

Product data sheet

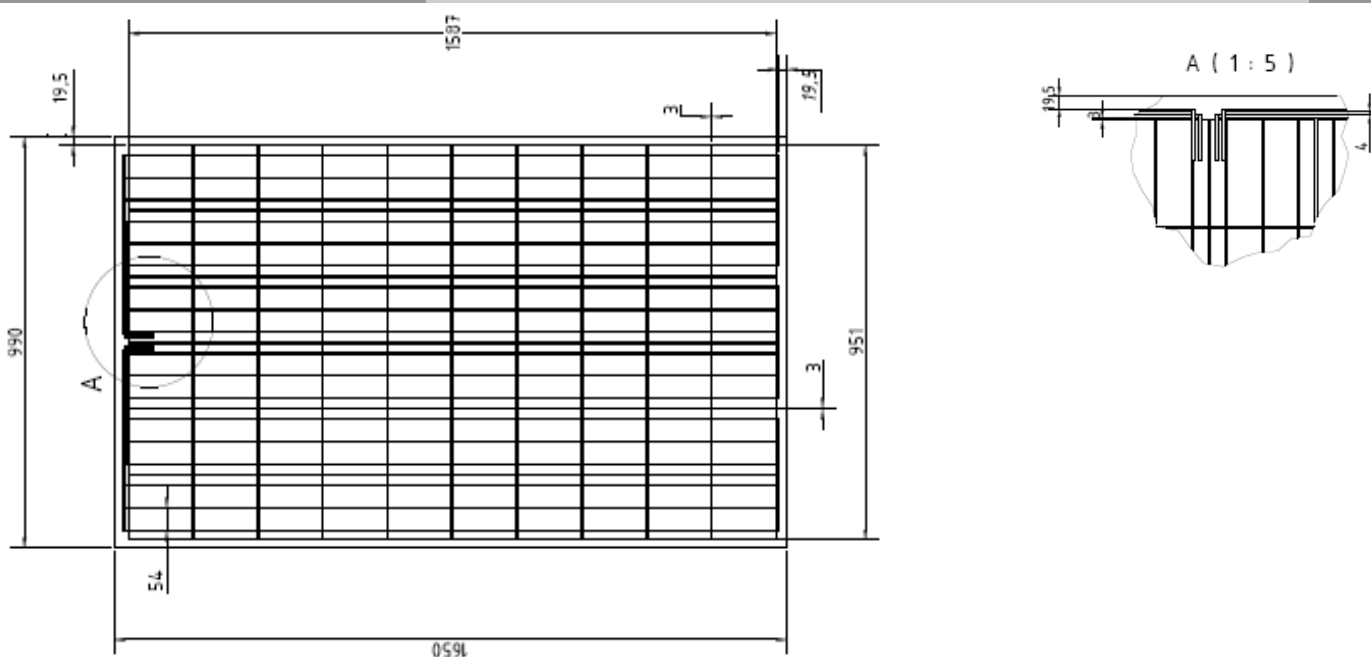
multicrystalline silicon solar module

General Data

Module Technology:	Glass/EVA/Tedlar film	Cells:	60 Multicrystalline solar cells, square 156 mm
Cover material:	High transparency tempered solar glass 3.2 mm with anti-reflection coating	Electrical connections:	Tyco junction box with Tyco plug connector cables, 2 x 1.00 metres, 4 mm ²
Encapsulation:	EVA - solar cells - EVA	Bypass diodes:	3
Back material:	Tedlar - Polyester - Tedlar, white	Maximum System voltage:	1000 V
Qualifications:	TBC - IEC 61215 Ed. 2, IEC 61730 (incl Safety Class II)		

Mechanical Data

Dimensions (L x W x H)	1680 x 990 x 42 mm	Mechanical ratings:	Suction pressure of 2000 Pa approved (Wind speed 130 km/h with safety factor 3)
Weight:	20.8 kg		Load of 5000 Pa approved
IP protection level:	IP 65		

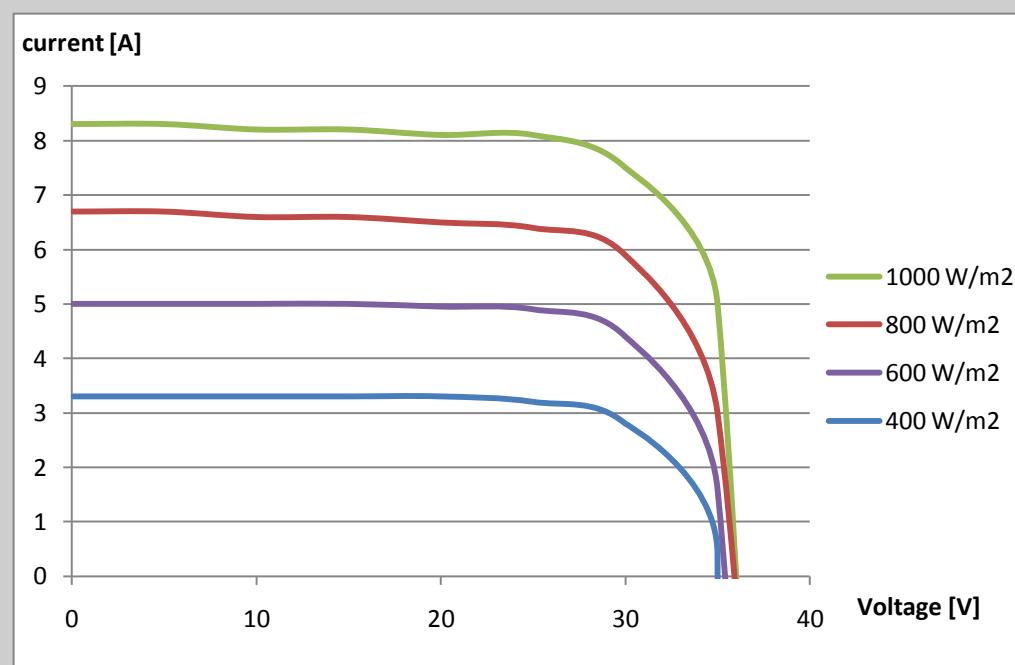


Electrical properties

Class		1	2	4	5	6	7	8
STC (Standard Test Conditions: Radiation Strength 1000 W/m ² , Spectral Distribution AM 1.5G, temperature 25±2 degrees C, in accordance with EN 60904-3)								
Nominal Power P _{max} *	[Wp]	210	215	220	225	230	235	240
Nominal Voltage U _{mpp}	[V]	28.6	29.0	29.5	29.9	30.1	30.5	30.6
Nominal Current I _{mpp}	[A]	7.30	7.39	7.47	7.56	7.59	7.70	7.77
Open Circuit Voltage U _{oc}	[V]	36.4	36.7	36.9	37.1	37.3	37.5	37.6
Short Circuit Current I _{sc}	[A]	7.60	7.74	7.88	8.03	8.09	8.22	8.28
Module efficiency	[%]	12.6%	12.9%	13.2%	13.6%	13.8%	14.1%	14.3%
I _r	[A]	16	16	17	17	17	17	17
NOTC (Normal Operation Cell Temperature: Radiation Strength 800 W/m ² , AM 1.5G, Cell operating temperature of 45°C)								
Nominal Power P _{max} *	[Wp]	154	159	164	168	170	175	177
Nominal Voltage U _{mpp}	[V]	26.2	26.6	27.1	27.5	27.8	28.1	28.2
Nominal Current I _{mpp}	[A]	5.90	5.97	6.04	6.11	6.13	6.22	6.27
Open Circuit Voltage U _{oc}	[V]	33.4	33.6	33.9	34.1	34.2	34.5	34.6
Short Circuit Current I _{sc}	[A]	6.14	6.25	6.36	6.48	6.53	6.64	6.68
Performance at Typical Australian condition (Radiation Strength 1050 W/m ² , AM 1.5G, Cell operating temperature of 60°C)								
Nominal Power P _{max} *	[Wp]	192	198	204	209	212	218	220
Nominal Voltage U _{mpp}	[V]	24.6	25.0	25.5	25.9	26.2	26.5	26.6
Nominal Current I _{mpp}	[A]	7.80	7.89	7.98	8.07	8.11	8.22	8.29
Open Circuit Voltage U _{oc}	[V]	31.8	32.1	32.3	32.5	32.7	32.9	33.0
Short Circuit Current I _{sc}	[A]	8.12	8.26	8.41	8.57	8.63	8.77	8.83

* - Measurement tolerance on power measurements +/- 3%

Electrical curves



Temperature coefficients

Operating Temperature Range	-40 to +80 degrees C	Power	[%/K]	-0.46
Ambient Temperature Range	-40 to +45 degrees C	Current	[%/K]	-0.35
		Voltage	[%/K]	0.05