

# THE ANTARIS M6-SERIES

- ANTARIS modules are manufactured from high-quality components for worldwide use in grid-connected systems.
- Continuous quality controls throughout the entire production process
- Production using state-of-art quality assurance technology
- Quality assurance by an external, independent testing institute based in Germany

On the AS M6 series, we grant a 30-year performance guarantee and a 12-year product guarantee.



Also available IN BLACK























ANTARIS SOLAR GmbH & Co. KG Head office 63735 Aschaffenburg, Germany

Phone: <del>+49 (0) 6095 95</del>0-441 +49 (0) 6095 950-544 Fax: Email: info@antaris-solar.com www.antaris-solar.com Internet:



#### **ELECTRICAL PROPERTIES (STC\*)** M6 260 **ANTARIS SOLAR AS M6 series** M6 250 M6 255 Rated output (Pmax) [Wp] 250 255 260 30.2 Voltage with Pmax (Vmpp) $[ \vee ]$ 30.1 30.4 Current with Pmax (Impp) [A] 8.32 8.44 8.55 [V] Open circuit voltage (Voc) 37.5 37.6 37.7 Short circuit current (Isc) [A] 8.99 8.87 9.1 Output tolerance to rated output + 5 W Max. reverse current (In) [A] 15 [V] IEC 1000 Max. system voltage Degree of module effectiveness [%] 15.4 15.7 16.0 Application category (as per IEC 61730) A (as per IEC 61730) C(UL) Fire category 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 M6 series      | M6 250 | M6 255 | M6 260 |  |  |  |  |  |
| Rated output (Pmax) [Wp]        | 184    | 188    | 191    |  |  |  |  |  |
| Voltage with Pmax (Vmpp) [V]    | 28.0   | 28.4   | 28.7   |  |  |  |  |  |
| Current with Pmax (Impp) [A]    | 6.57   | 6.62   | 6.66   |  |  |  |  |  |
| Open circuit voltage (Voc) [V]  | 37.5   | 37.6   | 37.7   |  |  |  |  |  |
| Short circuit current (Isc) [A] | 7.15   | 7.21   | 7.28   |  |  |  |  |  |

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

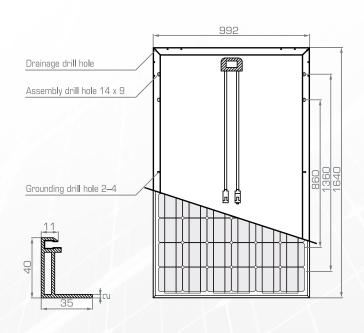
## TEMPERATURE PROPERTIES

| NOCT**                       | 45 +/- 2°C        |
|------------------------------|-------------------|
| Temperature coefficient Pmax | -0.43 %/K         |
| Temperature coefficient Voc  | -0.31 %/K         |
| Temperature coefficient Isc  | 0.03 %/K          |
| Operating temperature        | from -40 to +85°C |
|                              |                   |

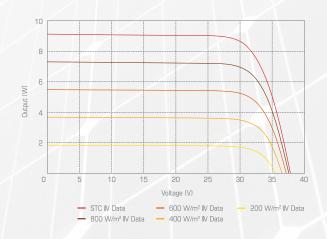
NOCT\*\*: Nominal cell operating temperature sun 800 W/m², air 20°C, wind speed 1m/s  $\,$ 

| MECHANICAL PROPERTIES |  |  |  |  |
|-----------------------|--|--|--|--|
| Solar cells           | 60 (6x10) monocrystalline silicon            |  |  |  |
|                       | solar cells, 156 x 156 mm                    |  |  |  |
| Front surface         | 3.2 mm thick, low-iron solar glass           |  |  |  |
| Rear side cover       | Film compound (EVA/TPT)                      |  |  |  |
| Frame                 | Anodised aluminium                           |  |  |  |
| Diodes                | 6 bypass diodes                              |  |  |  |
| Junction box          | Protection degree IP65                       |  |  |  |
| Plug-in connector     | MC4 compatible                               |  |  |  |
| Cables                | Length: 1000 mm / profile: 4 mm <sup>2</sup> |  |  |  |
| Dimensions            | 1640 x 992 x 40 mm                           |  |  |  |
|                       | 64.6 x 39.1 x 1.57 inches                    |  |  |  |
| Weight                | 19 kg / 41.6 lbs                             |  |  |  |
| Snow load             | 5400 Pa                                      |  |  |  |
| Wind load             | 200 kg/m² (60 m/s)                           |  |  |  |
| Hail test             | 227 g steel balls from 1 m height            |  |  |  |
| Performance guarantee | 10 years at 90 %, 30 years at 80 %           |  |  |  |
|                       | of the min. rated output                     |  |  |  |

#### **SCHEMATIC DIAGRAMM**



## **CURRENT-VOLTAGE CHARACTERISTIC CURVE**



| EFFICIENCY AT VARIED IRRADIATION |        |      |      |      |      |      |  |
|----------------------------------|--------|------|------|------|------|------|--|
| Irradiance                       | [W/m²] | 200  | 400  | 600  | 800  | 1000 |  |
| Efficiency                       | [%]    | 15.9 | 16.2 | 16.2 | 16.1 | 16.0 |  |

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%

Last updated: June 2014 DB-M6-ENG/0614