Prüfbericht - Nr.: *Test Report No.:*	**19630539 001**		**Seite 1 von 6** *Page 1 of 6*
Auftraggeber: *Client:*	**Solar Idea Pvt. Ltd.** 8-2-277/A/7, Plot No.126, Road No.2, Banjara Hills, Hyderabad – 500034, Telangana, India		
Gegenstand der Prüfung: *Test item:*	Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller		
Bezeichnung: *Identification:*	10KVA	**Serien-Nr.:** *Serial No.:*	11608001931
Wareneingangs-Nr.: *Receipt No.:*	1803119805	**Eingangsdatum:** *Date of receipt:*	2016.01.28
Prüfort: *Testing location:*	**TÜV Rheinland (India) Pvt. Ltd.** Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		
Prüfgrundlage: *Test specification:*	Rated Output Efficiency measurement with Resistive load as per table 1 of IEC 61683:1999 as per customer's requirement.		
Prüfergebnis: *Test Result:*	Refer section " Summary of testing"		
Prüflaboratorium: *Testing Laboratory:*	**TÜV Rheinland (India) Pvt. Ltd.** Plot No.17B, Electronic City Phase II Industrial Area, Hosur Road Bangalore - 560 100, Karnataka, India		

geprüft/*tested by:*

2016.02.15	Manjunath.K / Sr. Engineer
Datum *Date*	**Name/Stellung** *Name/Position*

Unterschrift *Signature*

kontrolliert/*reviewed by:*

2016.02.15	Kamalaksha C.S / Sr. Manager
Datum *Date*	**Name/Stellung** *Name/Position*

Unterschrift *Signature*

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***

TEST REPORT

EFFICIENCY TESTING

Report reference No ..... :	19630539 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	

Test item description ..... :	Classic Solar Power Conditioning Unit with inbuilt MPPT charge Controller	
Manufacturer ..... :	Solar Idea Pvt. Ltd.	
Model and/or type reference ..... :	10KVA	
Serial number ..... :	11608001931	
Rating(s) ..... :	RATING	:10KVA/10kW
	BATTERY	:120VDC
	OUT PUT VOLTAGE	:230VAC ± 1%
	FREQUENCY	:50Hz
	AC MAINS	:160 – 300VAC
	MPPT VOLTAGE	:<500VDC
	CURRENT	:30Amps
	Manufactured Month	:Jan 2016

Efficiency Testing

Copy of marking plate:

Model : Classic Solar PCU with Inbuilt MPPT charge controller
SL.No : 01160800193 1
RATING : 10KVA/10KW
BATTERY : 120VDC
OUT PUT VOLTAGE : 230VAC ± 1%
FREQUENCY : 50Hz
AC MAINS : 160 - 300VAC
MPPT VOLTAGE : <500VDC
CURRENT : 30Amps
Manufactured Month : Jan 2016

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 ..... :	2016.01.28
Date(s) of performance of test ..... :	2016.01.28

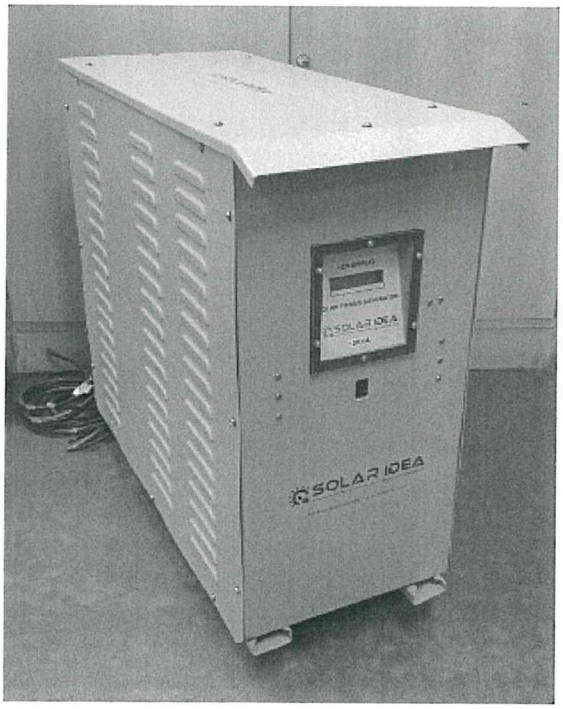
Efficiency Testing

Summary of testing:

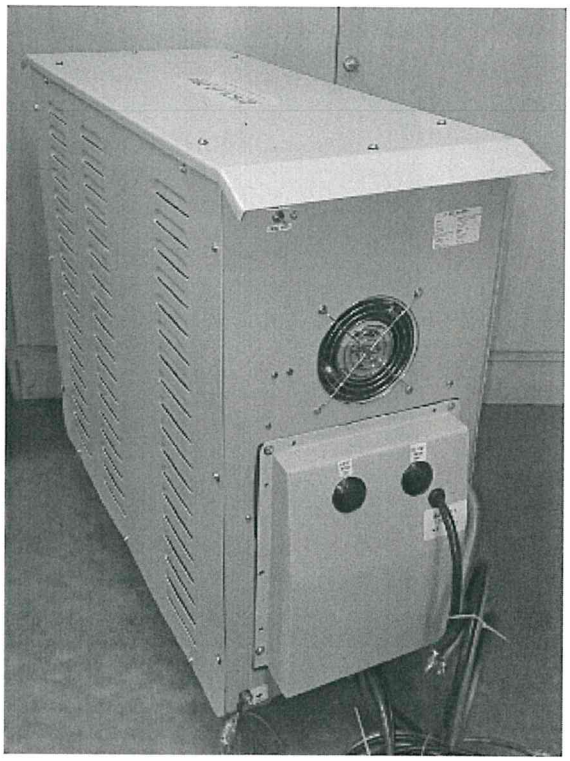
Table 1								
Model/Type		10kVA						
Sl. No.:		11608001931						
Load type:		Resistive load						
Load (%)		5	10	25	50	75	100	120*
Actual load (%)		5.04	10.02	25.03	50.12	75.05	100.42	_
DC Input Voltage (V)		120.22	120.03	120.13	120.35	120.33	120.52	_
DC Input Current (A)		6.18	10.56	23.99	47.43	71.70	96.20	_
DC Input Power (W)		742.96	1267.52	2881.92	5708.20	8627.66	11594.02	_
Output	Frequency(Hz)	50.10	50.10	50.10	50.10	50.10	50.11	_
	Voltage (V)	229.31	229.55	229.47	228.93	228.22	229.53	_
	Current (A)	2.20	4.36	10.9	21.89	32.88	43.74	_
	Power Factor	1.00	1.000	1.000	1.000	1.000	1.000	_
	THD (V in %)	4.41	4.56	4.52	3.99	3.18	2.42	_
	THD (I in %)	4.11	4.34	4.39	3.86	3.13	2.36	_
	Power (W)	503.90	1001.50	2503.00	5012.00	7505.00	10042.00	_
	Power (VA)	503.92	1001.50	2503.00	5012.00	7505.00	10042.00	_
Rated Output Efficiency (%)		67.82	79.01	86.85	87.80	86.99	86.61	_
Overall Efficiency (%) (25 -100% Load)		87.06						
No-Load loss		120.01V 1.78A= 213.62W						
Standby loss		119.97V 0.064A=7.67W						
Note: The above readings are taken at an ambient temperature of 25°C ± 2°C *120 % load was not performed due to over load cutoff protection provided in EUT.								

Efficiency Testing

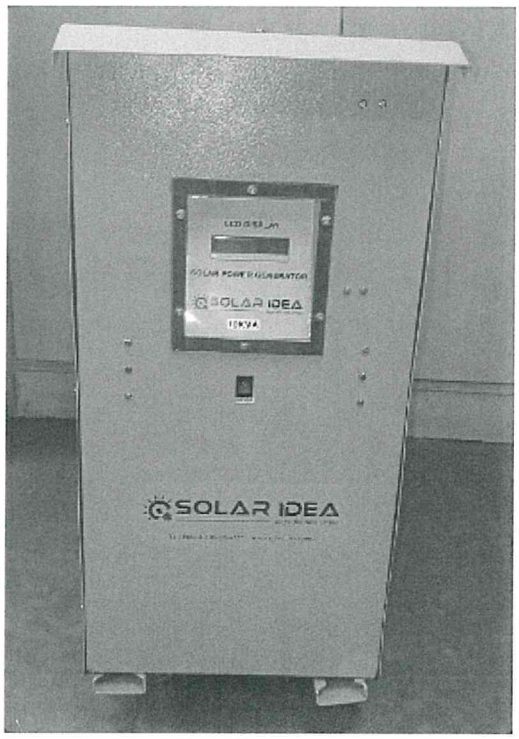
Attachment-1: Photo Document



Overall View



Efficiency Testing



Front View

Rear View

* End of Report *