

Photovoltaic modules

MAGE POWERTEC PLUS 200–210 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

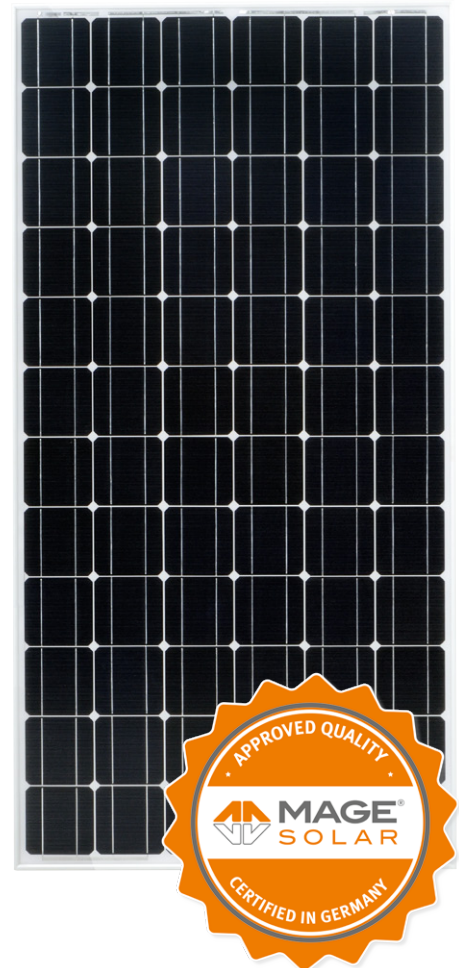
3. Maximum Yield

- › 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%*

Photovoltaic modules

MAGE POWERTEC PLUS 200–210 MONO CLASSIC

Electrical characteristics at STC*		200	205	210
Nominal power	P_{nom} [Wp]	200	205	210
Tolerance of P_{nom}	P [Wp]	-0/+5	-0/+5	-0/+5
Voltage at P_{nom}	U_{nom} [V]	37.05	37.45	37.80
Current at P_{nom}	I_{nom} [A]	5.40	5.48	5.56
Short circuit current	I_{sc} [A]	5.75	5.80	5.83
Open circuit voltage	U_{oc} [V]	45.78	45.93	46.12
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**		200	205	210
Nominal power	P_{noct} [Wp]	144.57	148.29	151.86
Voltage at P_{noct}	U_{noct} [V]	33.65	34.01	34.33
Current at P_{noct}	I_{noct} [A]	4.29	4.36	4.42
Short circuit current	I_{sc} [A]	4.59	4.63	4.65
Open circuit voltage	U_{oc} [V]	41.27	41.40	41.57

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

Efficiency		200	205	210
Cell efficiency up to [%]		18.21	18.66	19.10
Module efficiency up to [%]		16.05	16.44	16.83

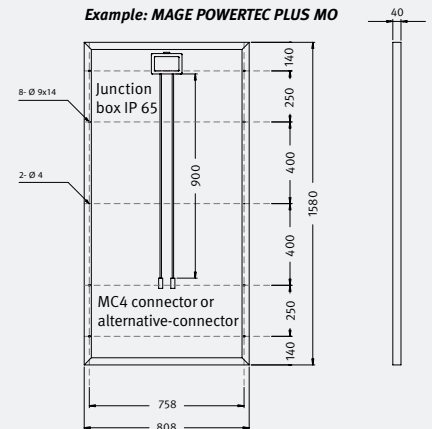
Minimal efficiency reduction in low irradiation at 25°C: at 200 W/m² irradiation a minimal efficiency reductions occurs, this leads to a functionality of 96% of the STC efficiency.

Technical characteristics***	
Number of cells (Matrix)	72 (6 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	16.5 kg
Maximum mechanical load	5400 Pa (IEC 61215)
Number of bypass diodes	3

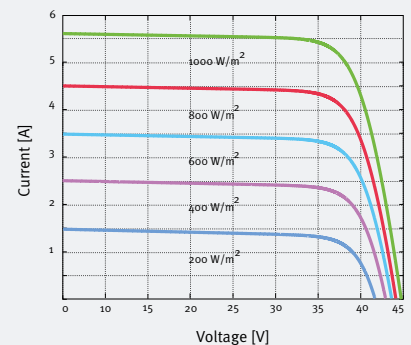
*** Typical technical specifications

Thermal characteristics		
NOCT	[°C]	+45 +/-3
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.32
Temperature coefficient	P_{nom} [%/K]	-0.42

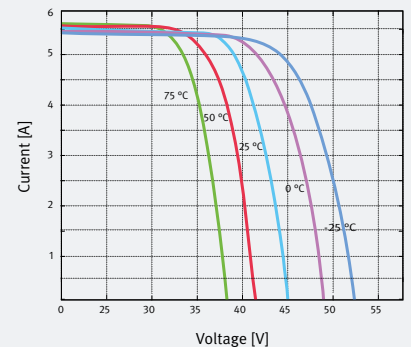
This data sheet conforms to standard EN 50380. All information subject to measurement inaccuracies (up to a maximum of three per cent depending on the parameter). Availability of the following product groups will be examined in the order: MAGE POWERTEC PLUS 200–210 ME, MH, MR, MO.



MO: 1580 x 808 x 40
 ME: 1580 x 808 x 40
 MH: 1580 x 808 x 45
 MR: 1580 x 808 x 40
 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

MAGE SOLAR GmbH
 An der Bleicherei 15, 88214 Ravensburg, Germany
 Tel +49 751 5 60 17-0, Fax +49 751 5 60 17-10
 info@pagesolar.eu, www.pagesolar.eu