

Prüfbericht - Nr.: 19630479 001		Seite 1 von 6	
<i>Test Report No.:</i>		<i>Page 1 of 6</i>	
Auftraggeber: <i>Client:</i>	Solar Idea Pvt. Ltd. 8-2-277/A/7, Plot No.126, Road No.2, Banjara Hills, Hyderabad – 500034, Telangana, India		
Gegenstand der Prüfung: <i>Test item:</i>	Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller		
Bezeichnung: <i>Identification:</i>	2000VA	Serien-Nr.: <i>Serial No.:</i>	121510001811
Wareneingangs-Nr.: <i>Receipt No.:</i>	1803110293	Eingangsdatum: <i>Date of receipt:</i>	2015.12.22
Prüfort: <i>Testing location:</i>	TÜV Rheinland (India) Pvt. Ltd. Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		
Prüfgrundlage: <i>Test specification:</i>	Rated Output Efficiency measurement with Resistive load as per table 1 of IEC 61683:1999 as per customer's requirement.		
Prüfergebnis: <i>Test Result:</i>	Refer section " Summary of testing"		
Prüflaboratorium: <i>Testing Laboratory:</i>	TÜV Rheinland (India) Pvt. Ltd. Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		
geprüft/tested by:		kontrolliert/reviewed by:	
2016.01.27	Manjunath.K / Sr. Engineer	2016.01.27	Kamalaksha CS / Sr. Manager
<i>Datum</i> <i>Date</i>	<i>Name/Stellung</i> <i>Name/Position</i>	<i>Unterschrift</i> <i>Signature</i>	<i>Datum</i> <i>Date</i>
		<i>Unterschrift</i> <i>Signature</i>	<i>Name/Stellung</i> <i>Name/Position</i>
		<i>Unterschrift</i> <i>Signature</i>	<i>Signature</i>
Sonstiges/Other Aspects:			
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			
Abkürzungen:	P(ass) = entspricht Prüfgrundlage	Abbreviations:	P(ass) = passed
	F(ail) = entspricht nicht Prüfgrundlage		F(ail) = failed
	N/A = nicht anwendbar		N/A = not applicable
	N/T = nicht getestet		N/T = not tested
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 Prüfzeichens.			
<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>			

TEST REPORT**EFFICIENCY TESTING**

Report reference No	19630479 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)	
Testing Laboratory Name	TÜV Rheinland (India) Pvt. Ltd.	
Address.....	Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India	
Applicant's Name	Solar Idea Pvt. Ltd.	
Address.....	8-2-277/A/7, Plot No.126, Road No.2, Banjara Hills, Hyderabad – 500034, Telangana, India	
Test specification		
Standard	IEC 61683:1999 as per customer's requirement.	
Test procedure.....	QMA 37.501.03	
Non-standard test method	N/A	
Test Report Form No.	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.....	2000VA	
Serial number.....	121510001811	
Rating(s)	RATING	:2kVA/2kW
	BATTERY	:48VDC
	OUT PUT VOLTAGE	:230VAC ± 1%
	FREQUENCY	:50Hz
	AC MAINS	:120 – 300VAC
	MPPT VOLTAGE	:<80VDC
	CURRENT	:30Amps
	Manufactured Month	:OCT2015

Efficiency Testing

Copy of marking plate:



Model : Classic Solar PCU with inbuilt MPPT charge controller
 SL No : 121510001811
 RATING : 2KVA/2KW
 BATTERY : 48VDC
 OUT PUT VOLTAGE : 230VAC \pm 1%
 FREQUENCY : 50Hz
 AC MAINS : 120 - 300VAC
 MPPT VOLTAGE : \approx 80VDC
 CURRENT : 30Amps
 Manufactured Month : Dec 2015

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: 2015.12.22

Date(s) of performance of test: 2016.01.05

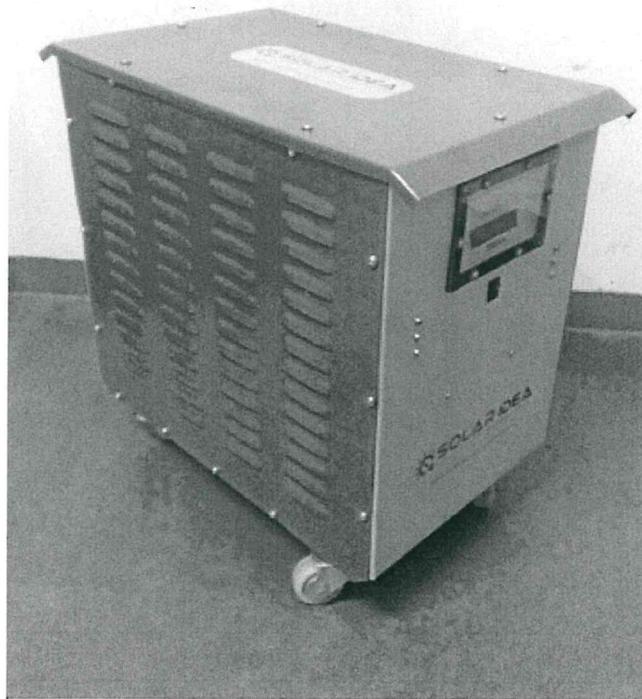
Efficiency Testing

Summary of testing:

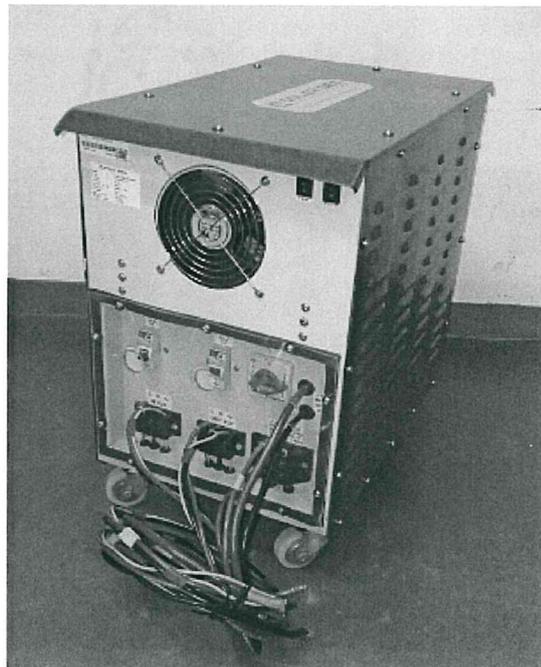
Table 1								
Model/Type	2000VA							
Sl. No.:	121510001811							
Load type:	Resistive load							
Load (%)	5	10	25	50	75	100	120	
Actual load (%)	5.14	10.29	25.01	50.31	74.76	100.72	120.27	
DC Input Voltage (V)	48.02	48.16	48	48.00	48.04	48.07	48.01	
DC Input Current (A)	3.70	5.86	12.21	23.39	34.53	46.88	56.60	
DC Input Power (W)	177.67	282.22	586.08	1122.72	1658.82	2253.52	2717.37	
Output	Frequency(Hz)	49.80	49.80	49.80	49.80	49.80	49.80	49.80
	Voltage (V)	231.01	230.88	231.37	229.81	229.97	230.45	229.87
	Current (A)	0.45	0.89	2.16	4.37	6.50	8.74	10.46
	Power Factor	1.00	0.999	1.000	1.000	1.000	1.000	1.00
	THD (V in %)	3.30	3.34	4.14	2.75	2.85	3.26	3.42
	THD (I in %)	4.33	4.00	4.25	2.89	3.01	3.41	3.56
	Power (W)	102.77	205.75	500.20	1006.10	1495.10	2014.40	2405.30
	Power (VA)	102.84	205.78	500.20	1006.10	1495.10	2014.40	2405.30
Rated Output Efficiency (%)	57.84	72.90	85.35	89.61	90.13	89.39	88.52	
Overall Efficiency (%) (25 -100% Load)	88.62							
No-Load loss	48.09V 1.60A = 76.94W							
Standby loss	48.19V 0.138A = 6.65W							
Note:	The above readings are taken at an ambient temperature of 25°C ± 2°C							

Efficiency Testing

Attachment-1: Photo Document



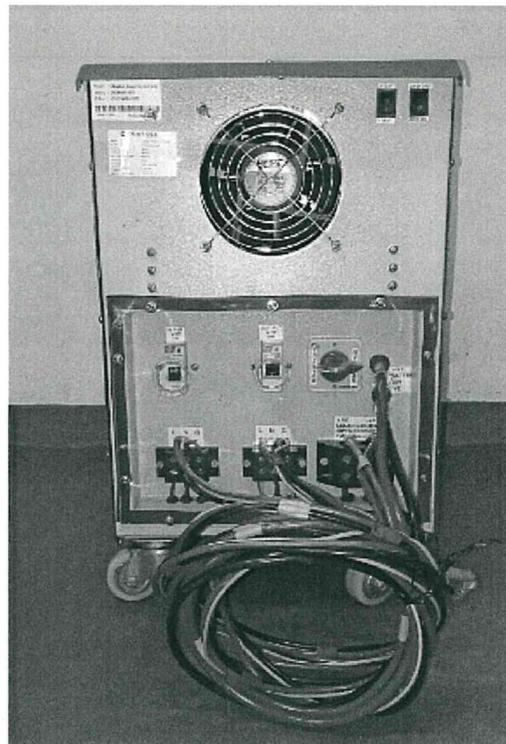
Overall View



Efficiency Testing



Front View



Rear View

* End of Report *