



# Monocrystalline PV module 72 cells

## Electrical Characteristics

Model	UP-M165M	UP-M170M	UP-M175M	UP-M180M	UP-M185M
Max Power Pm (W)	165	170	175	180	185
Max-Power Voltage Vm (V)	35.2	35.4	35.6	35.8	36.0
Max-Power Current Im (A)	4.69	4.81	4.92	5.03	5.14
Open-Circuit Voltage Voc (V)	44.0	44.2	44.4	44.6	44.8
Short-Circuit Current Isc (A)	5.03	5.19	5.29	5.38	5.43
Cell Efficiency	15.7%	16.2%	16.7%	17.2%	17.6%
Module Efficiency	12.9%	13.3%	13.7%	14.1%	14.5%
Maximum System Voltage (V)	1000(TUV)/600(UL)				
Power Tolerance	±3%				

## Components & Mechanical Data

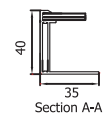
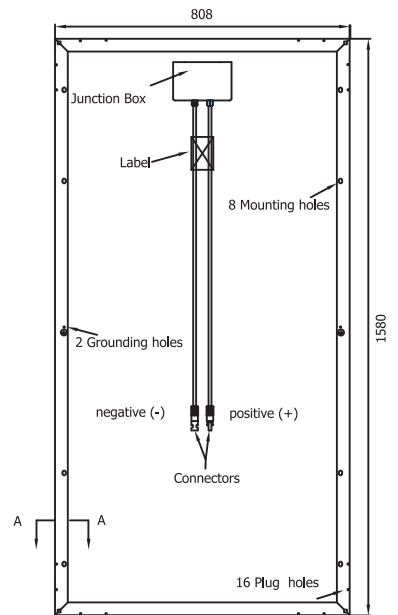
Front Glass	High Transparency Tempered Glass, 3.2mm - <b>Saint Gobain</b> (Albarino) // <b>CSG</b>
Junction Box	<b>Huber+Suhner</b> (IP 67) Radox RH3 // <b>Tyco</b> , 1740971-1
Bypass Diode	3 diodes - <b>ST</b> STPS145 // <b>Diotec</b> SL1515 (15A)
Output Cables	Cable <b>Tyco</b> 1m, ZHSCG (4mm <sup>2</sup> and 12AWG), IEC and UL approved
Connectors	<b>MC4</b> // <b>Tyco</b> , IP67, IEC & UL approved
Frame	Anodized aluminum alloy type 6063-T5
Encapsulation Material	EVA (0.50 + 0.03mm thickness)
Back Foil	White TPT (0.32+0.03mm thickness)
Silicone Sealant	<b>Dow Corning</b>
Temperature Range	-40°C to +90°C
Max Load	6400 Pa
Impact Resistance	Steel ball - 1040g dropped from 1m high





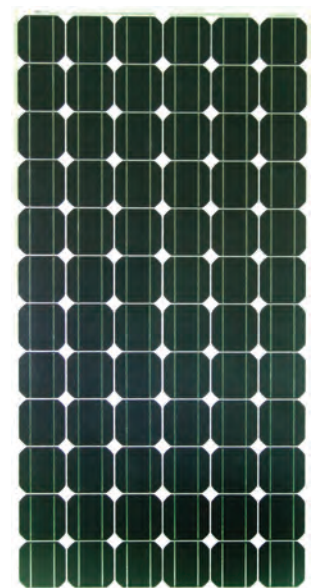
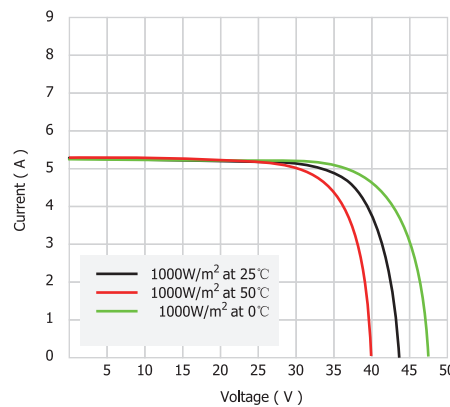
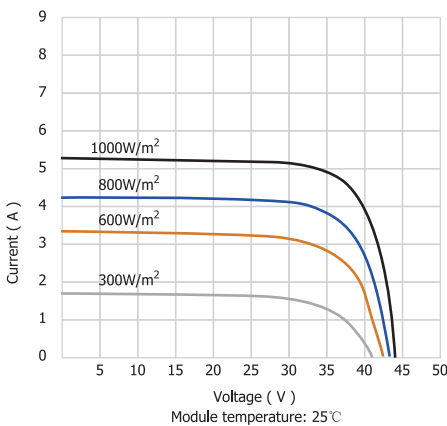
## Specifications

Cells	Monocrystalline silicon solar cells 125mm x 125mm
Cells Number	72 (6x12)
Dimension(mm)	1580 x 808 x 40
Weight(kg)	15.4



## Temperature Coefficients

NOCT (°C)	45±2
Current Temperature Coefficient of Isc (%/°C)	0.03±0.01
Voltage Temperature Coefficient of Voc (%/°C)	-0.34±0.01
Temperature Coefficient of Im (%/°C)	-0.05±0.01
Temperature Coefficient of Vm (%/°C)	-0.50±0.01
Temperature Coefficient of Pm (%/°C)	-0.40±0.05



### Guarantee:

- 5-years product guarantee
- 10-years performance guarantee at 90% power output
- 25-years performance guarantee at 80% power output

### Note:

1. STC: Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM=1.5
2. Nominal Operating Cell Temperature above data is only for reference
3. Deviation of Vm(V), Im(A), Voc(V) and Isc(A) of ±10%

