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The Black-Faced Spoonbill

is one of the rarest birds on the planet. Only 2041 of them, at most, left in the world as recorded in January 2009. Every year, they will fly over half of the globe to spend their winter in the southern Taiwan. A place not very far from Auria Solar. Like the Black-Faced Spoonbill, Auria Solar is one of the rarest solar companies in the world that determine to answer the need of its customers and promise to deliver its best products.



Photographer / Pan Pai-



Micromorph Solar Modules

Company Profile

Founded in 2007, AURIA SOLAR is a company pioneering in research, development, and production of micromorph thin-film solar modules. With its own innovations and state-of-the-art technologies filing 32 patents for world-class high-efficiency modules, in Sep. of year 2009, Auria Solar has been able to produce modules with stabilized 125W output power and superior module conversion efficiency of 9.5% from its 60MW – the worldwide largest single micromorph production line. Auria Solar aims to offer the world with sustainable energy of micromorph photovoltaic modules with stabilized high-efficiency of 11% by 2010 and low-cost of \$1/W by 2011.

Auria Solar at a glance

- * Location : Tainan Science Park, TAIWAN
- * Factory Area : 23,000m²
- * Clean-Fab (class I, 1,000~10,000) : 7,571m²
- * Tandem Micromorph Capacity : 60MW



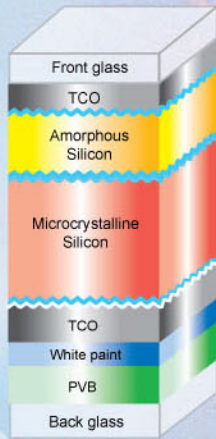
Product Features:

- * Total solution for mounting system which ensures easy, quick, and optimized installation.
- * Robust structure with double-glass design and PVB lamination material.
- * 20-year long product warranty.
- * Certified by IEC 61646 & 61730 : ID 000024521 (TÜV Rheinland).

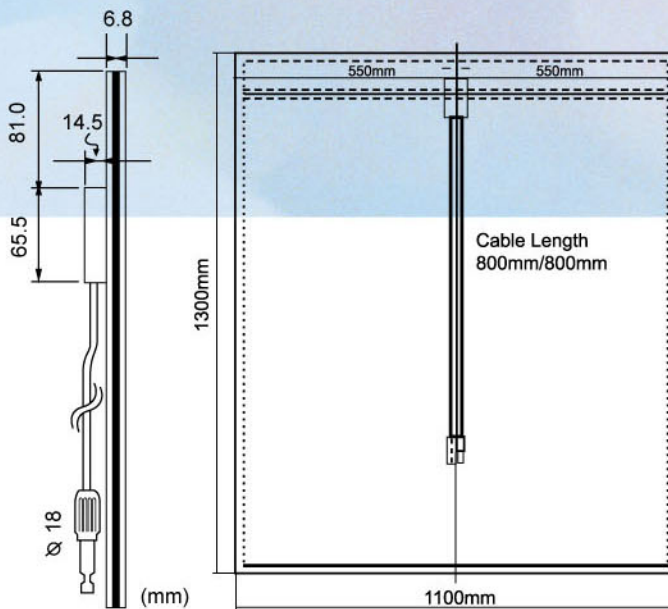
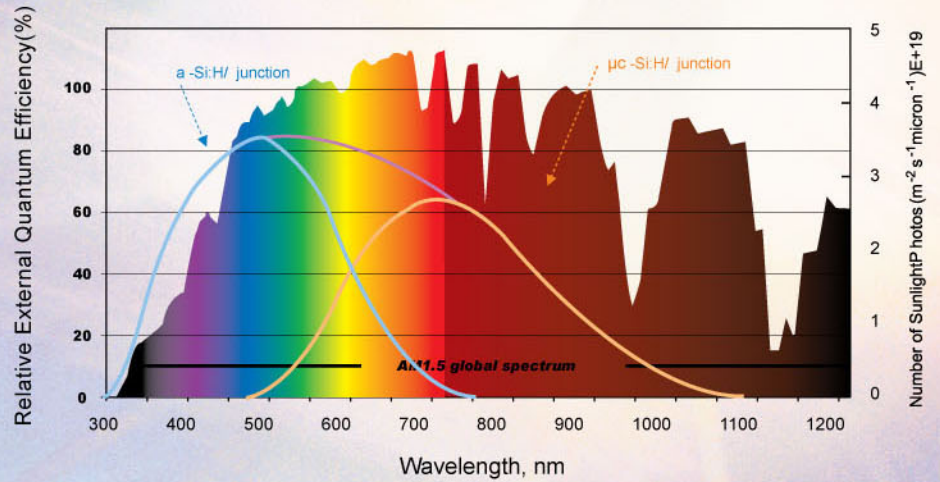


Auria Micromorph Thin-Film Photovoltaic Modules

Auria micromorph solar modules have a tandem structure with an additional microcrystalline absorber underneath amorphous layer, which converts the energy of the red and near infrared spectrum, allowing an efficiency boost of approximately 50%.



Micromorph Spectrum Response



Side view

Rear view

Front view

Why Auria Solar

* Moon Technology

1. Efficiency Enhancement
Stabilized output power (P_{mpp}) enhancement up to 5%~10%.
2. Greater Energy Yield
Excellent low light performance through significantly improved shunt resistance (R_{sh}), energy yield is 10~15% higher.
3. Superior Reliability
Leakage resistance surpass the criteria of TÜV damp-heat test.

* Experienced and innovative R&D team

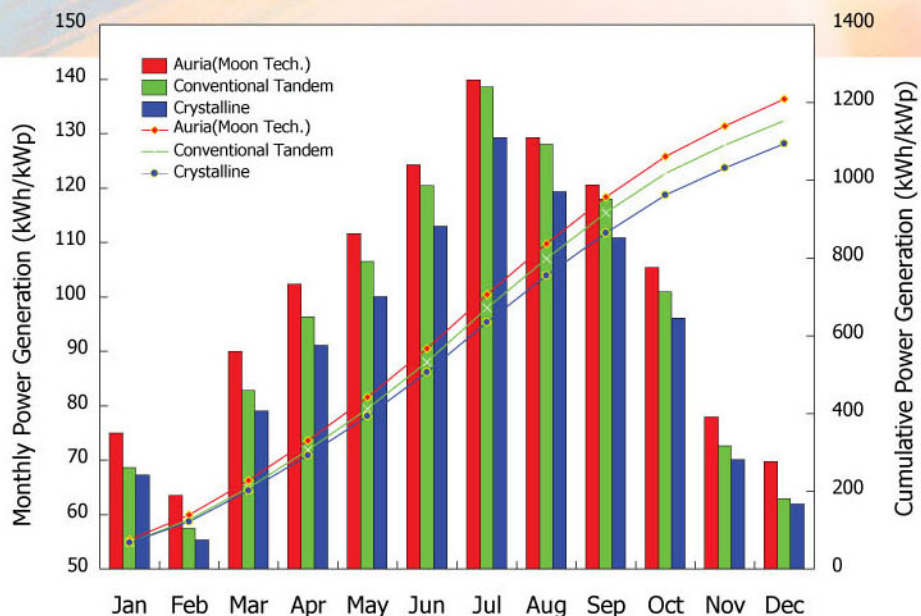
1. More than 32 patents have been filed to incomparably increase module efficiency.
2. Considerable R&D projects funded by Taiwanese Government enable Auria Solar with sufficient resources to execute its first-rate R&D work.

* Premium Quality Control

1. Enterprise Resource Planning (ERP) software from SAP implemented to record every raw material source and provide traceability to the module life time.
2. Highly quality clean room at class-1000 level to reduce the particle pollution and increase the product reliability.
3. 100% fully automated production line with advance MES system, eliminating the mistake of manual operation.

* Diversity of products

See-Through Micromorph modules with wide ranges of colors for customer selection to integrate in BIPV.



Auria Micromorph Thin Film Modules

Auria M-series Product Specification

Electrical Characteristics (STC: 1000W/m²; 25°C; AM1.5)

Product Name	M105000	M110000	M115000	M120000	M125000	M130000	M135000	M140000
Rated Power (Wp ± 5%)	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0
Max. Power Voltage Vmpp (V)	92.5	93.3	94.1	94.8	95.3	95.8	96.3	96.8
Max. Power Current Imp (A)	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.45
Open Circuit Voltage Voc (V)	126.2	126.6	127.0	127.4	127.8	128.2	128.6	129.0
Short Circuit Current Isc (A)	1.39	1.43	1.48	1.53	1.57	1.62	1.67	1.72

Qualifications and Certificates (TÜV Rheinland)

IEC 61646	ID: 0000024521
IEC 61730	ID: 0000024521
CE	Available

Limited Warranty

Material and Workmanship Warranty	5 Years
90% of the Minimal Rated Power Output	10 Years
80% of the Minimal Rated Power Output	20 Years

Mechanical Characteristics

Dimensions	1,100 mm x 1,300 mm
Thickness	6.8 mm (without Junction Box)
Weight	25kg
Frame Material	Optional
Junction Box	Multi-Contact, with Bypass Diode
Connectors	MC4 compatible
Glass Type	Front: 3.2mm low iron glass Back: 3.2mm tempered glass

Electrical Data

NOCT	45°C (Nominal Operation Cell Temperature)
Temperature Coefficient of Pmpp (%/K)	- 0.25
Temperature Coefficient of Voc (%/K)	- 0.30
Temperature Coefficient of Isc (%/K)	+0.07
Maximum System Voltage (V)	1000
Reverse Current Overload (A)	3

Low Irradiation Electrical Characteristics (200W/m²; 25°C; AM 1.5)

Product Name	M105000	M110000	M115000	M120000	M125000	M130000	M135000	M140000
Rated Power (Wp)	16.8	17.6	18.4	19.2	20.0	20.8	21.6	22.4
Max. Power Voltage Vmpp (V)	82.4	83.0	83.7	84.4	84.8	85.2	85.7	86.2
Max. Power Current Imp (A)	0.20	0.21	0.22	0.23	0.24	0.24	0.25	0.26
Open Circuit Voltage Voc (V)	113.1	113.4	113.8	114.1	114.5	114.8	115.2	115.5
Short Circuit Current Isc (A)	0.26	0.27	0.28	0.29	0.30	0.30	0.31	0.32

The image shows the exterior of a modern building with a large, colorful 'AURIA' logo mounted on a stone wall. The logo is composed of letters in a rainbow gradient. To the right of the logo is a rectangular window showing a sunset scene. The building has a glass facade and a metal grid structure above it. The sky is clear and blue.The image shows the 'AURIA' logo in a rainbow gradient, centered on a white background. The letters are bold and stylized, with a slight shadow effect.

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