

Photovoltaic modules

MAGE POWERTEC PLUS 255–275 MONO BLACK PREMIUM



MAGE POWERTEC PLUS convinces by:

1. Flexible Planning

- › High aesthetics by elegant design
- › Meets requirements of local content
- › High efficiencies

2. Easy Installation

- › Premium frame with lower weight
- › Optimized height of module frame
- › Lower logistics costs by higher module quantities per pallet

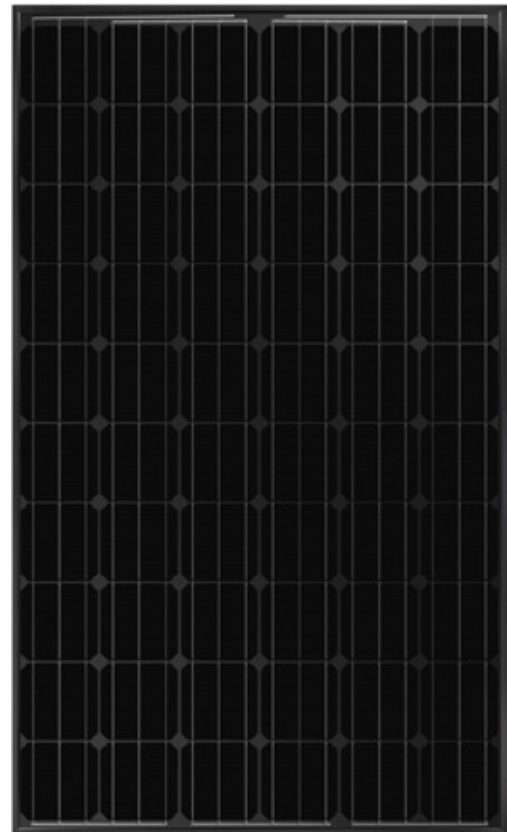
3. Maximum Yield

- › Higher yields by optimized characteristics of low irradiance and temperature
- › Top performance classes

4. Long Lifetime

- › Premium quality
- › Long-term guarantees*
- › Hightech aluminium alloy for higher loads up to 5.400 Pa

* 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%*

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Electrical characteristics at STC*		255	260	265	270	275
Nominal power	P_{nom} [Wp]	255	260	265	270	275
Tolerance of P_{nom}	P [Wp]	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Voltage at P_{nom}	U_{nom} [V]	30.56	30.75	30.94	31.13	31.44
Current at P_{nom}	I_{nom} [A]	8.42	8.52	8.62	8.72	8.83
Short circuit current	I_{sc} [A]	8.92	8.98	9.04	9.09	9.14
Open circuit voltage	U_{oc} [V]	37.72	37.96	38.20	38.44	38.68
Maximum system voltage	U_{syst} [V]	1000	1000	1000	1000	1000
Reverse current	I_r [A]	15	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	275
Nominal power	P_{noct} [Wp]	185.90	189.31	192.71	196.15	200.60
Voltage at P_{noct}	U_{noct} [V]	27.75	27.93	28.10	28.27	28.55
Current at P_{noct}	I_{noct} [A]	6.69	6.77	6.85	6.93	7.02
Short circuit current	I_{sc} [A]	7.11	7.16	7.21	7.25	7.29
Open circuit voltage	U_{oc} [V]	34.00	34.22	34.43	34.65	34.87

** 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	275
Cell efficiency up to [%]		17.80	18.14	18.48	18.83	19.17
Module efficiency up to [%]		16.13	16.44	16.75	17.06	17.37

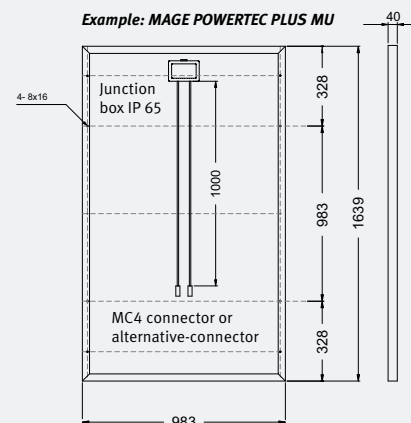
Minimal efficiency reduction in low irradiation at 25°C: at 200 W/m² irradiation a minimal efficiency reductions occurs, this leads to a functionality of 96% of the STC efficiency.

Technical characteristics***	
Number of cells (Matrix)	60 (6 x 10)
Solar cell type	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

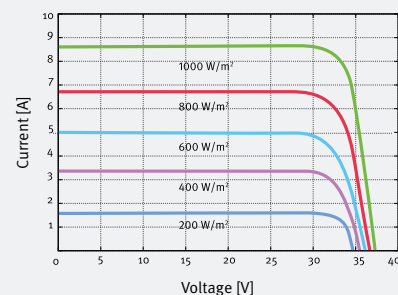
***Typical technical specifications

Thermal characteristics		
NOCT	[°C]	+45 +/-3
Temperature coefficient	I_{sc} [%/K]	+0.05
Temperature coefficient	U_{oc} [%/K]	-0.33
Temperature coefficient	P_{nom} [%/K]	-0.45

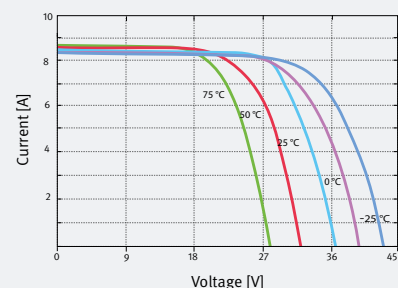
This data sheet conforms to standard EN 50380. All information subject to measurement inaccuracies (up to a maximum of three per cent depending on the parameter). Availability of the following product groups will be examined in the order: MAGE POWERTEC PLUS 255–275 MU.



MU: 1639 x 983 x 40
All lengths in mm
Drawing 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, UL 1703, ISO 9001
Dependent on market and/or product