



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 (CO₂) 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



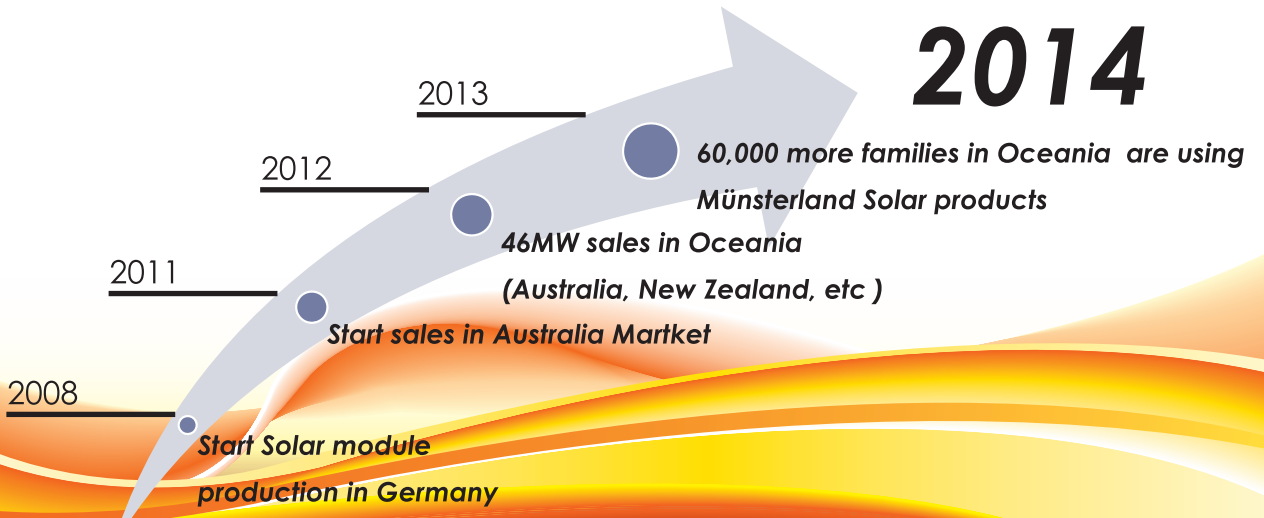
1.7 MW, Netherlands



4.2 MW, Spain



30 kWp, Germany



MLS230P-60 MLS235P-60 MLS240P-60
 MLS245P-60 MLS250P-60 MLS255P-60
Luxurious Black Series



LONG-TERM PRODUCT AND ACHIEVEMENT WARRANTY



ELECTRICAL CHARACTERISTICS

MODULE TYPE	230P-60	235P-60	240P-60	245P-60	250P-60	255P-60
Optimum Operating Voltage (V _{max} /V)	30.00	30.00	30.00	30.20	30.40	30.40
Optimum Operating Current (I _{mp} /A)	7.67	7.83	8.00	8.11	8.22	8.39
Open-Circuit Voltage (V _{oc} /V)	36.00	36.00	36.00	37.75	38.00	38.00
Short-Circuit Current (I _{sc} /A)	8.59	8.77	8.96	9.25	9.37	9.56
Maximum Power at STC (P _{max} /W)	230	235	240	245	250	255
Cell Efficiency (%)	18.15%	18.35%	18.45%	18.55%	18.60%	18.65%
Module Efficiency (%)	14.55%	14.75%	14.95%	15.15%	15.45%	15.75%
Operating Module Temperature (°C)	-40 °C to +85 °C					
Maximum System Voltage (V)	1000 V DC					
Maximum Series Fuse Rating (A)	15A					
Power Tolerance (%)	0/+5%					
STC: Irradiance 1000 W/m ² module temperature 25°C AM 1.5; Power measurement tolerance: 0→+5%						

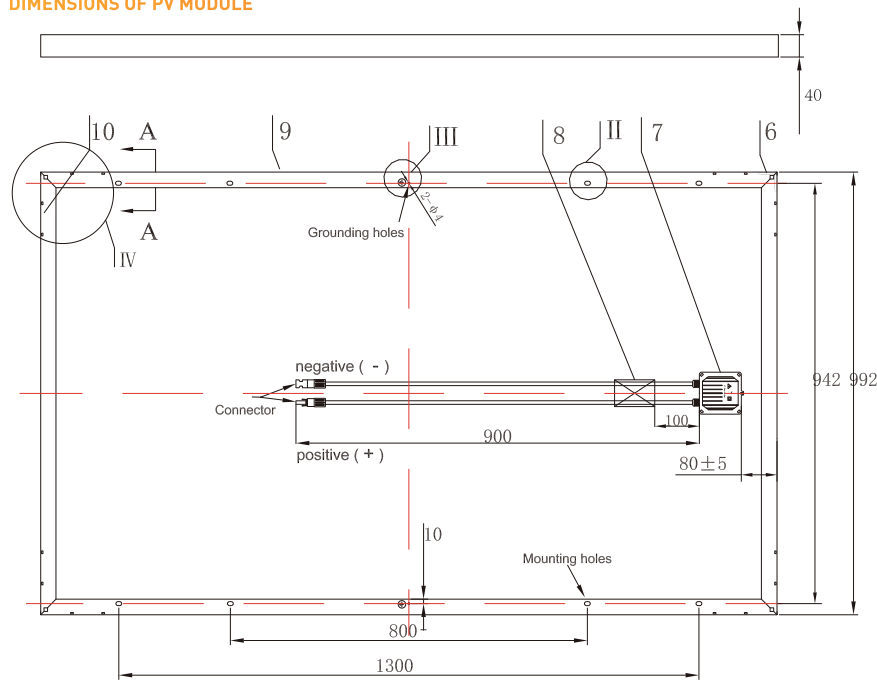
MECHANICAL CHARACTERISTICS

Solar Cell	polystalline (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 ²

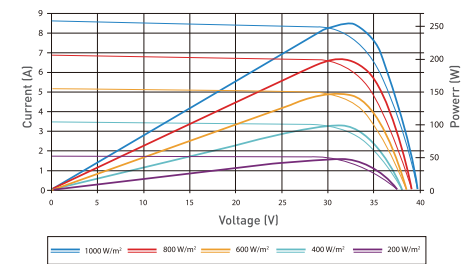
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45 °C
Temperature Coefficient of P _{max}	-0.44 %/°C
Temperature Coefficient of V _{oc}	-0.33 %/°C
Temperature Coefficient of I _{sc}	0.050 %/°C

DIMENSIONS OF PV MODULE



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% 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 poly-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.



Clean Energy Council

www.muensterlandsolar.com