

250W - 280W Monocrystalline Module



# Made in Taiwan - Independent OST Factory Audit Completed

Enhance Photovoltaic Modules surpass all international recognised quality standards and are produced by one of the world's leading fully vertical integrated photovoltaic module producers on the worlds most advanced European produced fully automated robotic production lines, this process ensures exceptionally high quality, reliability and performance, even in low light conditions.



## High Module Efficiency

Module efficiency up to 17.2% achieved through advanced cell technology and manufacturing capabilities.



#### Extended wind & snow load tests

Pass ASTM E330; Maximum wind speed: 197 km/h (safety factor 3) (short-side installation ≥ 2400 Pa guaranteed)



#### Positive Power tolerance

Positive tolerance of up to +4.99 watts delivers higher outputs.



### Excellent weak light performance

3.5% relative efficiency reduction at low irradiance ( 200W/m<sup>2)</sup>



#### Anti-PID

Potential Induced Degradation Test Certified according to IEC 62804.



### Prolonged aging test

2000 hour damp heat test; 400 Thermal cycles



#### **Corrosive Resistant**

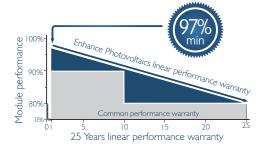
Robust design & materials ensures reliability whilst operating under the most extreme conditions such as marine or farming environments.





### **Superior Protection**

Tyco IP 67 rated junction box protects against extreme weather conditions and dust



## Comprehensive Warranty

Market leading 12.5 year product warranty

## **Linear Warranty**

Guaranteed 25 year linear performance. Min 97% after the first year, afterwards Max 0.6% reduction p.a up to 25 years.

www.enhance-photovoltaics.com



### **Electrical Data**

		XM-250	XM-255	XM-260	XM-265	XM-270	XM-275	XM-280
Nominal Power Watt P <sub>max</sub>	Wp	250	255	260	265	270	275	280
Power Output Tolerance P <sub>max</sub>	W				0~+4.99			
Maximum Power Voltage V <sub>mpp</sub>	V	29.64	30.09	30.54	30.98	31.44	31.16	31.33
Maximum Power Current I	Α	8.44	8.48	8.52	8.56	8.59	8.83	8.95
Open Circuit Voltage V <sub>oc</sub>	V	38.05	38.13	38.21	38.29	38.37	38.96	39.04
Short Circuit Current I <sub>sc</sub>	Α	9.04	9.05	9.07	9.08	9.09	9.37	9.53
Module Efficiency n <sub>m</sub>	%	15.4	15.7	16.0	16.3	16.6	16.9	17.2

<sup>\*</sup>Electrical data under Standard Test Conditions (STC): Cell Temperature of 25°C, Irradiance 1000 W/m², AM 1.5  $\,$ 

### **Mechanical Data**

Item	Specification	
Dimensions	1640mm (I) x 992mm (w) x 40mm (d)	
Weight	18.5 kg	
Solar Cell	60 monocrystalline 6" silicon cells (156mm x 156mm)	
Front Glass	Anti-reflective tempered solar glass, 3.2mm thickness	
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)	
Back Cover	Composite film	
Junction Box	Tyco IP 67 rated	
Frame	Anodized aluminium frame, black	

### **Operating Conditions**

Item	Specification	
Mechanical Load	5400pa ( Certified by TUV Rheinland )	
Maximum System Voltage	DC 1000 V	
Series Fuse Rating	15 A	
Operating Temperature	-40 to 85 °C	

# **Temperature Characteristics**

Item	Specification
Nominal Operating Cell Temperature	44.1°C ± 2°C
Temperature Coefficient of I <sub>sc</sub>	0.042 % / °C
Temperature Coefficient of V <sub>oc</sub>	-0.318 % / °C
Temperature Coefficient of P <sub>max</sub>	-0.427 % / °C

<sup>\*</sup>Nominal Operating Cell Temperature (NOCT): Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed Im/s

## Loading Volume

Item	Specification
Container	728 pcs
Pallet	26 pcs

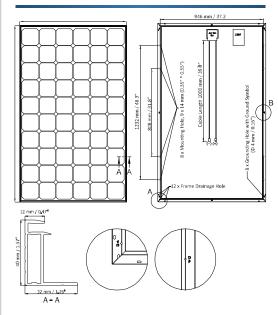
#### **Contact Details**

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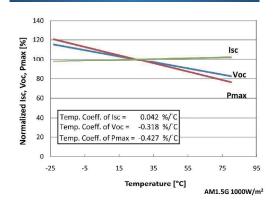
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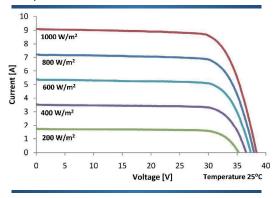
#### Front & Back View



## Dependence on Temperature



## Dependence on Irradiance









<sup>\*</sup>Specifications subject to change

<sup>\*</sup>Please refer to Enhance Photovoltaics standard module installation guide before using the product \*Reduction in efficiency from 1000 W/m² to 200 W/m² at 25°C: 3.5%  $\pm$  2%