

**Test Report**

Applicant: Worldwide Energy and Manufacturing USA Co., Ltd  
Address: RM1708 C1, Nanfung Tower, 173 Desvoeux RD Central HongKong

## Sample Description

Product : PV Module  
Brand Name/Trade Name : Amerisolar  
Manufacturer : Worldwide Energy and Manufacturing (Nantong) Co., Ltd  
Address : No. 88 Qifeng Road, Rucheng Town, Rugao, Jiangsu, P. R. China  
Model No. of Manufacturer : AS-6P30-230W  
(The types below can be covered: AS-5M18, AS-5M, AS-6M18, AS-6P18, AS-6M27, AS-6P27, AS-6M30, AS-6P30, AS-6M and AS-6P series)

No. of Samples : 3

Date of receipt of test item : 2012-04-19

Date (s) of performance of test : 2012-04-30 ~ 2012-06-05

Date of issue : 2012-06-06

Testing Laboratory : Intertek Testing Services Shanghai.

Test location : 1-2F, No. 2, Alley 1218, Wan Rong Road, Shanghai, China 200436

Service Requested : Testing to compliance with IEC 61701, First edition, 1995.3

Method : IEC 61701, First edition, 1995.3  
IEC 61215:2005 Ed2

Result : See the attached sheets

Conclusion : The testing of submitted sample is **complied** with the above safety standards/requirements.


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Prepared and checked by:  
Intertek Testing Services  
Shanghai Ltd.

Reviewed by  
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Engineer  
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- The results reported in this test report shall refer only to the sample actually checked and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
- This report shall not be reported except in full without prior authorization from Intertek Testing Services Shanghai Limited.
- The services are provided subject to the terms and condition of the company, which can be furnished upon request.

**Test Report**

<b>GENERAL INFORMATION</b>	
<b>Test item particulars:</b>	
Accessories and detachable parts included in the evaluation .....	-
Options included .....	-
Possible test case verdicts:	-
Abbreviations used in the report:	
I <sub>mp</sub> – Maximum power current	V <sub>oc</sub> – Open circuit voltage
I <sub>sc</sub> - Short circuit current	FF – Fill Factor
P <sub>mp</sub> – Maximum power	α – Current temperature coefficient
V <sub>mp</sub> – Maximum power voltage	β – Voltage temperature coefficient
STC – Standard Test Conditions	δ – power temperature coefficient
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object .....	N/A
- test object does meet the requirement .....	Pass (P)
- test object does not meet the requirement .....	Fail (F)
<b>General remarks:</b>	
<p>The test results presented in this report relate only to the object tested.            This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.            "(see Enclosure #)" refers to additional information appended to the report.            "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma (point) is used as the decimal separator.</p>	

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Initial	TABLE: Visual inspection (Initial)	—
Sample #	Nature and position of initial findings – comments or attach photos	—
669081103 100905	No findings	P
669081102 201209	No findings	
669081102 201208	No findings	
Supplementary information:N/A		

Initial	TABLE: Maximum power determination (initial)	—			
Module temperature [°C] .....	25	—			
Irradiance [W/m <sup>2</sup> ]. ....	1000	—			
Sample #	Voc [V]	Vmp [V]	Isc [A]	Imp [A]	Pmp [W]
669081103100905	36.93	30.07	8.39	7.69	230.32
669081102201209	36.92	30.06	8.41	7.65	230.08
669081102201208	36.93	30.17	8.35	7.64	230.48
Supplementary information: N/A					

Initial	TABLE: Insulation test (initial)	—			
Test Voltage applied [V] .....	1000	—			
Sample #	Measured	Required	Dielectric breakdown		Result
	MΩ	MΩ	Yes (description)	No	—
669081103 100905	>100	40.0	--	No	P
669081102 201209	>100	40.0	--	No	P
669081102 201208	>100	40.0	--	No	P
Supplementary information: N/A					

	TABLE: SALT MIST CORROSION TEST	P
Total salt mist time .....	96 hours	—
Supplementary information: The test method used is IEC 60068-2-11; the NaCl solution PH = 6.7.		
Visual inspection after Salt Mist test		—
Sample #	Nature and position of initial findings – comments or attach photos	—

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6690811031 00905	No findings and no abnormal parts					P
6690811022 01209	No findings and no abnormal parts					
6690811022 01208	No findings and no abnormal parts					
Supplementary information: N/A						
Maximum power determination after Salt Mist test					P	
Module temperature [°C] .....				25	—	
Irradiance [W/m <sup>2</sup> ] .....				1000	—	
Sample #	Voc [V]	Vmp [V]	Isc [A]	Imp [A]	Pmp [W]	
669081103100905	36.90	30.06	8.39	7.69	231.18	
669081102201209	36.77	30.01	8.39	7.62	228.69	
669081102201208	36.77	30.22	8.39	7.65	231.19	
Pmp degradation after this test [%] ≤ 5% .....				+0.3/ -0.6/+0.3		P
Insulation test after Salt Mist test					P	
Test Voltage applied [V] .....				1000	—	
Sample #	Measured	Required	Dielectric breakdown		Result	
	MΩ	MΩ	Yes (description)	No	P	
66908110 3100905	>100	40.0	--	No	P	
66908110 2201209	>100	40.0	--	No	P	
66908110 2201208	>100	40.0	--	No	P	
Supplementary information: N/A						