ANTARIS SOLAR Germany

THE AS M "PREMIUM" SERIES FROM ANTARIS SOLAR



The monocrystalline high-performance modules in the AS M "Premium" series are suitable for roof-mounted and roof-integrated installation for all types of roofs. In a 2010 comparison test, the AS M series module was awarded the best result of 1.1 for achieving the highest energy yield per individual module*. The test, carried out by the TEC Institute under real conditions, compared modules from a series of reputable manufacturers. Impressively, the rated output tolerance to rated output of our Premium range is +3%.

On the AS M "PREMIUM" series, we grant a 30-year performance guarantee and a 12-year product guarantee.

30 years performance warranty

12 years PRODUCT WARRANTY



Also available **IN BLACK**

TEST 2012 AMMONIAC SAFE

TEST WINNER 02/2012 ANTARIS AS M 190 VERY GOOD

HIGH resistance to snow load

CO_2 CE TÜVRheinland PI CON ECO LABEL MCS

* Test results from the TEC Institute

AS M "PREMIUM" SERIES

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LIVING BY THE SUN!

ELECTRICAL PROPERTIES (STC*)

ANTARIS SOLAR AS M series		M 200	M 205	M 210
Rated output (Pmax)	[Wp]	200	205	210
Voltage with Pmax (Vmpp)	[V]	36.9	37.1	37.3
Current with Pmax (Impp)	[A]	5.43	5.53	5.64
Open circuit voltage (Voc)	[V]	45.2	45.4	45.6
Short circuit current (Isc)	[A]	5.72	5.81	5.90
Output tolerance to rated output		–0% / +3%		
Max. reverse current (I_R)	[A]	10		
Max. system voltage	[V]	IEC 1000		
Degree of module effectiveness	[%]	15.67	16.06	16.45
Application category		(as per IEC 61730) A		
Fire category		(as per IEC 61730) C(UL)		
Protection rating		(as per IEC 61730) II		

STC * (Standard test conditions): Irradiation 1000 W/m², module temperature 25°C, air mass 1.5

ELECTRIC OUTPUT WITH NOCT

ANTARIS SOLAR AS M series		M 200	M 205	M 210
Rated output (Pmax)	[Wp]	146	150	153
Voltage with Pmax (Vmpp)	[V]	33.6	33.8	33.9
Current with Pmax (Impp)	[A]	4.35	4.44	4.52
Open circuit voltage (Voc)	[V]	41.6	41.8	42
Short circuit current (Isc)	[A]	4.63	4.71	4.78

NOCT: Irradiation 800 W/m², air 20°C, module temperature 45 +/– 2°C, air mass 1.5

TEMPERATURE PROPERTIES

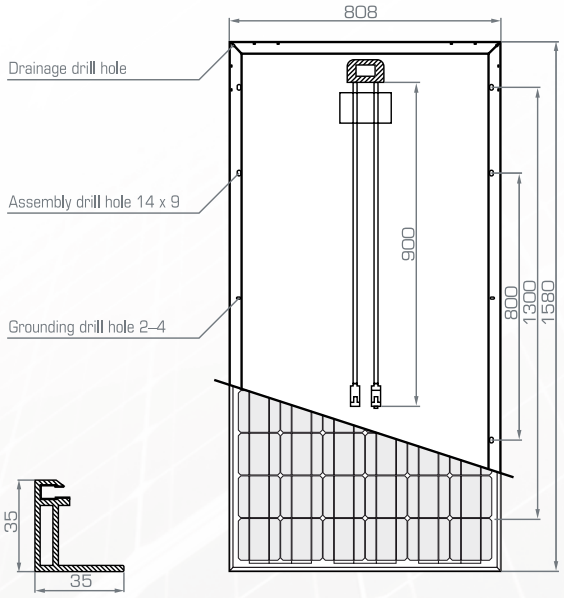
NOCT**	45 +/– 2°C
Temperature coefficient Pmax	–0.43 %/°C
Temperature coefficient Voc	–0.33 %/°C
Temperature coefficient Isc	0.056 %/°C
Operating temperature	from -40 to +85°C

NOCT**: Nominal cell operating temperature sun 800 W/m², air 20°C, wind speed 1m/s

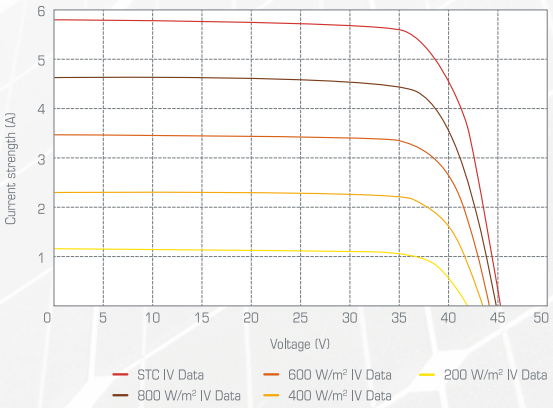
MECHANICAL PROPERTIES

Solar cells	72 (6x12) monocrystalline silicon solar cells, 125 x 125 mm
Front surface	3.2 mm thick, low-iron solar glass
Rear side cover	Film compound (EVA/TPT)
Frame	Anodised aluminium
Diodes	3 bypass diodes
Junction box	Protection degree IP65
Plug-in connector	MC4 compatible
Cables	Length: 900 mm / profile: 4 mm²
Dimensions	1580 x 808 x 35 mm 62.2 x 31.8 x 1.38 inches
Weight	15.5 kg / 34.17 lbs
Snow load	2400 Pa (as per test at PI-Institut-Berlin: >5400 Pa)
Wind load	60 m/s (200 kg/m²)
Hail test	227 g steel balls from 1 m height
Product guarantee	12 years
Performance guarantee	10 years at 90 %, 30 years at 80 % of the min. rated output

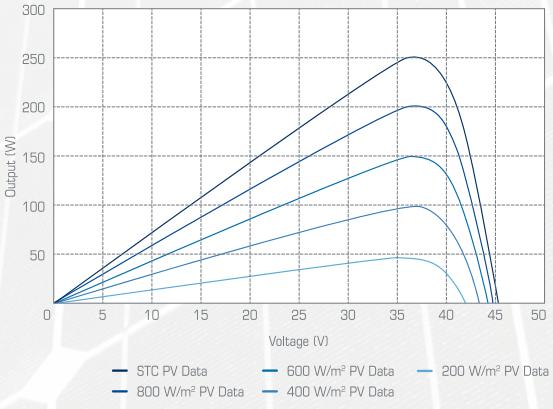
SCHEMATIC DIAGRAMM AS M SERIES



CURRENT-VOLTAGE CHARACTERISTIC CURVE



OUTPUT-VOLTAGE CHARACTERISTIC CURVE



The typical change in the degree of module effectiveness with an irradiation of 200 W/m² instead of 1000 W/m² (both at 25°C and spectrum AM 1.5) < 3%