	6,23	6,30
Open circuit voltage	V_{oc} (V)	33,96	34,18	34,40	34,63	34,85
Short circuit current	I_{sc} (A)	6,75	6,77	6,79	6,81	6,83

Solaria PV Module S6M2G240
I-V Curves at 1000 W/ m² and different temperatures.



Solaria PV Module S6M2G240
I-V Curves at 25ºC and different irradiances.



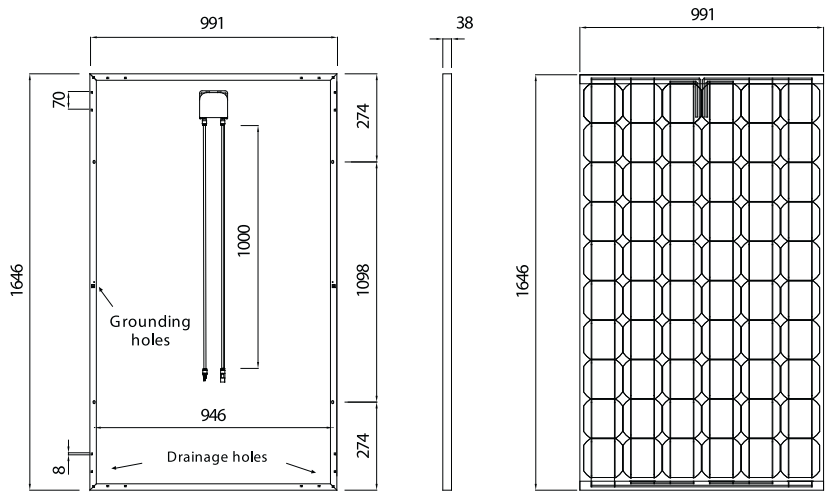
Constructive and dimensional characteristics

Dimensions (± 3 mm)	1.646 x 991 x 38 mm.
Weight (kg)	19 kg.
Solar Cells	60 quasi – squared monocrystalline cells of 6 inches, texturised and antireflective coated. **Connection:** all the cells are connected in series and configured as a 6x10 matrix.
Construction	**Front:** high transmission tempered glass 3,2 mm thick. **Rear:** highly insulating backsheet. **Encapsulant:** EVA (Ethylene - Vinyl - Acetate). **Frame:** anodised Aluminium with water drainage holes.

Electrical connections

Junction box	IP 65.
Protection diodes	Including 3 by-pass diodes of 11 A.
Connectors	100 cm long black solar cable and fast connectors IP67.

Mechanical characteristics



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This datasheet follows IEC 50380 standards.
Data in this technical datasheet is subject to change without prior warning by Solaria.