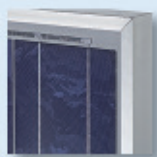


● **Advantages**

- Optimal usage of areas by small dimensions
- Light weight for a fast assembly
- High quality materials and modern manufacturing machinery
- Attractive price
- Appealing appearance



Solar module MBPV Value 130 Wp

● **The enterprise**

MB is one of the leading technology companies in India. For various big brands Blu-ray Discs and CDs are produced. The company operates in the photovoltaics industry since 2006 and covers the complete value chain from solar grade silicon to the finished module.

● **Self-made solar cells**

Polycrystalline solar cells are manufactured in a state of the art factory (german and swiss suppliers) and under the use of latest processes and manufacturing techniques. The wafer basic material originates from renowned sources.

● **High quality components**

The used encapsulation and back side materials (EVA and Tedlar) as well as the 4 mm thick solar glass are first-class quality.

The hollow-chamber aluminium frame with a height of 41 mm and drainage holes resist high loads. Bypass-Schottky diodes and Tyco junction boxes/connectors correspond to latest standards.

● **Only positive tolerance**

MBPV modules are delivered with nominal power or above. The rating tolerance is -0/+3 %.

● **Warranties**

MBPV modules are defect-free in materials and come with a 60-month warranty. They are warranted to perform not below 90 % of the minimum power output during a 12-year period, and 80 % up to 25 years.

● **Appealing appearance**

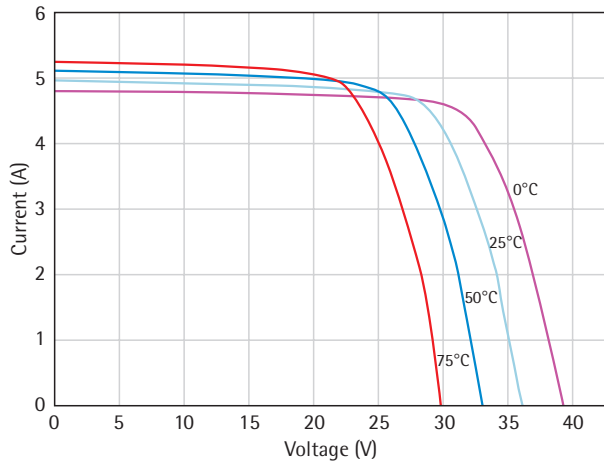
MBPV solar modules have a dark-blue, homogeneous solar cell color.

alfasolar
Vertriebsgesellschaft mbH
Ahrensburger Straße 4-6
D-30659 Hannover

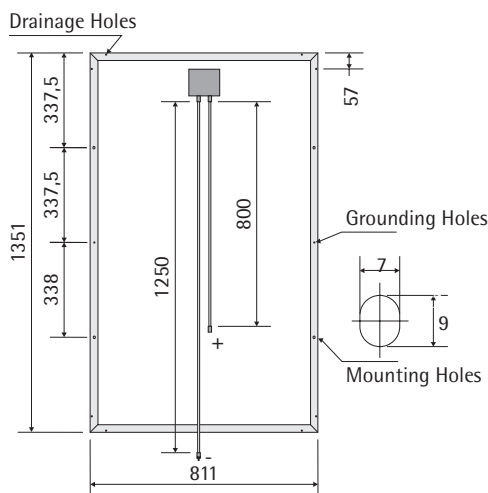
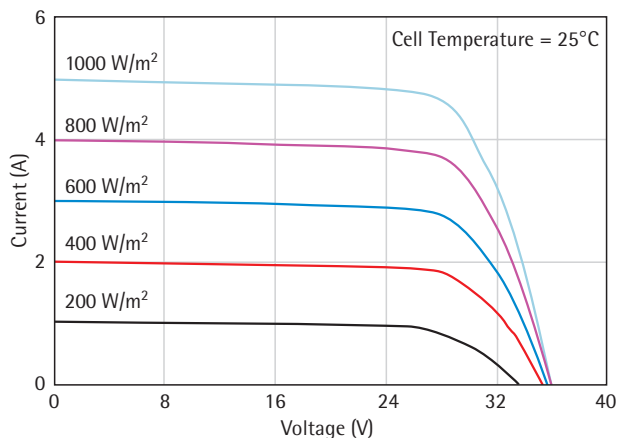
Sales:

Fon +49 (0) 511 261 447-10
Fax +49 (0) 511 261 447-50
sales@alfasolar.de

IV curves at various cell temperatures



IV curves at various irradiance levels



Physical characteristics

Dimensions/Weight	1351 x 811 x 41 mm / 14 kg
Solar cell type	60 polycrystalline solar cells 125 x 125 mm
Junction box	TYCO connectors and cable 4 mm ² (+0,8 m and -1,25 m)
Bypass diodes	3 Schottky-Bypass diodes 12 A

Limiting values/Qualifications

Permissible module temperature	-40 to +85 °C
Maximal system voltage	1000 V
Manufacturer warranty	60 month
Performance warranty, P _{min}	12 years 90%, 25 years 80%
Reverse current capability	15 A
Area compression	2400 N/m ²

Thermal characteristics

α [I_{sc}]	+0,077 %/°C
β [V_{oc}]	-0,35 %/°C
γ [P_{mpp}]	-0,50 %/°C
NOCT	47 °C (\pm 1 °C)

Electrical characteristics (STC: 1000 W/m², 25°C, AM 1,5)

MBPV model	120 W	125 W	130 W
Short circuit current, I_{sc}	4,8 A	4,87 A	4,9 A
Open circuit voltage, U_{oc}	36,00 V	36,03 V	36,05 V
Current at MPP, I_{mpp}	4,21 A	4,37 A	4,56 A
Voltage at MPP, U_{mpp}	28,5 V	28,6 V	28,5 V
Power at MPP, P_{mpp}	120 W	125 W	130 W

Packaging

2 modules per box	(1380 x 844 x 108 mm)
18 module pro palett	
20 ft container	288 pcs.
40 ft container	576 pcs.

IEC 61215 2nd Edition and
IEC 61730 (put to test at TÜV Rheinland at present)

