



Polycrystalline PV module 72 cells



Electrical Characteristics

Model	UP-M270P	UP-M275P	UP-M280P	UP-M285P	UP-M290P
Max Power Pm (Wp)	270	275	280	285	290
Max Power Voltage Vm (V)	35.1	35.1	35.2	35.4	35.5
Max Power Current Im (A)	7.70	7.84	7.95	8.06	8.17
Open-Circuit Voltage Voc (V)	44.6	44.6	44.8	45.0	45.2
Short-Circuit Current Isc (A)	8.22	8.29	8.35	8.42	8.50
Module Efficiency	13.9%	14.2%	14.4%	14.7%	14.9%
Maximum System Voltage (V)	1000 (IEC) / 600 (UL)				
Power Tolerance	± 3%				
Series Fuse Rating (A)	20				

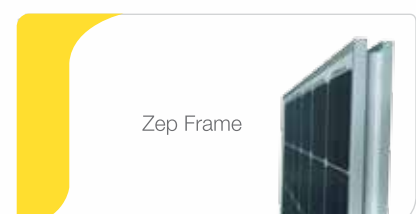
Components & Mechanical Data

Front Glass	High Transparency Tempered Glass, 0.157" // 4 mm - CSG
Junction Box	Huber+Suhrner (IP 67) Radox HA3
Bypass Diode	3 diodes - ST STPS1545CG
Output Cables	1.0m H+S , Radox smart // IEC, UL approved (0,0062 in ² // 4mm ² , 12AWG)(PV Wire Type)
Connectors	MC4 IP67, IEC and UL approved
Frame	Anodized aluminum alloy type 6063-T5
Encapsulation Material	EVA (0.019"//0.50mm ± 0.001"//0.03mm thickness)
Back Sheet	White TPT (0.012"//0.32mm ± 0.001"//0.03mm thickness)
Temperature Range	-40°F to +194°F // -40°C to +90°C
Max Load	75 lbs/ft ² (UL Standards) // 5400 Pa (IEC Standards)
Impact Resistance	Steel ball – 1.18 lbs // 535g dropped from 51" // 1.3m high

Specifications

Cells	Polycrystalline silicon solar cells 6" x 6" // 156 mm x 156 mm
Number of cells	72 (6 x 12)
Dimensions (in. // mm)	77 x 39.06 x 1.97 // 1956 x 992 x 50
Weight (lb. // kg)	59.52 // 27.0

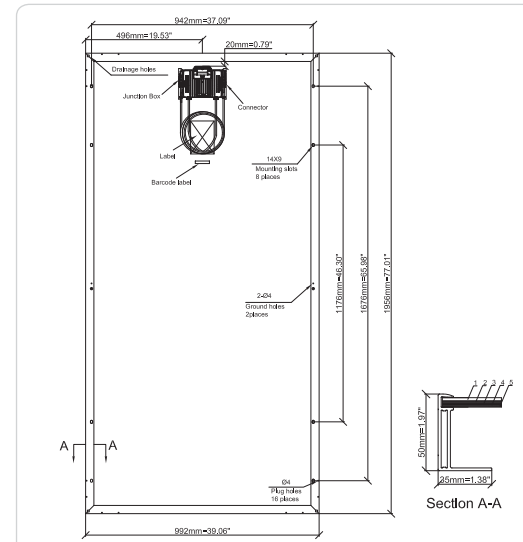
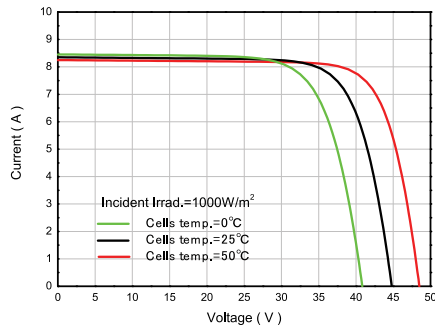
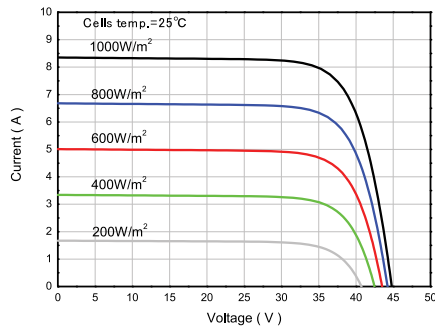
Options available



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

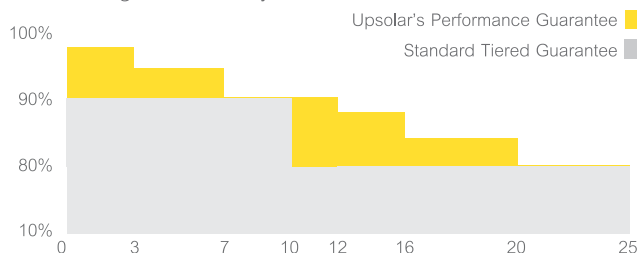


NOTE:

- 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 is available for purchase on all modules sold by Upsolar Group Co., Ltd. and subsidiary companies. The funding of valid claims filed by end-customers pursuant to Upsolar's module warranty is guaranteed on all modules covered by the PowerClip warranty policy.

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

Certifications:



IEC 61215
61730
61701
62716

Laboratories:

