



Picture shown may not reflect actual configuration

PVC400 MP Monocrystalline PERC Photovoltaic (PV) Module

The monocrystalline PERC (passivated emitter rear cell) photovoltaic modules provide excellent performance even under low temperature or low light environment. The modules provide high power output at high levels of reliability.

Features

Proven Energy Yield

- 19.4% efficiency
- -0/+5% positive power tolerance
- Linear shading response enables true-tracking in single-axis tracking systems, generating more energy than conventional systems that require backtracking.

Higher Efficiency and Reliability

The panel design minimizes white space between solar cells, eliminates reflective metal lines on the cells, and lowers electrical resistance between cells by using aerospace grade conductive adhesive and redundant cell to cell connections that increases efficiency compared to conventional commercial modules.

Increased Energy Production

- Linear shading response can generate more energy than conventional monocrystalline modules.
- Reduced panel temperature due to unique electrical bussing.

Anti-PID

- Anti-PID (performance induced degradation) techniques for processing solar cells and encapsulation of modules applied.

Adaptability to Harsh Environments

- Excellent anti-salt mist and anti-ammonia capability; adaptable to harsh environments such as desert and coastal regions.

Robust Frame

- Robust module construction enables installed module to withstand 2400Pa wind load and up to 5400Pa snow load.

Tests

- Top Performer in all DNV/GL Reliability Tests
- Standard Tests: IEC 61215, IEC 61730 (Class C Fire Rating) Rated to 1500V
- ISO 9001:2008: ISO Quality Management System
- ISO 14001:2004: ISO Environment Management System
- OHSAS 18001: 2007 Occupational Health and Safety
- IEC62716 Ammonia Test
- 10.1109/PVSC.2013.6744437 Desert Test
- IEC 61701 (maximum severity) Salt Spray Test
- Potential-induced degradation free: 1500V

Certifications

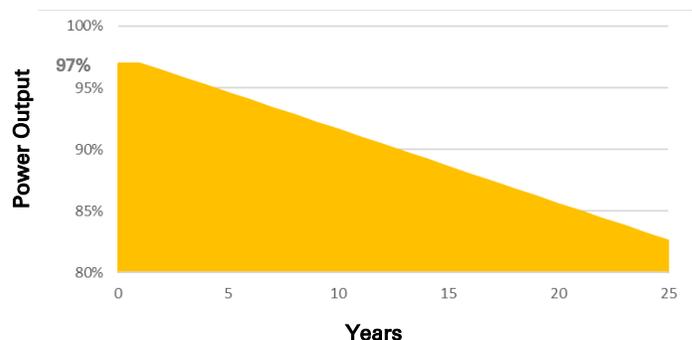
- Available listings: TUV Rheinland, MCS

Worldwide Product Support

- Cat® dealers have over 1,800 dealer branch stores operating in over 200 countries
- Your local Cat dealer provides extensive pre-sale and post-sale support, including design consultation, service contracts, and all maintenance agreement.

Module Warranty

- 25-year warranty for materials and processing
- 25-year power assurance program for linear power output. Produces more than 97% power in the first year, then declining by 0.6% per year, ending at 82.6% power after 25 years.



Module Rating at Standard Test Conditions (STC)

1000W/m², AM 1.5, 25°C

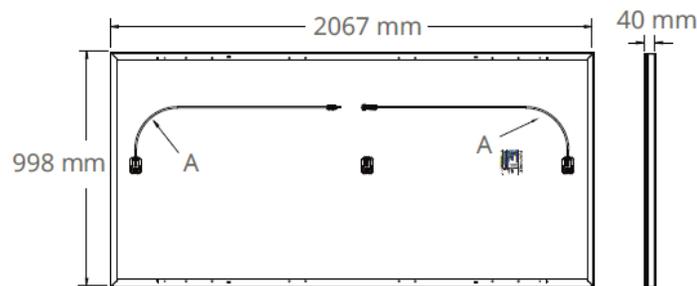
| | | |
|-----------------------------|----------------------|------|
| Nominal Power (-0/+5W) | P _{MPP} (W) | 400 |
| Voltage at P _{MAX} | V _{MPP} (V) | 44.8 |
| Current at P _{MAX} | I _{MPP} (A) | 8.93 |
| Open Circuit Voltage | V _{OC} (V) | 53.6 |
| Short Circuit Current | I _{SC} (A) | 9.50 |
| Module Efficiency | % | 19.4 |
| Maximum System Voltage | V _{SYS} (V) | 1500 |
| Maximum Series Fuse | I _{CF} (A) | 18 |

TEMPERATURE CHARACTERISTICS

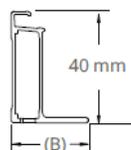
| | | |
|---|------------------------------------|------------|
| Module Operating Temperature Range | (°C) | -40 to +85 |
| Temperature Coefficient of P _{MPP} | T _K (P _{MPP}) | -0.36%/°C |
| Temperature Coefficient of V _{OC} | T _K (V _{OC}) | -0.29%/°C |
| Temperature Coefficient of I _{SC} | T _K (I _{SC}) | +0.05%/°C |

MECHANICAL DETAILS

| | |
|----------------|---|
| Length | 2067 mm (81.4 in) |
| Width | 998 mm (39.3 in) |
| Thickness | 40 mm (1.6 in) |
| Weight | 23.1 kg (51.0 lbs.) |
| Area | 2.06 m ² |
| Connectors | MC4 EVO2 |
| Cell Type | Monocrystalline PERC |
| Frame Material | Class 2 silver anodized |
| Tempered Glass | High-transmission tempered anti-reflective |
| Load Rating | 2400 Pa wind load front & back 5400 Pa Snow load front |



FRAME PROFILE



- (A) Cable Length: 1000 mm +/-15 mm
- (B) Long Side: 32 mm
Short Side: 24 mm

Materials and specifications are subject to change without notice.
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