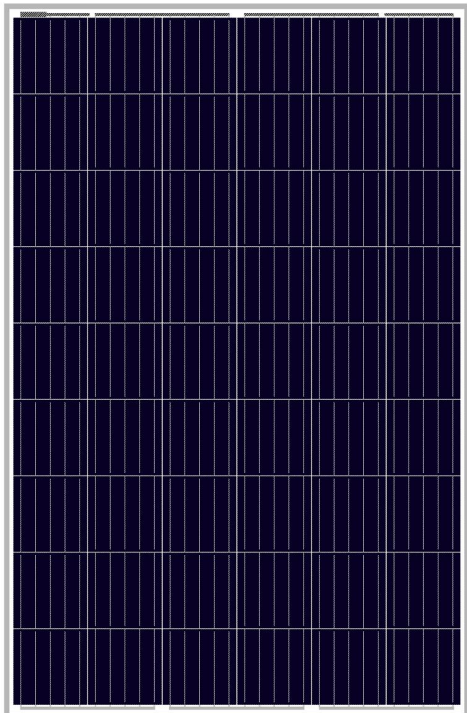


U 54 Cells

Polycrystalline Module

MSP250AS -27



ABOUT MÜNCHEN ENERGIEPRODUKTE

- München Energieprodukte is one of the most innovation, reliability, quality and value focused companies in the entire sector thanks to its focus on solar modules and technology ranging from roof systems to full-scale power plants. With markets in Germany, Japan, China, Australia and the Americas, München Energieprodukte is truly a global provider in the field of solar power.
- Whether you're picking solar modules for your residential / commercial roof system or power plant, you know you can rely on the München Energieprodukte brand. Customers who choose München Energieprodukte know we will deliver maximum performance with the highest quality product at the best value.

PERFORMANCE

- Tight positive power tolerance of -0%/W to +5%/W ensures you receive modules at or above nameplate power and contributes to minimizing module mismatch losses leading to improved system yield.
- Monocrystalline silicon solar cells with low-iron tempered high transmission and textured glass deliver a module efficiency of up to 20.0%, maximizing the kWh output of your system per unit area.

QUALITY & RELIABILITY

- Tested for harsh environments
(salt mist and ammonia corrosion testing: IEC 61701, DIN 50916:1985 T2)
- Modules independently tested to ensure conformance with certification and regulatory standards.

WARRANTIES

- 12 year limited product warranty
- 25 year limited power output warranty

Please refer to our Warranty Terms and Conditions



MAXIMUM ENERGY | WWW.MUENCHEN-ENERGIEPRODUKTE.DE



U 18.84% Cells Efficiency

Polycrystalline Module MSP250AS -27

Electrical parameters at Standard Test Conditions (STC)

| AT STC(AM1.5,Temp 25°C,E 1000W/m ²) | | |
|---|-------------------|--------|
| Module Type | MSP250AS -27 | |
| Power output | P _{max} | 250w |
| Power output tolerances | ΔP _{max} | 0~+5w |
| Module efficiency | η _m | 16.97% |
| Voltage at P _{max} | V _{mp} | 28.16V |
| Current at P _{max} | I _{mp} | 8.88A |
| Open circuit voltage | V _{oc} | 33.80V |
| Short circuit current | I _{sc} | 9.16A |

STC: 1000W/m² irradiance, 25 °C cell temperature, AM1.5g spectrum according to EN 60904-3. Average relative efficiency reduction of 5% at 200W/m² according to EN 60904-1.

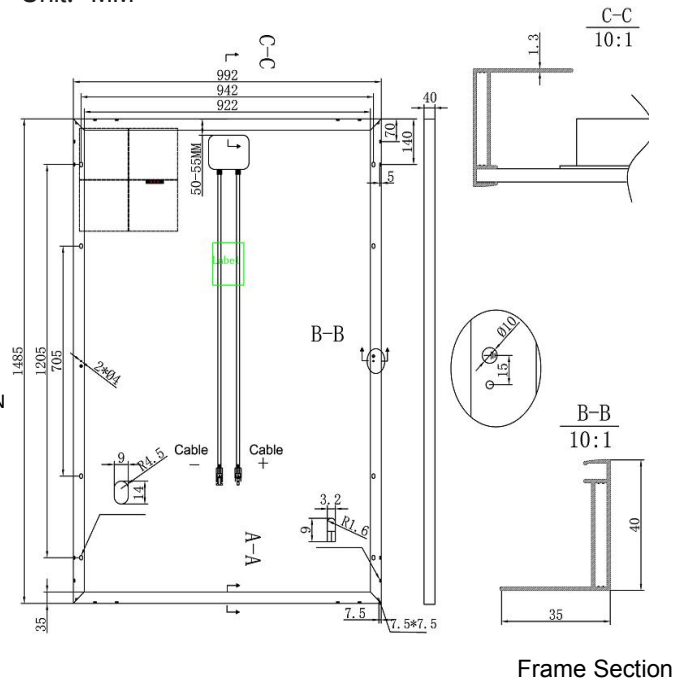
THERMAL CHARACTERISTICS

| | | | |
|---|--------------------|-------|---------|
| Nominal operating cell temperature | NOCT | °C | 45 +/-2 |
| Temperature coefficient of P _{max} | γ P _{max} | % / k | -0.38 |
| Temperature coefficient of V _{oc} | β V _{oc} | mV/k | -114 |
| Temperature coefficient of I _{sc} | α I _{sc} | mA/k | +4.1 |

NOCT:open-circuit module operation temperature at 800W/m² irradiance,20° Cambient temperature,1m/s wind

MODULE DIMENSION DETAILS

Unit: MM



OPERATING CONDITIONS

| | |
|---|---------------|
| Max. System Voltage | 1500VDC |
| Max. series fuse rating | 15A |
| Limiting reverse current | 15A |
| Operating temperature range | -40°C to 85°C |
| Max. static load, front (e.g., snow and wind) | 5400Pa |
| Max. static load, back (e.g., wind) | 2400Pa |
| Max. hailstone impact (diameter/velocity) | 25mm / 23m/s |

MECHANICAL CHARACTERISTICS

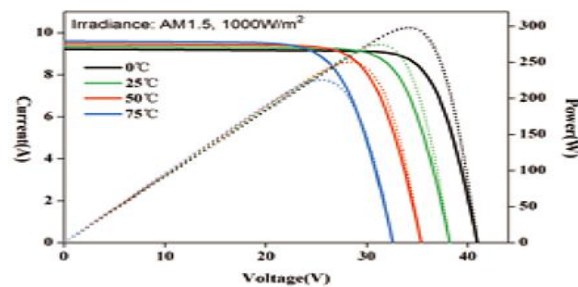
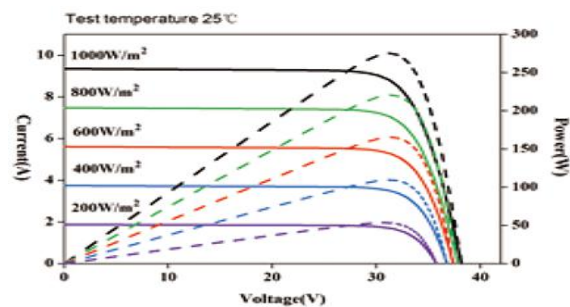
| | |
|---|---------------------------------|
| Front Cover (material / thickness) | low-iron tempered glass / 3.2mm |
| Cell (quantity) | 54 pcs(6*9) |
| Encapsulant (material) | EVA |
| Frame material | anodized aluminum alloy |
| Junction box (protection degree) | ≥ IP67 with bypass-diode |
| Cable (length / cross sectional area) | 1000mm / 4mm ² |
| Plug connector (type/protection degree) | MC4 / IP67 |
| Fire Safety Classification (IEC 61730) | Class C |

Specifications are subject to change without notice.

GENERAL CHARACTERISTIC

| | |
|------------|-----------------------|
| Dimensions | 1485mm / 992mm / 40mm |
| Weight | 15.8kg |

I-V Curves



München Energieprodukte
MAXIMALENERGIE

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