

Photovoltaic modules

MAGE POWERTEC PLUS 270–280 MONO CLASSIC



MAGE POWERTEC PLUS convinces by:

1. Flexible Planning

- › Modules for all installation sizes
- › Maximum efficiency
- › Suitable for use in extreme site conditions

2. Easy Installation

- › Low weight, convenient format
- › Horizontal and vertical installation possible
- › Optimal utilisation of the roof surface

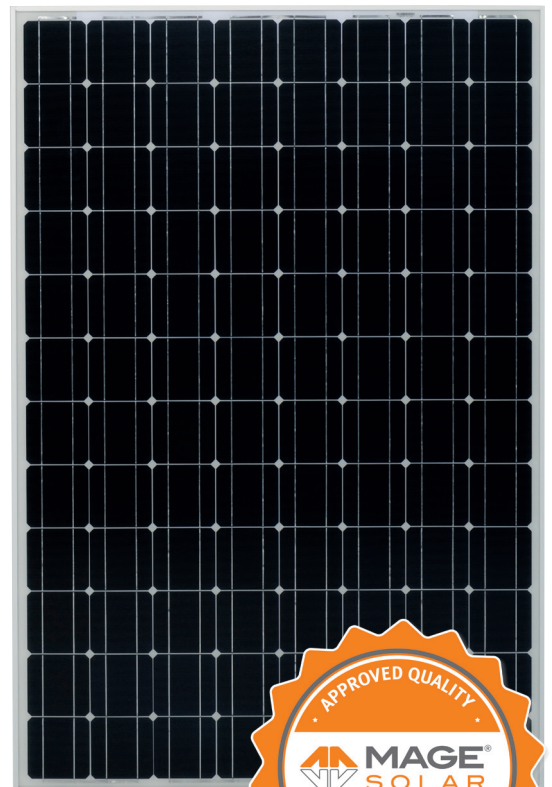
3. Maximum Yield

- › Only positive tolerances of up to 5 Wp
- › Only the best performance

4. Long Lifetime

- › Product warranty: 10 years*
- › Performance guarantee: 25 years linear at 80%*
- › Certified according to the strictest German and international standards

* according to our warranty conditions valid at the time of purchase, available from your MAGE SOLAR qualified partner or from MAGE SOLAR GmbH.



+5

WATTS
POSITIVE
TOLERANCE

10

YEAR
PRODUCT
WARRANTY*

25

YEAR
LINEAR PERFORMANCE
GUARANTEE 80%*

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Electrical characteristics at STC*		270	275	280
Nominal power	P_{nom} [Wp]	260	275	280
Tolerance of P_{nom}	P [Wp]	-0 / +5	-0 / +5	-0 / +5
Voltage at P_{nom}	U_{nom} [V]	49.50	49.70	50.40
Current at P_{nom}	I_{nom} [A]	5.45	5.53	5.56
Short circuit current	I_{sc} [A]	5.83	5.87	5.91
Open circuit voltage	U_{oc} [V]	61.00	61.20	61.60
Maximum system voltage	U_{syst} [V]	1000	1000	1000
Reverse current	I_r [A]	10	10	10

* Typical parameters at standard test conditions (STC): 1,000 W/m² irradiation on the module surface, 25°C module temperature, 1.5 AM spectral diffusion of irradiation simulating Air-Mass.

Electrical characteristics at NOCT**		270	275	280
Nominal power	P_{noct} [Wp]	204.40	208.20	211.90
Voltage at P_{noct}	U_{noct} [V]	44.40	44.60	45.10
Current at P_{noct}	I_{noct} [A]	4.60	4.67	4.70
Short circuit current	I_{sc} [A]	4.96	5.00	5.03
Open circuit voltage	U_{oc} [V]	55.70	55.90	56.20

** Typical parameters at nominal operating cell temperature (NOCT): 800 W/m² irradiation, 20°C ambient temperature, 1 m/s wind speed.

Efficiency		270	275	280
Cell efficiency up to [%]		18.33	18.66	18.99
Module efficiency up to [%]		16.00	16.30	16.66

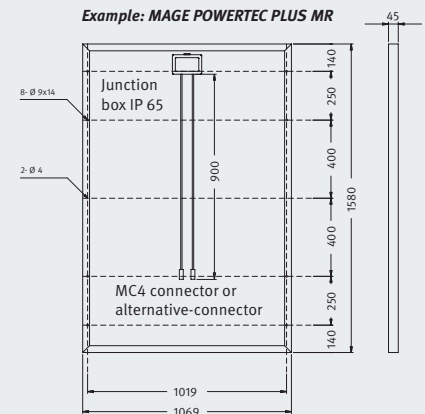
Minimal efficiency reduction in low irradiation at 25°C: at 200 W/m² irradiation a minimal efficiency reductions occurs, this leads to a functionality of 96% of the STC efficiency.

Technical characteristics***	
Number of cells (Matrix)	96 (8 x 12)
Solar cell type	Monocrystalline silicon, 125 x 125 mm, 5"
Front cover	3.2 mm solar glass
Frame material	Aluminium
Dimensions [L x W x D]	Refer to drawing
Weight up to	20.5 kg
Maximum mechanical load	5400 Pa (IEC 61215)
Number of bypass diodes	4

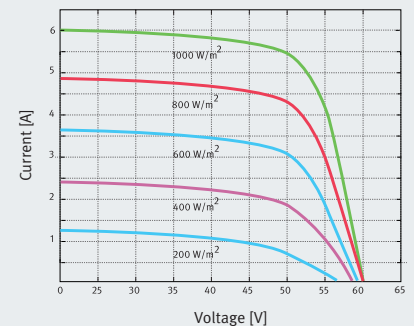
***Typical technical specifications

Thermal characteristics		
NOCT	[°C]	+45 +/- 2
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.334
Temperature coefficient	P_{nom} [%/K]	-0.445

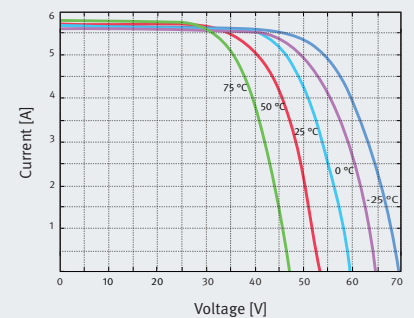
This data sheet conforms to standard EN 50380. All information subject to measurement inaccuracies (up to a maximum of three per cent depending on the parameter). Availability of the following product groups will be examined in the order: MAGE POWERTEC PLUS 270-280 MR.



MR: 1580 x 1069 x 45
Drawings on request
All lengths in mm



Module characteristics at constant module temperatures (25°C) and differing levels of irradiance



Module characteristics at different temperatures and constant module irradiance (1,000 W/m²)



IEC 61215, IEC 61730, ISO 9001
Dependent on market and/or product

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