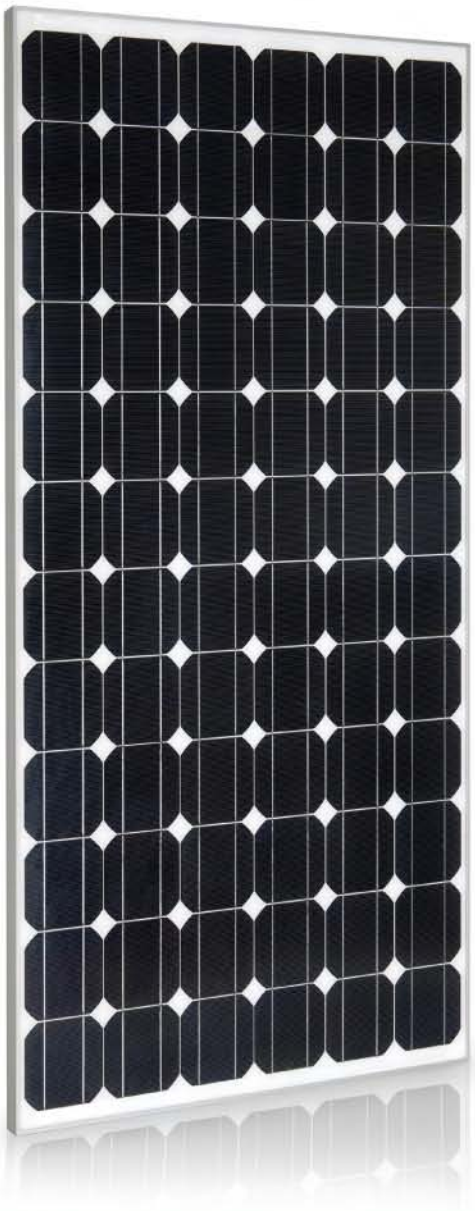
Solaria

Modules S5M

Monocrystalline Solar Modules S5M 155, 160, 165, 170 and 175Wp



Certifications

Manufacturing in its own installations, certified according to AENOR 14001 and 9001 standards.

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

Certified according to IEC 61730-1 and 61730-2 standards (modules safety qualification).

Electrical safety Class II.

Guarantees

5 years: labour and materials.

10 years: 90% of the nominal power.

25 years: 80% of the nominal power.

Technical characteristics

High efficiency, of up to 14.60%.

Positive tolerances.

Tempered solar glass, 4mm thick with high transmissivity.

Differential characteristics of Solaria

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

Vertically integrated company, maintaining absolute control of the photovoltaic process.

Design and production of monocrystalline and polycrystalline silicon cells.

Modules S5M

Solaria

Electrical characteristics (*)

		S5M155	S5M160	S5M165	S5M170	S5M175
Maximum Power (-0,+5Wp)	P_{max}	155 Wp	160 Wp	165 Wp	170 Wp	175 Wp
Voltage at maximum power	V_{pm}	34,52 V	34,86 V	35,69 V	35,75 V	36,16 V
Current at maximum power	I_{pm}	4,49 A	4,59 A	4,62 A	4,77 A	4,84 A
Open circuit voltage	V_{oc}	43,5 V	43,71 V	44,22 V	44,37 V	44,45 V
Short circuit current	I_{sc}	4,95 A	5,08 A	5,11 A	5,16 A	5,18 A
Module Efficiency	E_{fm}	12,39%	12,79%	13,19%	13,59%	13,98%

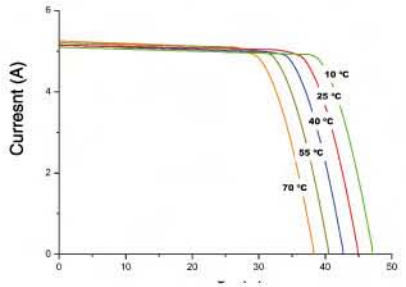
NOCT (800 W/m2, 20ºC, 1m/s)	47±2ºC
Temperature Coefficient of I_{sc}	+0,043%/K
Temperature Coefficient of V_{oc}	-0,31%/K
Temperature Coefficient of P_{max}	-0,44%/K
Maximum Voltage System	1000V

(*) 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%.

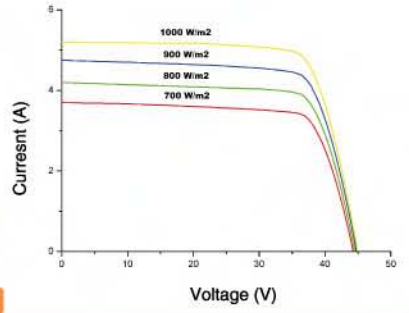
Constructive and dimensional characteristics

Dimensions (±3 mm)	1.584 x 790 x 35 mm.
Weight (Kg)	14,3 kg.
Solar Cells	72 cells of 5" quasi-squared, silicon, monocrystalline cells, texturised and antireflective coated. Connection: all the cells are connected in series and configured for an 6x12 matrix.
Construction	Front: high transmission tempered glass 3,2 mm thickness. Rear: insulating backsheet. Encapsulant: EVA (Ethylene - Vinyl - Acetate). Frame: anodised aluminium with water drainage hole.

Solaria PV Module S5M 175
I - V Curves at 1000 W/m2
and different temperatures.



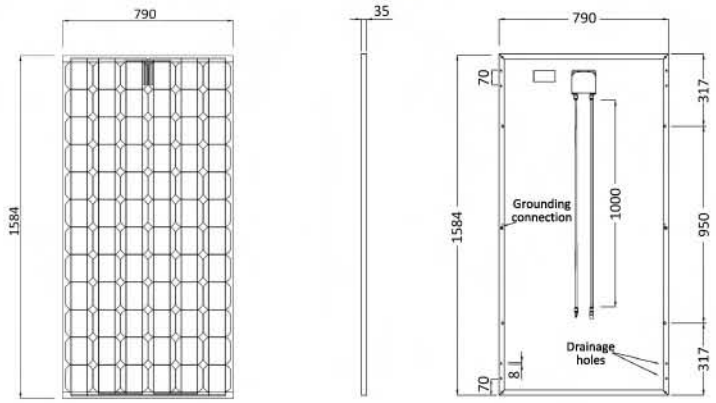
Solaria PV Module S5M 175
I - V Curves at 25ºC and different irradiances.



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



Solaria Energía y Medio Ambiente
C/ Princesa 2 – 3ª planta
28008 Madrid – Spain.
contact@solariaenergia.com

Manufacturing plant
Pol. Ind. La Nava II
C/ Alemania, 6
13500 Puertollano,
Ciudad Real-Spain.

www.solariaenergia.com