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EnergyPal

Solar Panel Guide Specification Data Sheet

**MSquare Energy Pty Ltd
MS-Series 330-380W
MS-345-M72**

Also available on the web at
EnergyPal.com/msquare-energy-pty-ltd-solar-panels/ms-345-m72

MS-SERIES
330-380 WATT
MONOCRYSTALLINE MODULE
 POSITIVE POWER
 TOLERANCE OF 0/+3%
 IEC61215, IEC61730
 CERTIFIED PRODUCTS

*Fully
 Automatic
 Manufacturing
 Facility*



OUR APPROACH

Msquare Energy believes high quality solar power should be produced locally at globally competitive pricing. Meticulous manufacturing, testing and quality assurance standards, TÜV certified raw materials and developed QMS system ensures consistent quality and traceability.



AUSTRALIAN QUALITY STANDARD

- Excellent mechanical loads 3600 PA positive & 1600PA negative
- High temperature operation
- Easy module replacement
- Quality control and traceability by stringent QMS system

CERTIFICATIONS

- TÜV & SÜD
- CSA, IEC 61730 and IEC 61215
- State of ART fully automatic facility
- Earth leakage tested to 3600V DC
- Double Electro-Luminescence (EL) tested
- Built to perform in low light condition
- Module exceeds the fire class C performance per UL790

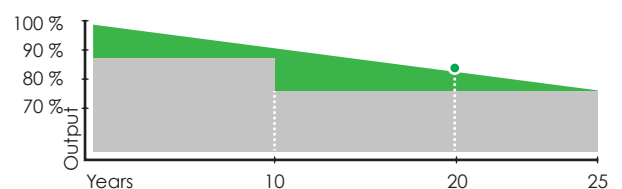


PERFORMANCE WARRANTY

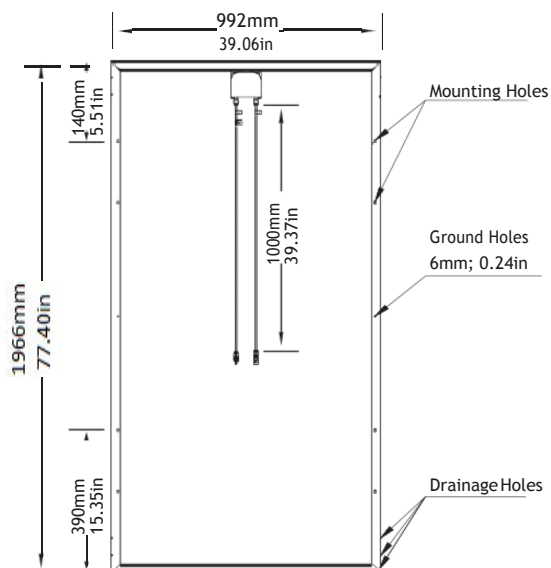
Max power decrease **0.5%/year**
97% at the end of **first** year
90% at the end of **20th** year
87% at the end of **25th** year



Market Standard Performances
 M-Series Performances



MODULE DESIGN



PV Connector Model - TT01, 1000V, 30A, IP67

SPECIFICATIONS

Solar Cells: 5 bus-bar, Mono Perc

Solar Glass: 3.2mm, tempered, low iron, high transparency solar safety glass.

Encapsulation: EVA

Backsheet: White

Frame: Extruded, black anodized aluminum

Junction Box: IP67 rated, 900mm cable,

Weight : 18-24KG

External Dimension: 1966mm x 992mm x 40mm

| Modules | MS-330-M72 | | MS-345-M72 | | MS-365-M72 | | MS-380-M72 | |
|-----------------------------|----------------------|--------|------------|-------|------------|-------|------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power (Pmax) | 330Wp | 244Wp | 345Wp | 256Wp | 365Wp | 271Wp | 380Wp | 282Wp |
| Maximum Power Voltage (Vmp) | 37.3V | 35.42V | 37.9V | 35.6V | 38.7V | 36.4V | 39.4V | 36.9V |
| Maximum Power Current (Imp) | 8.85A | 6.88A | 9.11A | 7.19A | 9.44A | 7.47A | 9.65A | 7.65A |
| Open-circuit Voltage (Voc) | 46.1V | 42.36V | 46.8V | 43.2V | 47.6V | 44.0V | 48.3V | 44.6V |
| Short-circuit Current (Isc) | 9.14A | 7.38A | 9.43A | 7.64A | 9.78A | 7.90A | 10.02A | 8.11A |
| Module Efficiency STC (%) | 18.6% | | 18.9% | | 19.3% | | 19.7% | |
| Operating Temperature (°C) | -40°C ~+85°C | | | | | | | |
| Maximum System Voltage | 1000VDC (UL and IEC) | | | | | | | |
| Maximum Series Fuse Rating | 20A | | | | | | | |
| Power Tolerance | 0~+3% | | | | | | | |

Short Circuit Current Tolerance - +/-4%

Open Circuit Voltage Tolerance - +/-2%

NOCT : Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s

STC : Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3

TEMPERATURE RATINGS

| | |
|-----------------------------|-------------|
| Nominal Operating Cell Temp | 45°C (±2°C) |
| Tempcoefficient of Pmax | -0.31%/°C |
| Tempcoefficient of Voc | -0.31%/°C |
| Tempcoefficient of Isc | 0.03%/°C |

MAXIMUM RATINGS

| | |
|------------------------|----------------|
| Operational Temp | -40 to +85°C |
| Max system Voltage | 1000V DC (IEC) |
| Max Series Fuse Rating | 20A |
| Mechanical Load | 3600pa |

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