

Photovoltaic modules

MAGE POWERTEC PLUS 240–250 POLY CLASSIC



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

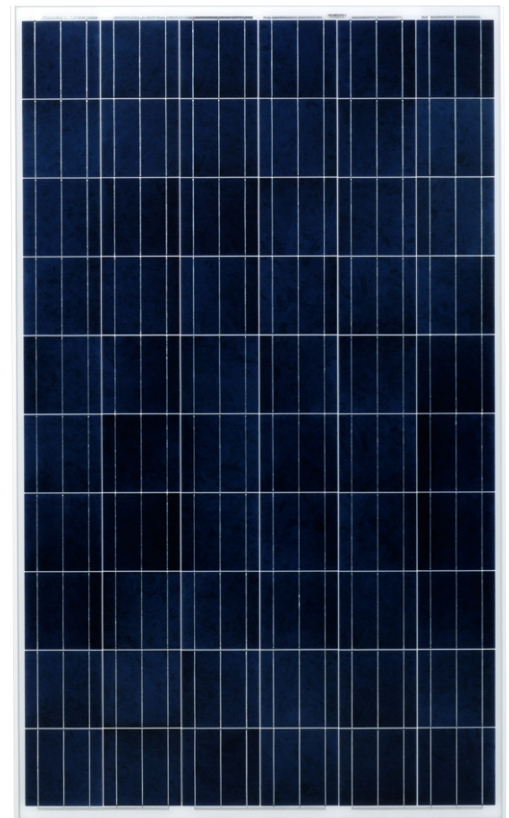
3. Maximum Yield

- › 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.



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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]	29.90	30.19	30.37
Current at P_{nom}	I_{nom} [A]	8.04	8.17	8.28
Short circuit current	I_{sc} [A]	8.52	8.65	8.75
Open circuit voltage	U_{oc} [V]	36.60	36.90	37.20
Maximum system voltage	U_{syst} [V]	1000	1000	1000
Reverse current	I_R [A]	15	15	15

* 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]	173.70	178.22	181.70
Voltage at P_{noct}	U_{noct} [V]	27.15	27.42	27.58
Current at P_{noct}	I_{noct} [A]	6.39	6.50	6.58
Short circuit current	I_{sc} [A]	6.80	6.90	6.98
Open circuit voltage	U_{oc} [V]	32.99	33.26	33.53

** 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 [%]		16.77	17.11	17.46
Module efficiency up to [%]		15.09	15.40	15.71

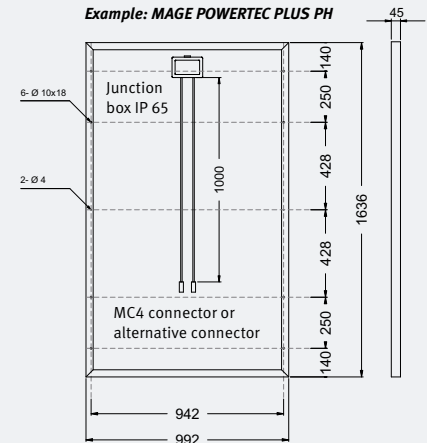
Minimal efficiency reduction in low irradiation at 25°C: at 200 W/m² irradiation a minimal efficiency reductions occurs, this leads to a functionality of 96 % of the STC efficiency.

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]	+45 +/-3
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.34
Temperature coefficient	P_{nom} [%/K]	-0.45

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 PD, PL, PH, PO, PJ, PR.



PD: 1650 x 990 x 42

PL: 1655 x 989 x 39

PH: 1636 x 992 x 45

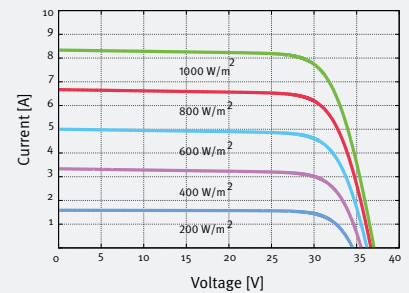
PO: 1650 x 991 x 45

PJ: 1655 x 992 x 45

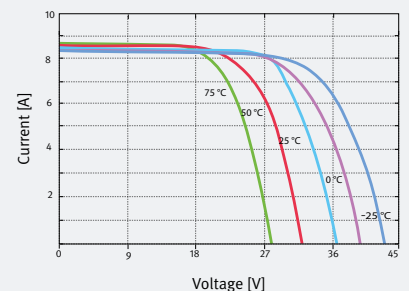
PR: 1655 x 992 x 45

All lengths in mm

Drawings on request



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, UL 1703, ISO 9001
Dependent on market and/or product

MAGE SOLAR AG

An der Bleicherei 15 · 88214 Ravensburg – Germany
Tel +49 (0) 7 51/5 60 17-0 · Fax +49 (0) 7 51/5 60 17-10
info@matesolar.eu · www.matesolar.eu