

PHOTOVOLTAIC MODULES MAGE POWERTEC PLUS Mono

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

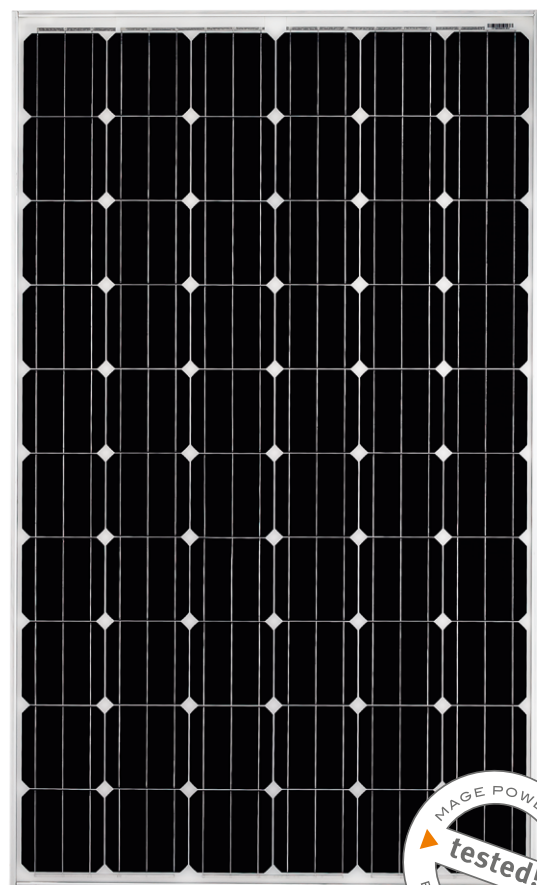
- › Low weight, convenient format
- › Horizontal and vertical installation possible
- › Optimal utilisation of the roof surface

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.

+ 5

WATTS
POSITIVE
TOLERANCE

10

YEAR
PRODUCT-
WARRANTY*

12

YEAR
PERFORMANCE
GUARANTEE 90%*

30

YEAR
PERFORMANCE
GUARANTEE 80%*

PHOTOVOLTAIC MODULES

MAGE POWERTEC PLUS Mono

Electrical characteristics at STC*		250	255	260
Nominal power	P_{nom} [Wp]	250	255	260
Tolerance of P_{nom}	P [Wp]	-0/+5	-0/+5	-0/+5
Voltage at P_{nom}	U_{nom} [V]	30.54	30.70	30.81
Current at P_{nom}	I_{nom} [A]	8.19	8.31	8.45
Short circuit current	I_{sc} [A]	8.84	8.86	8.88
Open circuit voltage	U_{oc} [V]	37.35	37.52	37.60
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**		250	255	260
Nominal power	P_{noct} [Wp]	180.73	184.34	188.12
Voltage at P_{noct}	U_{noct} [V]	27.74	27.88	27.98
Current at P_{noct}	I_{noct} [A]	6.51	6.61	6.72
Short circuit current	I_{sc} [A]	7.05	7.07	7.08
Open circuit voltage	U_{oc} [V]	33.67	33.82	33.89

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

Efficiency		250	255	260
Cell efficiency up to [%]		17.46	17.80	18.14
Module efficiency up to [%]		15.71	16.01	16.32

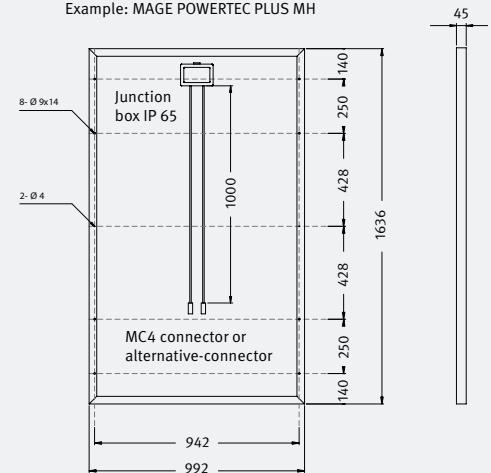
Minimal efficiency reduction in low irradiation at 25°C: at 200 W/m² irradiation a minimal efficiency reduction occurs, this leads to a functionality of 96 % of the STC efficiency.

Technical characteristics***	
Number of cells (Matrix)	60 (6 x 10)
Solar cell type	Monocrystalline 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	19.5 kg
Maximum mechanical load	5400 Pa (IEC 61215)
Number of bypass diodes	3

***Typical technical specifications

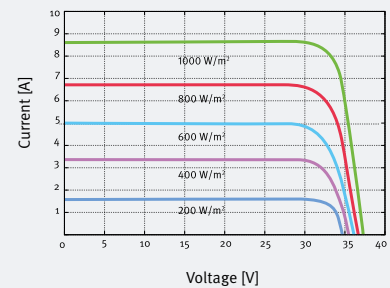
Thermal characteristics		
NOCT	[°C]	+45 +/-3
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.32
Temperature coefficient	P_{nom} [%/K]	-0.42

Example: MAGE POWERTEC PLUS MH

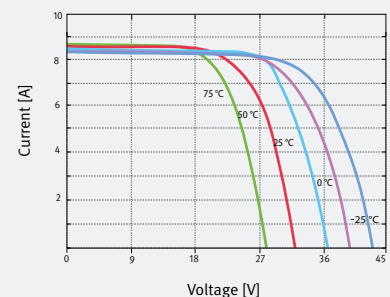


Module lengths: MO 1650, ME 1640
Drawings on request. All lengths in mm.

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