



MÜNSTERLAND<sup>®</sup>  
**SOLAR**  
A SECURE INVESTMENT

We develop and manufacture high-quality photovoltaic modules with the highest quality standards directly to the global market. This allows us to make an active contribution to climate protection, as less carbon dioxide (CO<sub>2</sub>) is emitted. But the most important aspect from our perspective is to avoid the use of non-renewable (fossil) fuels such as coal, oil, gas and uranium. Because only the 100% usage creates a more **sustainable** and **better** energy.



Quality comes first. The price certainly is a crucial factor in the construction of a plant, but what is the use of the best price, if the modules do not provide the full capacity after 10 years due to bad components. We focus on continuous monitoring of production processes to ensure long-lasting and consistent quality.

Investing in a photovoltaic system is one of the safest and easiest forms of investment for everyone. Because power is always needed, and the generated current is **100% organic**. And with photovoltaic modules from Münsterland Solar you are not only technically, you are also legally secure. In addition to our extensive product guarantees of up to 25 years.

And the best is:

*You get Münsterland Solar modules for top conditions!*



371 kWp, Germany



100 kWp, Australia



71 kWp, Germany



90 kWp, Germany



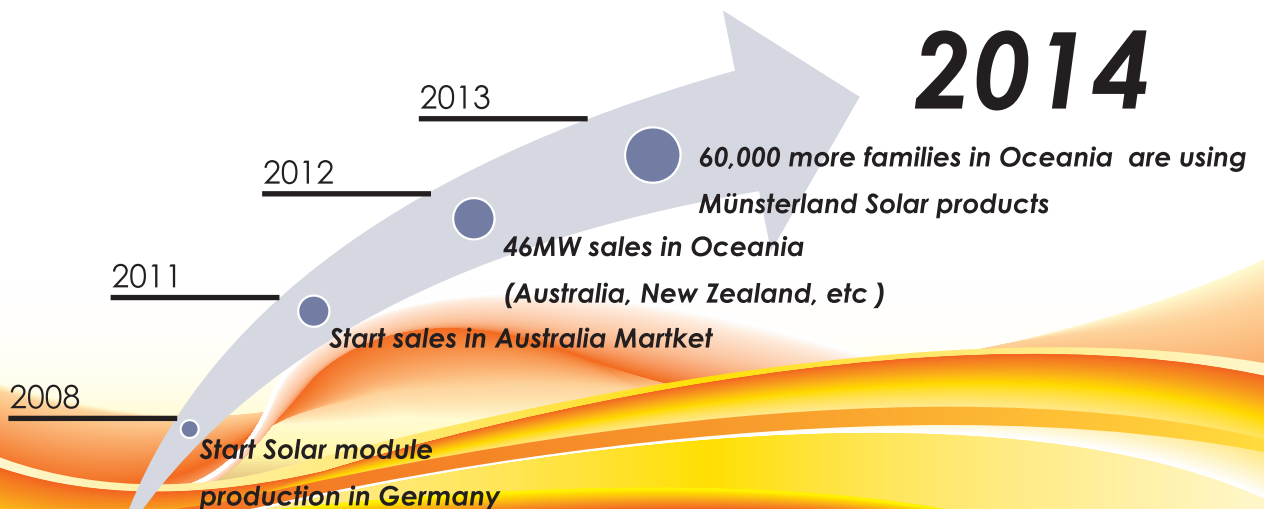
1.7 MW, Netherlands



4.2 MW, Spain



30 kWp, Germany



MLS-245M-60    MLS-250M-60    MLS-255M-60  
MLS-260M-60    MLS-265M-60

# LONG-TERM PRODUCT AND ACHIEVEMENT WARRANTY



## ELECTRICAL CHARACTERISTICS

MODULE TYPE	245M-60	250M-60	255M-60	260M-60	265M-60
Optimum Operating Voltage (V <sub>max</sub> /V)	30,2	30,5	30,8	31,1	31,5
Optimum Operating Current (I <sub>mp</sub> /A)	8,11	8,19	8,28	8,36	8,41
Open-Circuit Voltage (V <sub>oc</sub> /V)	37,4	37,9	38,55	39,11	39,59
Short-Circuit Current (I <sub>sc</sub> /A)	8,71	8,78	8,85	8,91	8,98
Maximum Power at STC (P <sub>max</sub> /W)	245	250	255	260	265
Cell Efficiency (%)	18,55 %	18,60 %	18,65 %	18,75 %	18,85 %
Module Efficiency (%)	15,15%	15,45 %	15,75 %	16,05%	16,35 %
Operating Module Temperature (°C)			- 40 °C to + 85 °C		
Maximum System Voltage (V)			1000 V DC		
Maximum Series Fuse Rating (A)			15 A		
Power Tolerance (%)			0/+5%		
STC: Irradiance 1000 W/m²		module temperature 25°C AM 1,5;		Power measurement tolerance: 0+5%	

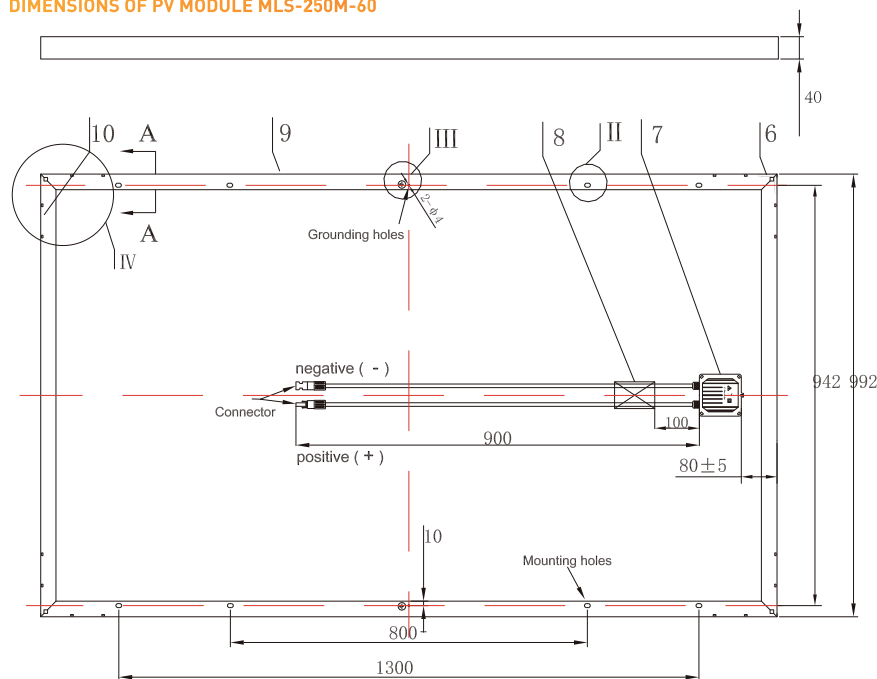
## MECHANICAL CHARACTERISTICS

Solar Cell	monocrystalline (156 * 156 mm)
No. of Cells	60 (6*10)
Dimensions	1650 * 992 * 40 mm
Weight	19.5 kg
Front Glass	3,2 mm tempered glass
Frame	anodized aluminium alloy
Junction Box	TÜV certified / IP65 / IP 67
Output Cables (length/cross-sectional-area)	900 mm / 4.0 mm <sup>2</sup>

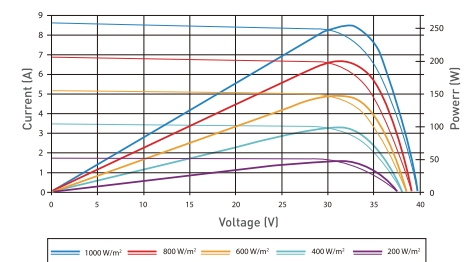
## TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45 °C
Temperature Coefficient of P <sub>max</sub>	-0,45 %/°C
Temperature Coefficient of V <sub>oc</sub>	-0,35 %/°C
Temperature Coefficient of I <sub>sc</sub>	0,040 %/°C

## DIMENSIONS OF PV MODULE MLS-250M-60



## CURRENT-VOLTAGE & POWER-VOLTAGE CURVE



For more products information,  
please contact your local distributor.



### HIGH MODULE EFFICIENCY

Solar cells efficiencies up to 18.85%  
Module efficiency up to 16.35%



### POSITIVE TOLERANCE

Guaranteed positive tolerance from +5%  
/-0 ensures power output reliability



### EXCELLENT WEAK PERFORMANCE

By the low cells-nominal operating  
temperature Münsterland Solar modules  
are suitable for regions with weak light.



### PREMIUM QUALITY OF RAW MATERIALS

Premium quality 9-N mono-silicon as  
raw material, advanced process and  
the authorized agency test guarantees  
the reliability of modules



### GERMAN GUARENTEE

We are your direct contact for  
guarantee questions. And by our  
enlarged product liability insurance  
we provide for 100% security.



### GERMAN QUALITY ASSURANCE

A high product quality is guaranteed by  
the permanent production supervision  
as well as the observance of the  
standardised processes.

