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SUMMARY OF TEST REPORTS NO 4789985723.1.1-BIS-S1 DATED(mm/dd/yyyy): 12/28/2021

ULR No: TC616821100001023F

(Number of pages in test report: Page no. 01 to 110)

TEST FORMAT AS PER IS 14286 : 2010 (First Revision)

1. Name of manufacturer:	UNIQUE SUN POWER LLP
2. Product:	Crystalline Silicon Photovoltaic (PV) Modules
3. Models:	<p><b>Representative Model: SUN72P335</b></p> <p><b>Series Models:</b></p> <p>72 Full Cell poly crystalline series models: SUN72P333, SUN72P330, SUN72P325, SUN72P320, SUN72P315, SUN72P310</p> <p>66 Full Cell poly crystalline series models: SUN66P305, SUN66P300, SUN66P290, SUN66P280</p> <p>60 Full Cell poly crystalline series models: SUN60P275, SUN60P270, SUN60P265, SUN60P260,</p> <p>54 Full Cell poly crystalline series models: SUN54P250, SUN54P245, SUN54P240, SUN54P230,</p> <p>48 Full Cell poly crystalline series models: SUN48P220, SUN48P210, SUN48P205</p> <p>36 Full Cell poly crystalline series models: SUN36P165, SUN36P160, SUN36P155</p> <p>36 Cut Cell poly crystalline series models: SUN36P150, SUN36P135, SUN36P130, SUN36P125, SUN36P120, SUN36P110, SUN36P105, SUN36P100, SUN36P090, SUN36P080, SUN36P075, SUN36P070, SUN36P060, SUN36P055, SUN36P050, SUN36P040, SUN36P037, SUN36P030.</p>
4. Model differences provided	YES
5. Model differences verified as per MNRE Guidelines for series formulation	YES
6. Test Results:	

SL	TEST REQUIREMENTS	CLAUSE	VERDICT
1	Marking	4	P
2	Visual Inspection	10.1	P
3	Maximum Power Determination	10.2	P
4	Insulation Test	10.3	P
5	Measurement of Temperature Coefficients.	10.4	P
6	Measurement of NOCT	10.5	P
7	Performance at STC and NOCT	10.6	P
8	Performance at low irradiance.	10.7	P
9	Outdoor exposure test	10.8	P
10	Hot-spot endurance test	10.9	P
11	UV preconditioning	10.10	P
12	Thermal cycling test	10.11	P
13	Humidity freeze test	10.12	P

UL India Private Limited

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CIN: U74200KA1997PTC023189

TRF No. \_IS 14286\_V1.0

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and does not require signature on all pages.



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14	Damp heat test	10.13	P
15	Robustness of termination test	10.14	P
16	Wet leakage current test	10.15	P
17	Mechanical load test	10.16	P
18	Hail test	10.17	P
19	Bypass diode thermal test	10.18	P

**General Information:**

1. The conformity certificates of critical components are verified to ensure complete testing of apparatus under test and details regarding harmonized IEC/UL standards (where IS standards are not available) are also provided in the list of critical component.

**CONCLUSION:**

- 1) Sample meets all relevant requirements of IS 14286 : 2010 (First Revision): Yes
- 2) ~~Sample fails to meet the following test requirements:-~~

I, hereby, undertake that the verdict stated in the test reports for all the tests matches with the test results. The sample meets all relevant requirements of IS 14286: 2010(First Revision)/ ~~does not meet the requirements stated above at 2)~~ of conclusion. If any deviation is found, suitable punitive action may be taken by BIS.

**Date (mm/dd/yyyy): 12/28/2021**

**(Signature of Authorized person)**




TC- 6168



Test Report issued under the responsibility of:

<b>TEST REPORT</b>	
<b>IS 14286: 2010 First Revision</b>	
<b>Crystalline Silicon Terrestrial Photovoltaic (PV) Modules</b>	
<b>- Design Qualification and Type Approval</b>	
Report Reference No.....:	4789985723.1.1-BIS-S1
ULR No. ....:	TC616821100001023F
Test Request No. ....:	SC21SPI00694
Bar code.....:	81547CRS
Encoded No. ....:	21E9804N
Date of issue.....(mm/dd/yyyy):	12/28/2021
Total number of pages.....	110
<b>Testing Laboratory</b> .....:	UL India Pvt. Ltd.
Address.....:	Laboratory Building, Kalyani Platina Campus, Survey. No. 129/4, EPIP Zone, Phase II, Whitefield, IN-560066, Bangalore, India
<b>Applicant's name</b> .....	UNIQUE SUN POWER LLP
Address.....:	BL No. 2281/2/1/1, Sub Plot. 1-A, Near Areth Minnor Canal, Village - Tadkeshwar, Ta - Mandvi, Surat, Gujarat, 394170, INDIA
<b>Test specification</b> .....:	
Standard .....	IS 14286: 2010
Test procedure.....:	IS 14286: 2010
Non-standard test method .....	N/A
<b>Test Report Form No.</b> .....	IS 14286_V1.0
Test Report Form Originator .....	BIS
Master TRF .....	Dated: 19.02.2018



Test item description..... :	Photovoltaic (PV) Module(s)
Trade Mark..... :	
Manufacturer..... :	UNIQUE SUN POWER LLP
Factory..... :	BL No. 2281/2/1/1, Sub Plot. 1-A, Near Areth Minnor Canal, Village - Tadkeshwar, Ta - Mandvi, Surat, Gujarat, 394170 INDIA
Model/Type reference..... :	<b>Representative Model: SUN72P335</b> Series Models: 72 Full Cell poly crystalline series models: SUN72P333, SUN72P330, SUN72P325, SUN72P320, SUN72P315, SUN72P310 66 Full Cell poly crystalline series models: SUN66P305, SUN66P300, SUN66P290, SUN66P280 60 Full Cell poly crystalline series models: SUN60P275, SUN60P270, SUN60P265, SUN60P260, 54 Full Cell poly crystalline series models: SUN54P250, SUN54P245, SUN54P240, SUN54P230, 48 Full Cell poly crystalline series models: SUN48P220, SUN48P210, SUN48P205 36 Full Cell poly crystalline series models: SUN36P165, SUN36P160, SUN36P155 36 Cut Cell poly crystalline series models: SUN36P150, SUN36P135, SUN36P130, SUN36P125, SUN36P120, SUN36P110, SUN36P105, SUN36P100, SUN36P090, SUN36P080, SUN36P075, SUN36P070, SUN36P060, SUN36P055, SUN36P050, SUN36P040, SUN36P037, SUN36P030.
Ratings..... :	<b>Maximum System Voltage: 1500V</b> 72 Full Cell poly crystalline models: <b>SUN72P335</b> , SUN72P333, SUN72P330, SUN72P325, SUN72P320, SUN72P315, SUN72P310 66 Full Cell poly crystalline series models: SUN66P305, SUN66P300, SUN66P290, SUN66P280 60 Full Cell poly crystalline series models: SUN60P275, SUN60P270, SUN60P265, SUN60P260, 54 Full Cell poly crystalline series models: SUN54P250, SUN54P245, SUN54P240, SUN54P230, <b>Maximum System Voltage: 1000V</b> 48 Full Cell poly crystalline series models: SUN48P220, SUN48P210, SUN48P205 36 Full Cell poly crystalline series models: SUN36P165, SUN36P160, SUN36P155 <b>Maximum System Voltage: 600V</b> 36 Cut Cell poly crystalline series models:



	<p>SUN36P150, SUN36P135, SUN36P130, SUN36P125, SUN36P120, SUN36P110, SUN36P105, SUN36P100, SUN36P090, SUN36P080, SUN36P075, SUN36P070, SUN36P060, SUN36P055, SUN36P050, SUN36P040, SUN36P037, SUN36P030.</p> <p><b>Maximum over current protection rating: 20A</b></p> <p>72 Full Cell poly crystalline models: <b>SUN72P335</b>, SUN72P333, SUN72P330, SUN72P325, SUN72P320, SUN72P315, SUN72P310</p> <p><b>Maximum over current protection rating: 15A</b></p> <p>66 Full Cell poly crystalline series models: SUN66P305, SUN66P300, SUN66P290, SUN66P280</p> <p>60 Full Cell poly crystalline series models: SUN60P275, SUN60P270, SUN60P265, SUN60P260,</p> <p>54 Full Cell poly crystalline series models: SUN54P250, SUN54P245, SUN54P240, SUN54P230,</p> <p>48 Full Cell poly crystalline series models: SUN48P220, SUN48P210, SUN48P205</p> <p>36 Full Cell poly crystalline series models: SUN36P165, SUN36P160, SUN36P155</p> <p>36 Cut Cell poly crystalline series models: SUN36P150, SUN36P135, SUN36P130, SUN36P125, SUN36P120, SUN36P110, SUN36P105, SUN36P100, SUN36P090, SUN36P080, SUN36P075, SUN36P070, SUN36P060, SUN36P055, SUN36P050, SUN36P040, SUN36P037, SUN36P030</p> <p>See specific model rating in General Product information</p>
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