



Monocrystalline PV module

72 cells (Black series)



Electrical Characteristics

| Model | UP-M175M-B | UP-M180M-B | UP-M185M-B | UP-M190M-B | UP-M195M-B | UP-M200M-B |
|-------------------------------|-----------------------|------------|------------|------------|------------|------------|
| Max Power Pm (Wp) | 175 | 180 | 185 | 190 | 195 | 200 |
| Max Power Voltage Vm (V) | 36.0 | 36.2 | 36.4 | 36.6 | 36.8 | 37.0 |
| Max Power Current Im (A) | 4.86 | 4.97 | 5.08 | 5.19 | 5.30 | 5.41 |
| Open-Circuit Voltage Voc (V) | 44.6 | 44.8 | 45.0 | 45.3 | 45.6 | 45.9 |
| Short-Circuit Current Isc (A) | 5.15 | 5.22 | 5.30 | 5.40 | 5.50 | 5.60 |
| Module Efficiency | 13.7% | 14.1% | 14.5% | 14.9% | 15.3% | 15.7% |
| Maximum System Voltage (V) | 1000 (IEC) / 600 (UL) | | | | | |
| Power Tolerance | ± 3% | | | | | |
| Series Fuse Rating (A) | 15 | | | | | |

Components & Mechanical Data

| | |
|------------------------|--|
| Front Glass | High Transparency Tempered Glass, 3.2 mm - Saint Gobain (Albarino) // Pilkington |
| Junction Box | Huber+Suhner (IP 67) Radox RH3 // Tyco , 1740971-1 |
| Bypass Diode | 3 diodes - ST STPS1545CG // Diotec SL1515 |
| Output Cables | H+S Radox smart // Tyco 1.0 m, ZHSCG (4 mm ² et 12AWG), IEC and UL approved PV Wire |
| Connectors | MC4 // H+S , IP67, IEC and UL approved |
| Frame | Anodized aluminum alloy type 6063-T5 |
| Encapsulation Material | EVA (0.50 ± 0.03 mm thickness) |
| Back Foil | Black TPT (0.32 ± 0.03 mm thickness) |
| Silicone Sealant | Dow Corning |
| Temperature Range | -40°C to +90°C |
| Max Load | 5400 Pa |
| Impact Resistance | Steel ball - 535 g dropped from 1.3 m high |

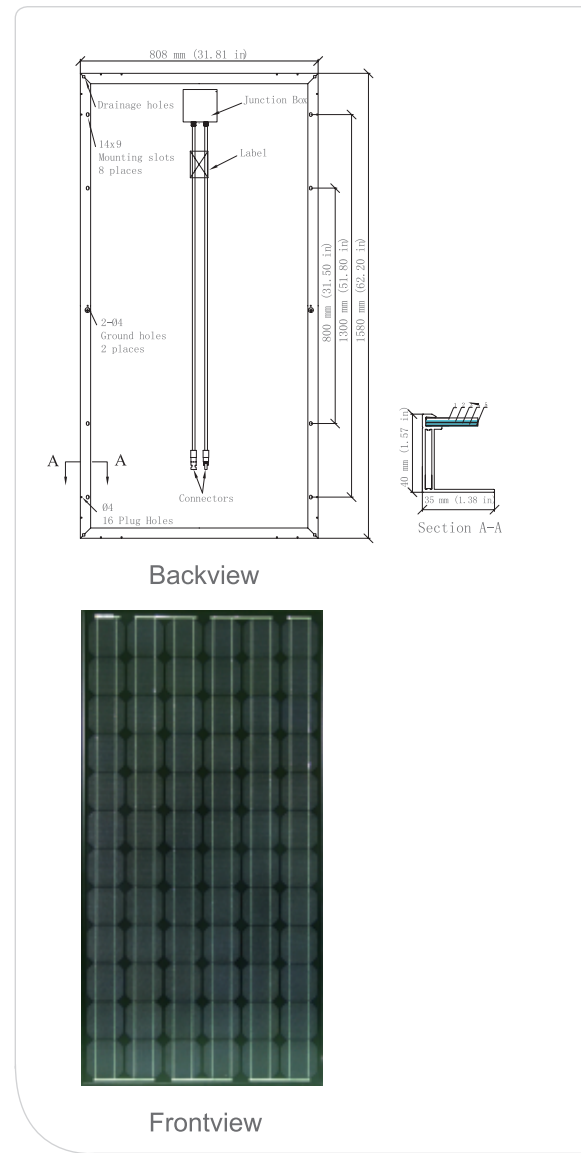
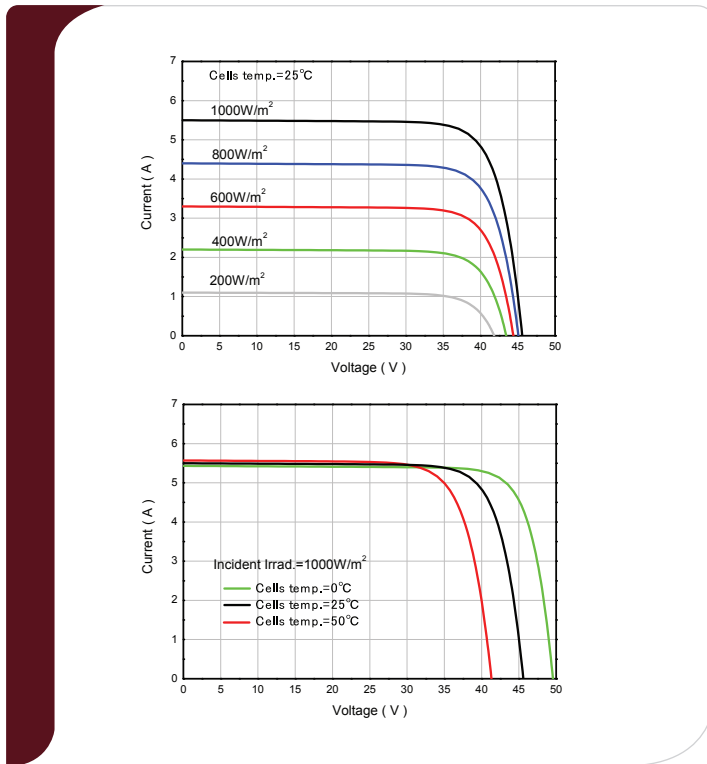
Specifications

| | |
|-----------------|---|
| Cells | Monocrystalline silicon solar cells 125 mm x 125 mm |
| Number of cells | 72 (6 x 12) |
| Dimensions (mm) | 1580 x 808 x 40 |
| Weight (kg) | 15.4 |

Temperature Coefficients

| | |
|---------------------------------------|--------------|
| NOCT (°C) | 45 ± 2 |
| Temperature Coefficient of Isc (%/°C) | 0.05 ± 0.01 |
| Temperature Coefficient of Voc (%/°C) | -0.32 ± 0.02 |
| Temperature Coefficient of Im (%/°C) | -0.02 ± 0.02 |
| Temperature Coefficient of Vm (%/°C) | -0.42 ± 0.03 |
| Temperature Coefficient of Pm (%/°C) | -0.43 ± 0.05 |

IV Curves

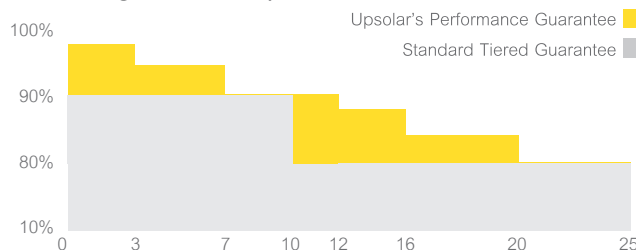


NOTE:

- STC: Irradiance 1000 W/m², Module temperature 25°C, AM = 1.5
- Nominal Operating Cell Temperature above data is only for reference
- Deviation of Vm(V), Im(A), Voc(V) and Isc(A) of ±10%

WARRANTIES:

Product guarantee: 10 years



PowerGuard Warranty Summary

Upsolar's PowerClip warranty policy protects against design defects, delaminating modules, power output falling outside the established degradation curve and coverage begins immediately.

The Program guarantees the funding of valid claims filed by end-customers pursuant to Upsolar's module warranty; is worldwide and protects all modules sold by Upsolar Co., Ltd. and subsidiary companies.

The Program delivers non-cancelable, irrevocable coverage and is fully-paid for; meaning valid claims will be paid out regardless of the solvency or existence of Upsolar over the full 25-year term, by A.M. Best rated "A" (Excellent) or better internationally recognized insurance providers.

Certifications:



AS/NZS 5033 Compliant PV Modules

Laboratories:



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