Photovoltaic modules
MAGE POWERTEC PLUS 255–270 MONO BLACK CLASSIC

CLASSIC LINE

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%*

THE SUN ON YOUR SIDE

Photovoltaic modules

MAGE POWERTEC PLUS 255–270 MONO BLACK CLASSIC

Electrical characteristics at STC*		255	260	265	270
Nominal power	P_{nom} [Wp]	255	260	265	270
Tolerance of P_{nom}	P [Wp]	-0 / +5	-0 / +5	-0 / +5	-0 / +5
Voltage at P_{nom}	U_{nom} [V]	49.30	49.40	49.50	49.60
Current at P_{nom}	I_{nom} [A]	5.18	5.27	5.36	5.45
Short circuit current	I_{SC} [A]	5.70	5.80	5.90	6.00
Open circuit voltage	U_{OC} [V]	59.30	59.40	59.60	59.90
Maximum system voltage	U_{syst} [V]	1000	1000	1000	1000
Reverse current	I_R [A]	15	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**		255	260	265	270
Nominal power	P_{noct} [Wp]	184.45	187.96	191.71	195.33
Voltage at P_{noct}	U_{noct} [V]	44.77	44.86	44.95	45.05
Current at P_{noct}	I_{noct} [A]	4.12	4.19	4.26	4.33
Short circuit current	I_{SC} [A]	4.55	4.63	4.71	4.79
Open circuit voltage	U_{OC} [V]	53.46	53.55	53.73	54.00

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

Efficiency	255	260	265	270
Cell efficiency up to [%]	17.33	17.66	17.99	18.33
Module efficiency up to [%]	15.49	15.79	16.09	16.38

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.

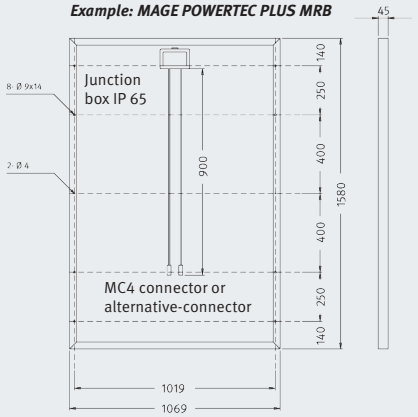
Technical characteristics***	
Number of cells (Matrix)	96 (8 x 12)
Solar cell type	Monocrystalline silicon, 125 x 125 mm, 5“
Front cover	3.2 mm solar glass
Frame material	Aluminium
Dimensions [L x W x D]	Refer to drawing
Weight up to	20.5 kg
Maximum mechanical load	5400 Pa (IEC 61215)
Number of bypass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

*** Typical technical specifications

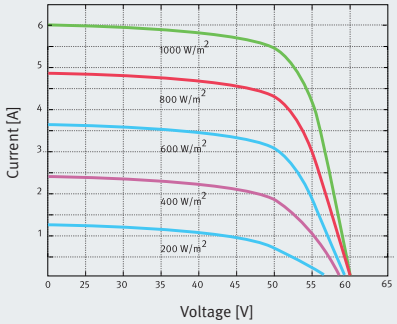
Thermal characteristics		
NOCT	[°C]	+45 +/-2
Temperature coefficient	I_{SC} [%/K]	+0.05
Temperature coefficient	U_{OC} [%/K]	-0.3804
Temperature coefficient	P_{nom} [%/K]	-0.4417

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 255-270 MRB.

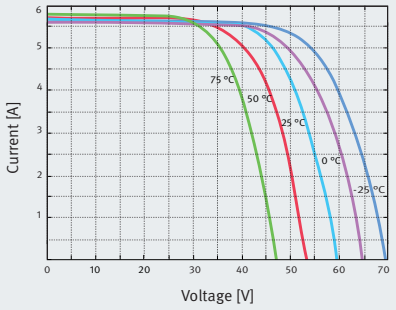
Example: MAGE POWERTEC PLUS MRB



MRB: 1580 x 1069 x 45 mm
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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