



Monocrystalline PV modules S5M+ of 225, 230, 235, 240, 245 y 250 Wp.

Product Certifications

Factory Inspection Certification according to GSE requirements.

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

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



Company Certifications



European manufacturing in its own facilities certified according to OHSAS 18001, ISO 14001 and 9001 standards.

Guarantees

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



Technical characteristics

High efficiency, of up to 15%, **with positive tolerances**. (-0, +5Wp).
Light module weighing 22 kg with encapsulated serial number.
Snow load (5.400 Pa).

Key facts of Solaria

The only Spanish solar photovoltaic company listed on the Madrid Stock Exchange.
Vertically integrated company, with full control over the whole production process.
Design and production of monocrystalline and polycrystalline silicon cells.
Solaria intensively uses its modules in self operated plants and large facilities turnkey solutions for third parties.

Electrical characteristics of the S5M+ series (*)

		S5M+225	S5M+230	S5M+235	S5M+240	S5M+245	S5M+250
Maximum power (-0,+5Wp)	P_{max}	225 Wp	230 Wp	235 Wp	240 Wp	245 Wp	250 Wp
Voltage at maximum power	V_{mpp}	47,52 V	48,02 V	48,50 V	48,98 V	49,40 V	49,90 V
Current at maximum power	I_{mpp}	4,74 A	4,79 A	4,85 A	4,90 A	4,96 A	5,01 A
Open circuit voltage	V_{oc}	58,57 V	58,74 V	58,91 V	59,08 V	59,25 V	59,42 V
Short circuit current	I_{sc}	5,18 A	5,23 A	5,29 A	5,34 A	5,40 A	5,45 A
Module efficiency	E_{fm}	13,5%	13,8%	14,1%	14,4%	14,7%	15,0%

Temperature coefficient of I_{sc} +0,028%/K

Temperature coefficient of V_{oc} -0,31%/K

Temperature coefficient of P_{max} -0,48%/K

Maximum reverse current 20 A

Maximum system voltage (IEC) 1000 V (Clase A)

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

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

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

		S5M+225	S5M+230	S5M+235	S5M+240	S5M+245	S5M+250
Maximum power (-0,+5Wp)	P_{max} (Wp)	164,47	167,89	171,78	175,24	178,97	182,58
Voltage at maximum power	V_{mpp} (V)	42,83	43,27	43,71	44,14	44,52	44,97
Current at maximum power	I_{mpp} (A)	3,84	3,88	3,93	3,97	4,02	4,06
Open circuit voltage	V_{oc} (V)	53,61	53,77	53,92	54,08	54,23	54,39
Short circuit current	I_{sc} (A)	4,15	4,19	4,24	4,28	4,32	4,37

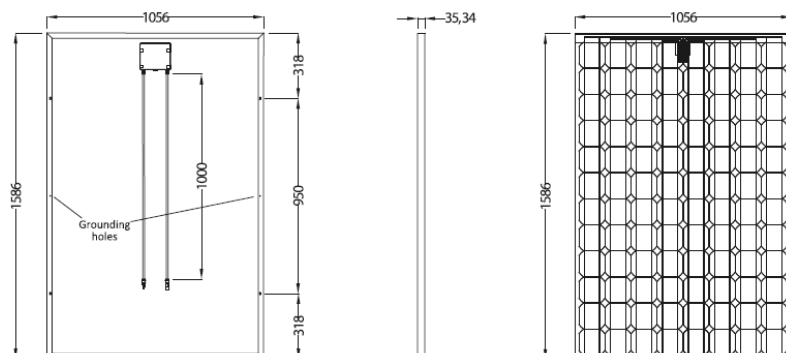
Constructive and dimensional characteristics

Dimensions (± 3 mm) 1586 x 1056 x 35 mm.
 Weight (Kg) 22 kg.
 Solar Cells 96 cells of 5" quasi-squared, silicon, monocrystalline cells, texturised and antireflective coated.
Connection: all the cells are connected in series and configured for an 8x12 matrix.
Construction
Front: high transmission tempered glass 4 mm thickness.
Rear: high UV radiation and humidity resistance insulating backsheet.
Encapsulant: EVA (Ethylene - Vinyl - Acetate).
Frame: anodised aluminium.

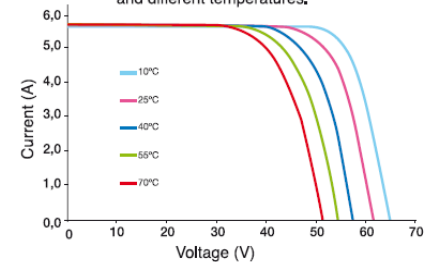
Electrical connections

Junction box IP 65.
 Protection diodes Including removable by-pass diodes.
 Connectors 100 cm long cables (Ø4 mm²) and fast MC4plus IP67 connectors or compatible.

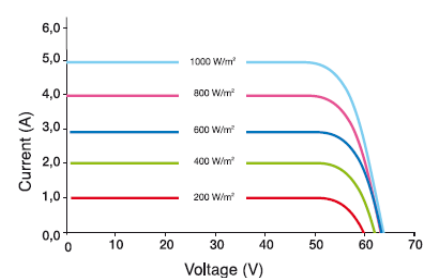
Mechanical characteristics



Solaria PV Module S5M+250
I - V Curves at 1000 W/m² and different temperatures.



Solaria PV Module S5M+250
I - V Curves at 25°C and different irradiances.



Distributor Stamp

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