

PHOTOVOLTAIC MODULES MAGE POWERTEC PLUS Poly

MAGE POWERTEC PLUS convinces by:

1. Flexible Planning

- › Modules for all installation sizes
- › Maximum efficiency
- › Suitable for use in coastal and agricultural areas

2. Easy Installation

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

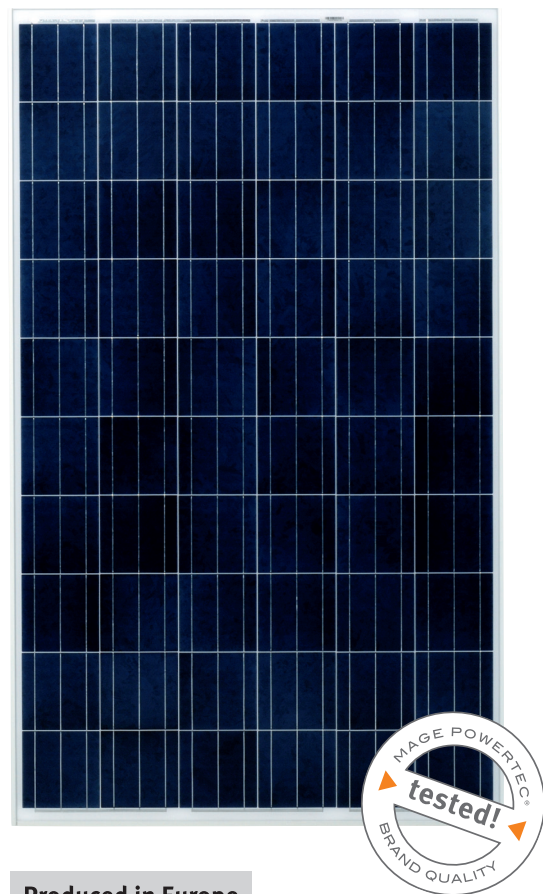
3. Maximum Yield

- › Top annual result in the PHOTON yield test
- › Only positive tolerances of up to 5 Wp
- › Only the best performance

4. Long Lifetime

- › Product warranty: 10 years
- › Performance guarantee: 12 years at 90 % and 30 years 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 AG.



Produced in Europe



+ 5

WATTS
POSITIVE
TOLERANCES

10

YEAR
PRODUCT-
WARRANTY*

12

YEAR
PERFORMANCE
GUARANTEE 90%*

30

YEAR
PERFORMANCE
GUARANTEE 80%*

PHOTOVOLTAIC MODULES

MAGE POWERTEC PLUS Poly

Electrical characteristics at STC*		240	245	250
Nominal power	P_{nom} [Wp]	240	245	250
Tolerance of P_{nom}	P [Wp]	-0/+5	-0/+5	-0/+5
Voltage at P_{nom}	U_{nom} [V]	29.57	29.73	29.89
Current at P_{nom}	I_{nom} [A]	8.20	8.32	8.45
Short circuit current	I_{sc} [A]	8.76	8.85	8.94
Open circuit voltage	U_{oc} [V]	37.35	37.56	37.78
Maximum system voltage	U_{syst} [V]	1000	1000	1000
Reverse current	I_r [A]	20	20	20

* 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**		240	245	250
Nominal power	P_{noct} [Wp]	176.8	180.5	184.1
Voltage at P_{noct}	U_{noct} [V]	26.97	27.12	27.27
Current at P_{noct}	I_{noct} [A]	6.56	6.65	6.75
Short circuit current	I_{sc} [A]	7.07	7.14	7.22
Open circuit voltage	U_{oc} [V]	34.29	34.49	34.69

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

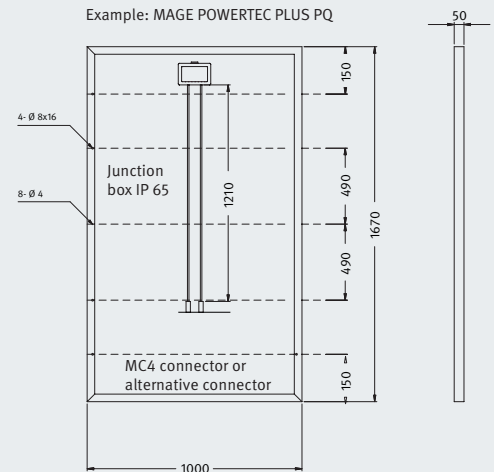
Efficiency		240	245	250
Cell efficiency up to [%]		17.00	17.20	17.40
Module efficiency up to [%]		14.4	14.7	15.00

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)	60 (6 x 10)
Solar cell type	Polycrystalline silicon, 156 x 156 mm, 6"
Front cover	3.2 mm solar glass
Frame material	Aluminium
Dimensions [L x W x D]	Refer to drawing
Weight up to	20.0 kg
Maximum mechanical load	5400 Pa (IEC 61215)
Number of bypass diodes	3

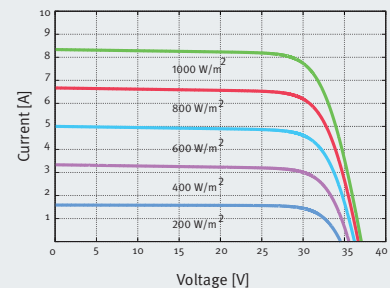
***Typical technical specifications

Thermal characteristics		
NOCT	[°C]	+47 +/-3
Temperature coefficient	I_{sc} [%/K]	+0.04
Temperature coefficient	U_{oc} [%/K]	-0.33
Temperature coefficient	P_{nom} [%/K]	-0.43

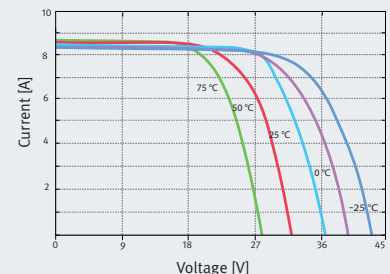


Drawings on request. All lengths in mm.

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, IEC 61701, ISO 9001, ISO 14001, OHSAS18001

Dependent on market and/or product

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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 240–250/6 PQ.