



## TEST DISCIPLINE: ELECTRONICS

### General details

<b>Customer / Applicant</b>	<b>BLUEBIRD SOLAR PRIVATE LIMITED</b> 70, FIRST FLOOR, RAJASTHANI UDYOG NAGAR, INDUSTRIAL AREA, DELHI 110033, INDIA		
<b>Manufacturer</b>	<b>BLUEBIRD SOLAR PRIVATE LIMITED</b> 70, FIRST FLOOR, RAJASTHANI UDYOG NAGAR INDUSTRIAL AREA, DELHI 110033, INDIA		
<b>Program</b>	NABL		
<b>Test Lab Location</b>	(a) UL Bangalore	Refer to Cover page for the UL address	
<b>Item Under Test</b>	Multi-Crystalline Photovoltaic Module		
<b>Model</b>	"Multi crystalline PV Module- Model BBS300 (300W)		
<b>Number of Samples</b>	One sample of the PV module BBS300 Has been submitted by the applicant for testing. Represented the below samples BBS300, BBS290, BBS280, BBS270, BBS250, BBS240, BBS230, BBS220, BBS210, BBS200, BBS190, BBS150, BBS140, BBS120, BBS110, BBS100, BBS080, BBS075, BBS040, BBS020, BBS010, BBS005, BBS003		
<b>UL Sample Identification</b>	UL Sample no. 254412	Refer Summary of Test results for multiple samples	
<b>Manufacturer Serial Number (if any)</b>	Serial No. BBS6F72P160230005		
<b>Condition of IUT on receipt</b>	Good		
<b>Date of Receipt</b>	18 April 2016		
<b>Applicable Standard</b>	<b>IEC 61701- Standard for SALT MIST CORROSION TESTING OF PHOTOVOLTAIC (PV) MODULES, First Edition, Issued on 1995</b>		
<b>Date of Testing (Start date)</b>	19 April 2016	<b>End Date</b>	25 April 2016
<b>UL general^ ambient condition</b>	<b>Temperature in °C</b>		25 +3/-5°C
	<b>Relative humidity in %</b>		45-70 %
<b>Date of Reporting</b>	27 June 2013		
<b>Test In-charge</b>	Prathap R		

 Moumita Debnath Project Engineer	 Ashish Mathur Engineering Manager
<b>Reviewed by</b>	<b>Authorized signatory</b>

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## General Remarks

TESTING OF PHOTOVOLTAIC (PV) MODULES as per IEC 61701, First Edition, Issued on 1995. According to the applicant declaration, Wattage of PV Module of lower side using the same Aluminum frame section and anodizing process has been include in the Report.

### AL Frame details:

1. Frame manufacturer Name: **Global Aluminum Private Limited.**  
5-2-196/1, Distillery Rd, Hyderbasthi, Rani Gunj,  
Secunderabad, Telangana 500003,  
**Type extruded AL frame, Grade 6063-T6**
2. Anodizing process: Sulfuric Acid Anodizing Process with Silver Mat Finish
3. Anodizing thickness (Thickness of Aluminum Coating in microns): 20 microns

## Description of Item under Test (IUT)

1 Sample of crystalline photovoltaic module, Model BBS300 was sent for testing representing the rest of the modules listed in cover page with same frame and anodizing process.

## Summary of Test Results

Test No.	Test Name	Test Parameter	Standard & Clause Number	UL Sample Identification	Result
1	Visual Inspection Test (Before Salt Mist Test)	The Visual inspection before Salt mist test __Did not__ exhibit any mechanical deterioration or corrosion on solar modules.	IEC 61215, Ed. 2 clause 10.1	254412	P
2	Maximum Power Determination (Before Salt Mist Test)	Maximum power attained:- 309.971Watt	IEC 61215, Ed. 2 clause 10.2		P
3	Insulation Test (Before Salt Mist Test)	4800 MΩ	IEC 61215, Ed. 2 clause 10.3		P
4	Salt Mist Test (96 hours)	No mechanical deterioration or corrosion of module components was observed	IEC 61701, Ed. 1		P
5	Visual Inspection Test (After Salt Mist Test)	The Visual inspection after Salt mist test _did not__ exhibit any mechanical deterioration or corrosion on solar modules.	IEC 61215, Ed. 2 clause 10.1		P
6	Maximum Power Determination (After Salt Mist Test)	Maximum power attained:- 309.952Watt	IEC 61215, Ed. 2 clause 10.2		P
7	Insulation Test (After Salt Mist Test)	>4000MΩ	IEC 61215, Ed. 2 clause 10.3		P

**P: Meets the requirements    F: Does not meet the requirement    NA: Not applicable**

Reviewed by signature:  
12-LO-F0851, Issue 4.0