

<b>Prüfbericht - Nr.:</b> 19631086 001		Seite 1 von 6	
Test Report No.		Page 1 of 6	
<b>Auftraggeber:</b> Client	Solar Idea Pvt. Ltd. 8-2-277/A/7, Plot No.126, Road No.2, Banjara Hills, Hyderabad - 500034, Telangana, India		
<b>Gegenstand der Prüfung:</b> Test item	Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller		
<b>Bezeichnung:</b> Identification	1500VA	<b>Serien-Nr.:</b> Serial No.:	091604002437
<b>Wareneingangs-Nr.:</b> Receipt No.	1803169361	<b>Eingangsdatum:</b> Date of receipt:	2016.09.30
<b>Prüfort:</b> Testing location	TÜV Rheinland (India) Pvt. Ltd. Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		
<b>Prüfgrundlage:</b> Test specification	Rated Output Efficiency measurement with Resistive load as per table 1 of IEC 61683:1999 as per customer's requirement.		
<b>Prüfergebnis:</b> Test Result	Refer section " Summary of testing"		
<b>Prüflaboratorium:</b> Testing Laboratory	TÜV Rheinland (India) Pvt. Ltd. Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		
<b>geprüft/tested by:</b>	<b>kontrolliert/reviewed by:</b>		
2016-11-18	Manjunath.K / Sr. Engineer	2016-11-18	Kamalaksha C.S / Sr. Manager
<b>Datum</b> Date	<b>Name/Stellung</b> Name/Position	<b>Unterschrift</b> Signature	<b>Datum</b> Date
			<b>Name/Stellung</b> Name/Position
			<b>Unterschrift</b> Signature
<b>Sonstiges/Other Aspects:</b>			
According to the customer's requirement, the rated output efficiency measurement test conducted with resistive load.			
This report consists of 6 pages including the following attachments:			
Attachment 1: Photo Document			
<b>Abkürzungen:</b>	Pass = entspricht Prüfgrundlage	<b>Abbreviations:</b>	Pass = passed
Fail = entspricht nicht Prüfgrundlage		Fail = failed	
NA = nicht anwendbar		NA = not applicable	
NT = nicht getestet		NT = not tested	
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfreichens.</b>			
<i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>			

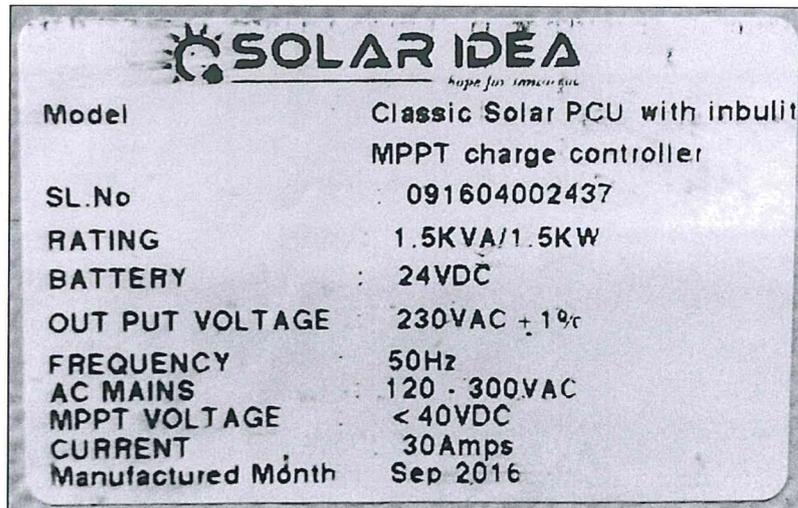
TÜV Rheinland (India) Pvt. Ltd. - 82/A, West Wing, 3rd Main Road, - Electronic City Phase I, - Bangalore - 560100 - INDIA  
Tel: +91-80 3805 9688 - Fax: +91-80 3055 4342 - Web: www.tuv.com - Rev: 2.0 2013-05-13 / approved: G. Kalpana Varma

**TEST REPORT**  
**EFFICIENCY TESTING**

<b>Report reference No</b> .....		19631086 001																	
Tested by (printed name and signature).....		(see cover page) .....																	
Approved by (printed name and signature).....		(see cover page) .....																	
Date of issue .....		(see cover page)																	
<b>Testing Laboratory Name</b> .....		TÜV Rheinland (India) Pvt. Ltd.																	
Address .....		Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India																	
<b>Applicant's Name</b> .....		Solar Idea Pvt. Ltd.																	
Address .....		8-2-277/A/7, Plot No.126, Road No.2, Banjara Hills, Hyderabad – 500034, Telangana, India																	
<b>Test specification</b> .....																			
Standard .....		IEC 61683:1999 as per customer's requirement.																	
Test procedure .....		QMA 37.501.03																	
Non-standard test method .....		N/A																	
<b>Test Report Form No.</b> .....		TUVR_EFF_R1																	
TRF originator .....		TUVR																	
Master TRF .....		2009.08.20																	
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Test item description .....		Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller																	
Manufacturer .....		Solar Idea Pvt. Ltd.																	
Model and/or type reference .....		1500VA																	
Serial number .....		091604002437																	
Rating(s) .....		<table style="width: 100%; border: none;"> <tr> <td>RATING</td> <td>:1.5KVA / 1.5KW</td> </tr> <tr> <td>BATTERY</td> <td>:24VDC</td> </tr> <tr> <td>OUT PUT VOLTAGE</td> <td>:230VAC ± 1%</td> </tr> <tr> <td>FREQUENCY</td> <td>:50Hz</td> </tr> <tr> <td>AC MAINS</td> <td>:120 – 300VAC</td> </tr> <tr> <td>MPPT VOLTAGE</td> <td>:&lt;40VDC</td> </tr> <tr> <td>CURRENT</td> <td>:30Amps</td> </tr> <tr> <td>Manufactured Month</td> <td>:Sep 2016</td> </tr> </table>		RATING	:1.5KVA / 1.5KW	BATTERY	:24VDC	OUT PUT VOLTAGE	:230VAC ± 1%	FREQUENCY	:50Hz	AC MAINS	:120 – 300VAC	MPPT VOLTAGE	:<40VDC	CURRENT	:30Amps	Manufactured Month	:Sep 2016
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Efficiency Testing

Copy of marking plate:



**General product information:**

EUT is a Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller.

**Particulars: test item vs. test requirements**

Operating condition .....: Input: High current DC Power supply (0-120V/120A)  
Output: 230VAC/50Hz with resistive load.

Condition of the equipment at the time of receipt.....: Good

**Test case verdicts**

Test case does not apply to the test object ...: N/A  
Test item does meet the requirement .....: P(Pass)  
Test item does not meet the requirement ....: F(Fail)

**Testing**

Date of receipt of test item .....: 2016.09.30  
Date(s) of performance of test .....: 2016.09.30



## Efficiency Testing

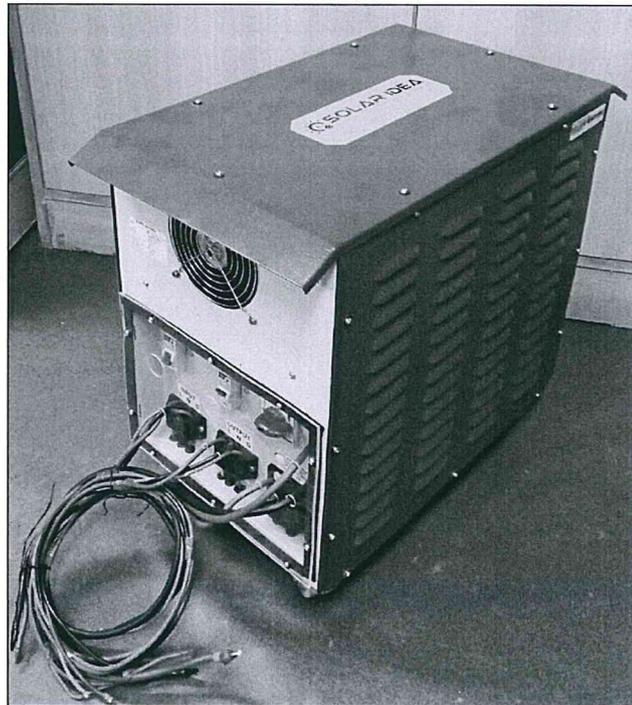
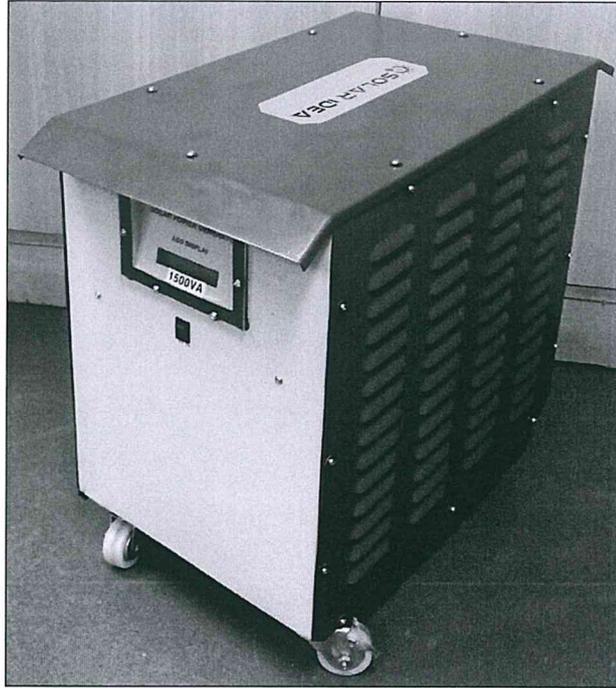
## Summary of testing:

Table 1							
Model/Type	1500VA						
SI. No.:	091604002437						
Load type:	Resistive load						
Load (%)	5	10	25	50	75	100	120
Actual load (%)	5.08	10.26	24.78	49.97	74.99	100.93	119.95
DC Input Voltage (V)	24.03	24.098	24.176	24.02	24.01	24.07	24.01
DC Input Current (A)	4.67	8.00	17.448	35.21	54.00	74.40	89.50
DC Input Power (W)	112.19	192.74	421.82	845.66	1296.76	1790.73	2148.72
Output	Frequency(Hz)	49.80	49.80	49.80	49.80	49.80	49.80
	Voltage (V)	226.38	226.03	226.57	227.60	228.41	228.59
	Current (A)	0.34	0.68	1.64	3.29	4.92	6.62
	Power Factor	1.00	0.999	0.999	1.000	1.000	1.000
	THD (V in %)	3.40	4.41	3.84	4.13	4.91	5.70
	THD (I in %)	4.79	4.83	4.15	4.33	5.03	5.85
	Power (W)	76.21	153.91	371.70	749.60	1124.80	1514.00
	Power (VA)	76.29	153.95	371.72	749.60	1124.80	1514.00
Rated Output Efficiency (%)	<b>67.93</b>	<b>79.86</b>	<b>88.12</b>	<b>88.64</b>	<b>86.74</b>	<b>84.55</b>	<b>83.74</b>
Overall Efficiency (%) (25 -100% Load)	<b>87.01</b>						
No-Load loss (W)	24.048V X 1.465A = 35.23W						
Standby loss (W)	24.048V X 1.465A = 35.23W						
Note: The above readings are taken at an ambient temperature of 25°C ± 2°C							



Efficiency Testing

Attachment-1: Photo Document



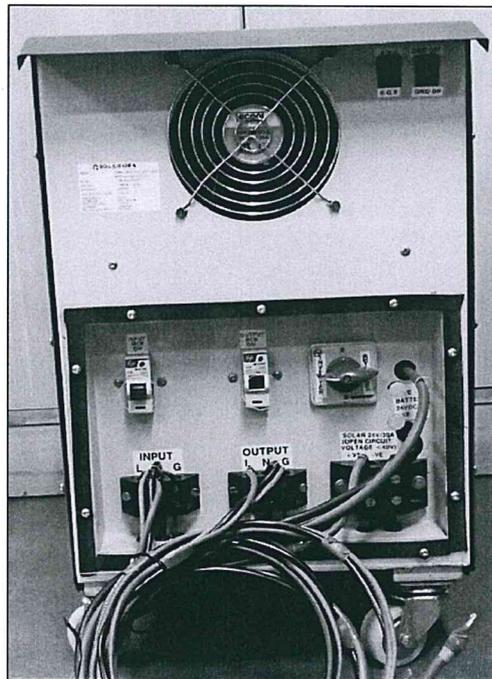
Overall View



Efficiency Testing



Front View



Rear View

\* End of Report \*