

Photovoltaic modules

MAGE POWERTEC PLUS 245–255 POLY 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

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Electrical characteristics at STC*		245	250	255
Nominal power	P_{nom} [Wp]	245	250	255
Tolerance of P_{nom}	P [Wp]	-0/+5	-0/+5	-0/+5
Voltage at P_{nom}	U_{nom} [V]	30.14	30.49	30.78
Current at P_{nom}	I_{nom} [A]	8.15	8.27	8.29
Short circuit current	I_{sc} [A]	8.64	8.8	8.85
Open circuit voltage	U_{oc} [V]	37.47	37.5	37.76
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**		245	250	255
Nominal power	P_{noct} [Wp]	177.49	182.2	184.41
Voltage at P_{noct}	U_{noct} [V]	27.37	27.69	27.96
Current at P_{noct}	I_{noct} [A]	6.48	6.58	6.59
Short circuit current	I_{sc} [A]	6.5	6.6	6.65
Open circuit voltage	U_{oc} [V]	33.78	33.8	34.0

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

Efficiency		245	250	255
Cell efficiency up to [%]		17.11	17.46	17.8
Module efficiency up to [%]		15.61	15.92	16.24

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.

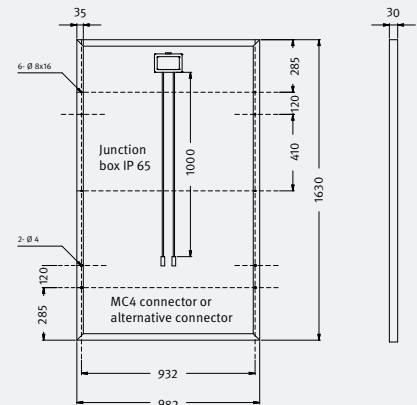
Technical characteristics***	
Number of cells (Matrix)	60 (6 x 10)
Solar cell type	Polycrystalline silicon, 156 x 156 mm, 6"
Front cover	PR= 3.2 mm solar glass, PN= 2.8 mm solar glass
Frame material	Aluminium
Dimensions [L x W x D]	Refer to drawing
Weight up to	PR= 20.0 kg, PN= 17.2 kg
Maximum mechanical load	5400 Pa
Number of bypass diodes	3

*** Typical technical specifications

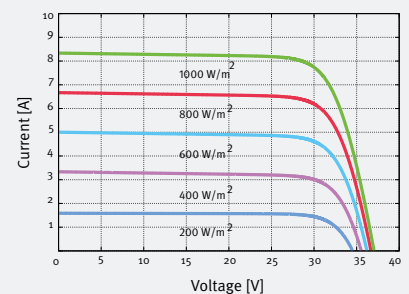
Thermal characteristics		
NOCT	[°C]	+46 +/-2
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.34
Temperature coefficient	P_{nom} [%/K]	-0.4

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 245–255 PR, PN.

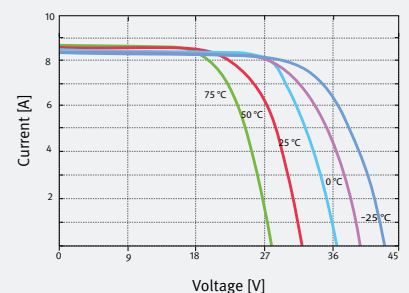
Example: MAGE POWERTEC PLUS PN



PR: 1655 x 992 x 45
 PN: 1630 x 982 x 30
 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, ISO 9001
 Dependent on market and/or product

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