



TC-5237



TEST REPORT

ENERTECH UPS PVT . LIMITED

REPORT NUMBER: TUV/PTL/20-21/REL/0035

JOB CARD NUMBER: TUV/20-21/REL/0037

JOB ORDER NUMBER: 8118824753

ULR NUMBER: TC523721000000030F

TESTING LABORATORY:

TUV INDIA PVT. LTD,
ANJANI PALLADIUM, 203 & 204,
SECOND FLOOR AND MEZZANINE
FLOOR, 104B, SURVEY NO.126/1,
BANER MAIN ROAD, BANER,
PUNE 411045, MAHARASHTRA,
INDIA.

TEL NO: +(91)20-67113116

WEBSITE: WWW.TUV-NORD.COM

SERVICE REQUESTED BY:

ENERTECH UPS PVT . LIMITED
S. NO. 399/1-2, BHAREGAON, P.O.
GHOTAWADE, DIST-PUNE 412115

REPORT ISSUED TO:

ENERTECH UPS PVT. LIMITED
S. NO. 399/1-2, BHAREGAON, P.O.
GHOTAWADE, DIST-PUNE 412115

This test report consists of 11 pages including cover letter



TC-5237






Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date **2 July 2021**

DISCIPLINE: ELECTRICAL
GROUP: ENVIRONMENTAL TEST FACILITY

Product details:

Test item:	SOLAR PCU (Sunmagic+)		
Make:	ENERTECH UPS PVT. LIMITED		
Model Number:	--		
Serial No.:	202102637		
Trademark:			
Sample ID:	TUV/PU210306-002		
Number of Samples	01		
Date of receipt:	06/03/2021		
Condition of EUT on receipt	Good		
Applicable Standard/ test specification/ regulations	IEC 60068-2-1: Tests- Test Ab: Cold Test IEC 60068-2-2: Tests- Test Bd: Dry Heat IEC 60068-2-14: Tests- Test Na: Change of temperature IEC 60068-2-30: Tests-Test Db: Damp heat, cyclic (12+12h cycle)		
Test Result:	The test item passed /failed the test specification(s).		
Declaration of Conformity:	Declaration of conformity of results is based on as per standard limits Or criteria.		
Other Aspects:	This test report relates to the test sample submitted		
Testing (Start date)	6 March 2021	End Date	11 March 2021
Laboratory Ambient Condition	Temperature in °C	25.2°C	
	Relative humidity in %	51%RH	
	Atmospheric pressure in Hpa (If applicable)	--	
Date of Reporting	2 July 2021		
Approved by / Authorized Signatory:		Issued by:	
			
Mr. Rupesh Dhule/ Sr. Test Engineer		Sneha Mandve/ Officer	
Date: 02/07/2021		Date: 02/07/2021	


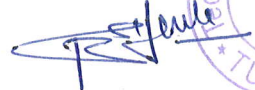


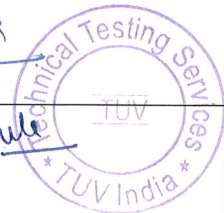
TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC52372100000030F

Issue Date **2 July 2021**

Product Ratings	RATING: 15 kW / 15 kVA, BATTERY DC: 240 VDC, AC INPUT: 360 - 460VAC, PV RANGE: 390 – 460 VDC, AC Output: 400 VAC, FREQ.: 50Hz	
Photographs Pages	Attachment 1: Graphs (Page 7- 10) Attachment 2: Photographs of Equipment under test(Page 11)	
Any other Document attached	N/A	
Test witnessed by (If any)	N/A	
<input checked="" type="checkbox"/> Testing Laboratory	TUV India Private Limited	
Testing location/ address :	TUV India Pvt. Ltd. ANJANI PALLADIUM, 203 & 204, SECOND FLOOR AND MEZZANINE FLOOR, 104B, SURVEY NO.126/1, BANER MAIN ROAD, BANER, PUNE 411045, MAHARASHTRA, INDIA	
Tested by (Name + Signature) :	Mr. Pravin Lute (Test Engineer)	
Approved by (Name + Signature) :	Mr. Rupesh Dhule (Sr. Test Engineer)	

**TUV India Private Limited has the following Accreditations/ Recognition:**

S.L No	Accreditation Bodies	Certificate Number
1	National Accreditation Board for Testing and Calibration Laboratories (NABL)	TC-5237
2	Bureau of Indian Standards (BIS)	OSL- 7139026
3	Telecommunication Engineering Center (TEC)	TEC/MRA/CAB/IND-D/51

Disclaimer

1. The Released Test Report/s relates ONLY to the specific sample/s submitted for testing and under the stated conditions
2. Any corrections/erasures invalidate the Test Reports. TUV India does not accept any liability whatsoever for the tampering or any unlawful or inadvertent alteration of documents that have been handed over to the Customer.
3. Any discrepancy in the Test report should be brought to the notice of TUV India within 1 (One) Month from the date of issue unless the query raised by regulatory or accreditation body.
4. Test Reports / Certificates or/and any associated attachments shall NOT be copied/reproduced, except IN FULL, without the prior written consent of TUV India.
5. All services rendered by TUV India will be treated as strictly Confidential.
6. TUV India will respond to clarifications requested by the Customer for a maximum period of 1 (One) Month from the date of receipt by the Customer. Samples will not be retained by TUV India after testing is completed or as applicable regulatory requirements
7. For any Complaints / Suggestions please email to: ksneha@tuv-nord.com



TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

Marking Label

PRODUCT :- SOLAR PCU (Sunmagic +)		QAF 1501-02
SR.NO:- 202102637	AC INPUT - 360- 460VAC	
RATING :- 15 KW / 15KVA	AC OUTPUT :- 400VAC	
BATTERY DC:- 240 VDC	FERQ. :- 50 Hz	
PV RANGE :- 290- 400VDC	DISP. DATE :- 26 - 02- 2021	
PRIORITY :-	INST. DATE :-	
	ENERTECH UPS PVT. LIMITED S.No. 399 / 1 2, BHAREGAON, P O GHOTAWADE, DIST PUNE 412 115 MOB.: 9373679255, 9372623418 Email: support@enertechups.com Web: www.enertechups.com	

Summary of Test Results

Test No.	Test Parameter	Standard & Clause Number	Result
1.	Cold test	IEC 60068-2-1:2007(Test Ab)	Pass
2.	Dry heat test	IEC 60068-2-2:2007(Test Bd)	Pass
3.	Change of temperature test	IEC 60068-2-14:2009(Test Na)	Pass
4.	Damp heat test	IEC 60068-2-30:2005(Test Db)	Pass

Reviewed by signature + Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

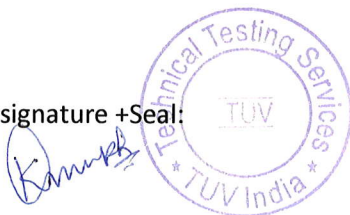
EQUIPMENT USED DURING THE TESTS

Serial No.	Test Equipment	Unique Equipment ID	Calibration Due Date
1.	Climatic Test chamber	TUV/PTL/SAFETY/301	1 August 2021
2.	Anemometer	TUV/PTL/SAFETY/347	29 July 2021

Test Requirement:

Sr. No	Test Type	Test Method	Standard	Test Specification	Test Duration
1	Cold Test	Cold Test	IEC 60068-2-1:2007 (Test Ab)	Ambient To -10°C within 35min. Temperature change rate: -1.0°C/min. -10°C Stable for 3 hrs -10°C to Ambient 35 min Temperature change rate: 1.0°C/min. Stability period at ambient 1 Hr No of cycle: 1 EUT Condition: OFF Refer Graph: Cold Test (Page. 7)	5 hrs 10 min
2	Dry Heat test	Dry Heat	IEC 60068-2-2:2007 (Test Bd)	Ambient To +55°C within 30min Temperature change rate: 1.0°C/min +55°C Stable for 17hrs +55° to Ambient within 30 min Temperature change rate: -1.0°C/min Stability period at ambient 1 Hr No. of cycle: 1 EUT Condition: OFF Refer Graph: Dry Heat Test (Page. 8)	19 hrs

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

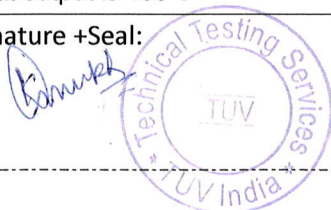
Issue Date 2 July 2021

3	Change of Temperature Test	Thermal Cyclic Test	IEC 60068-2-14:2009 (Test Na)	Ambient stable for 3 min Ambient to -10°C within 18 min Temperature change rate: -1.94°C/min -10°C Stable for 3 hrs -10°C to ambient immediately Ambient to +55°C within 18 min Temperature change rate: 1.94°C/min +55°C Stable for 3 hrs +55°C to Ambient immediately Ambient stable for 3 min Stability period at ambient 1 Hr EUT Condition: OFF No. of Cycle:3 Refer Graph: Change of Temperature Test (Page. 9)	21 hrs
4	Damp Heat Test	Damp Heat	IEC 60068-2-30:2005 (Test Db)	Ambient to 55°C within 30 min. Temperature change rate: 1°C/min Maintain temperature for 11 hr 30 min. Humidity not less than 96%RH Lower the temperature to 25°C within 4 hr. Temperature change rate: -0.125°C/min Maintain temperature at 25°C for 8hr No of Cycle:-3 Exposure period: 72 Hr Stability period at ambient 1 Hr EUT Condition: OFF Refer Graph: Damp Heat Test (Page. 10)	73 hrs

Functional test:

Before test	After Test
EUT is ON continuously after pressing start button	EUT is ON continuously after pressing start button
Display ON after powered ON	Display ON after powered ON
Measure voltage at output is 400 V	Measure voltage at output is 400 V

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

Attachment 1: Graphs

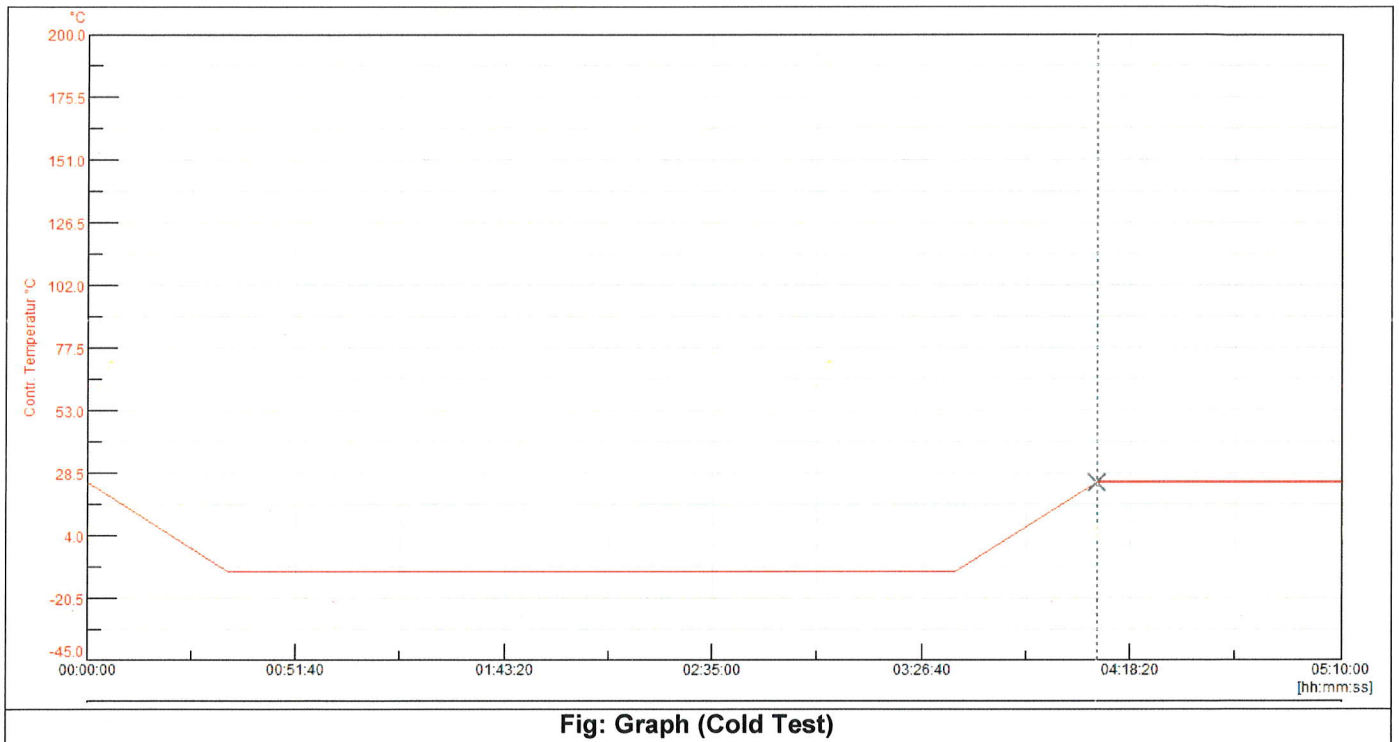


Fig: Graph (Cold Test)

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date **2 July 2021**

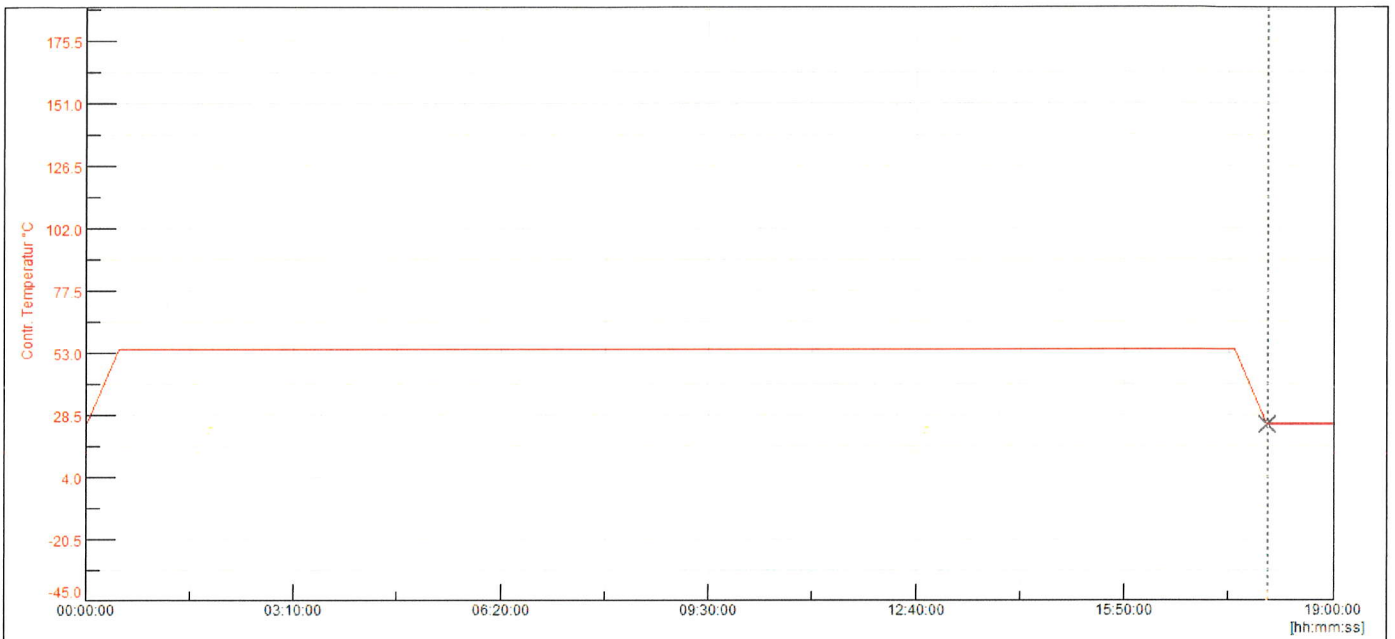


Fig. Graph (Dry Heat test)

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

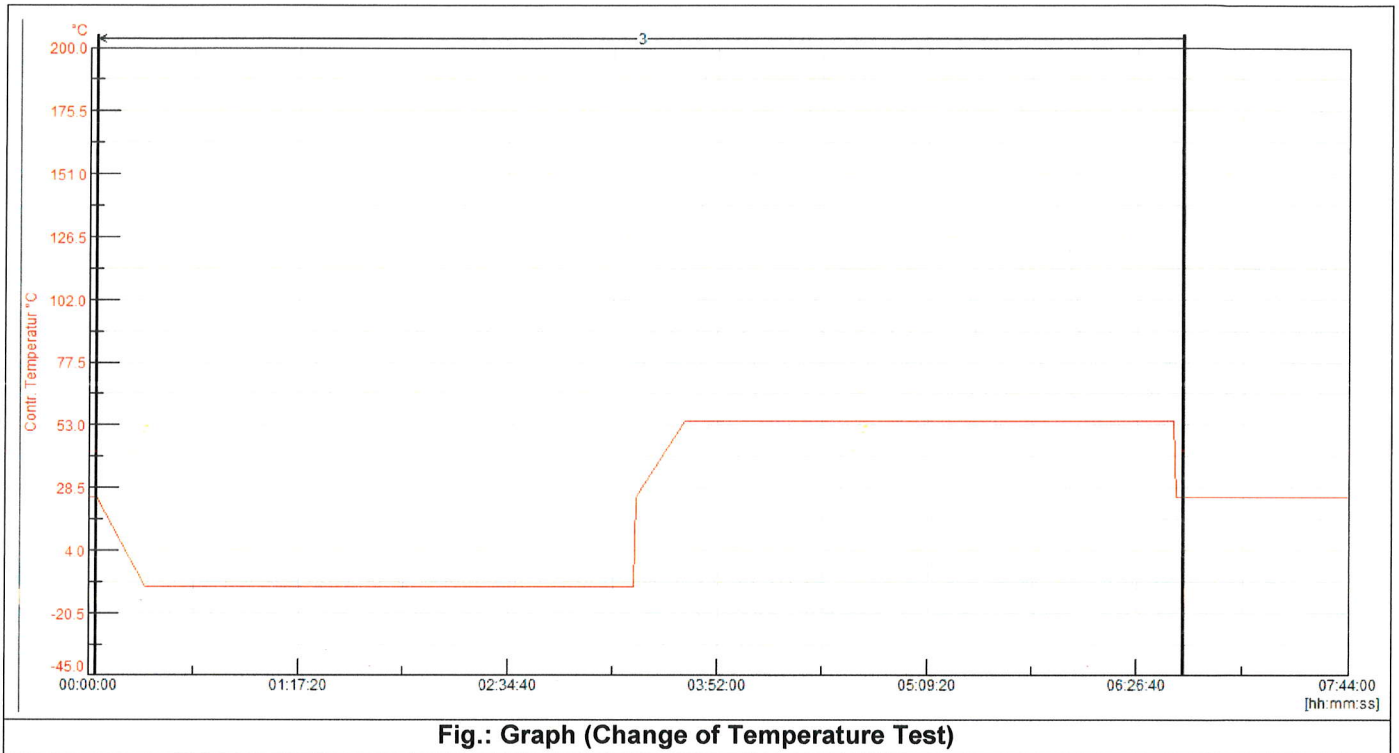


Fig.: Graph (Change of Temperature Test)

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

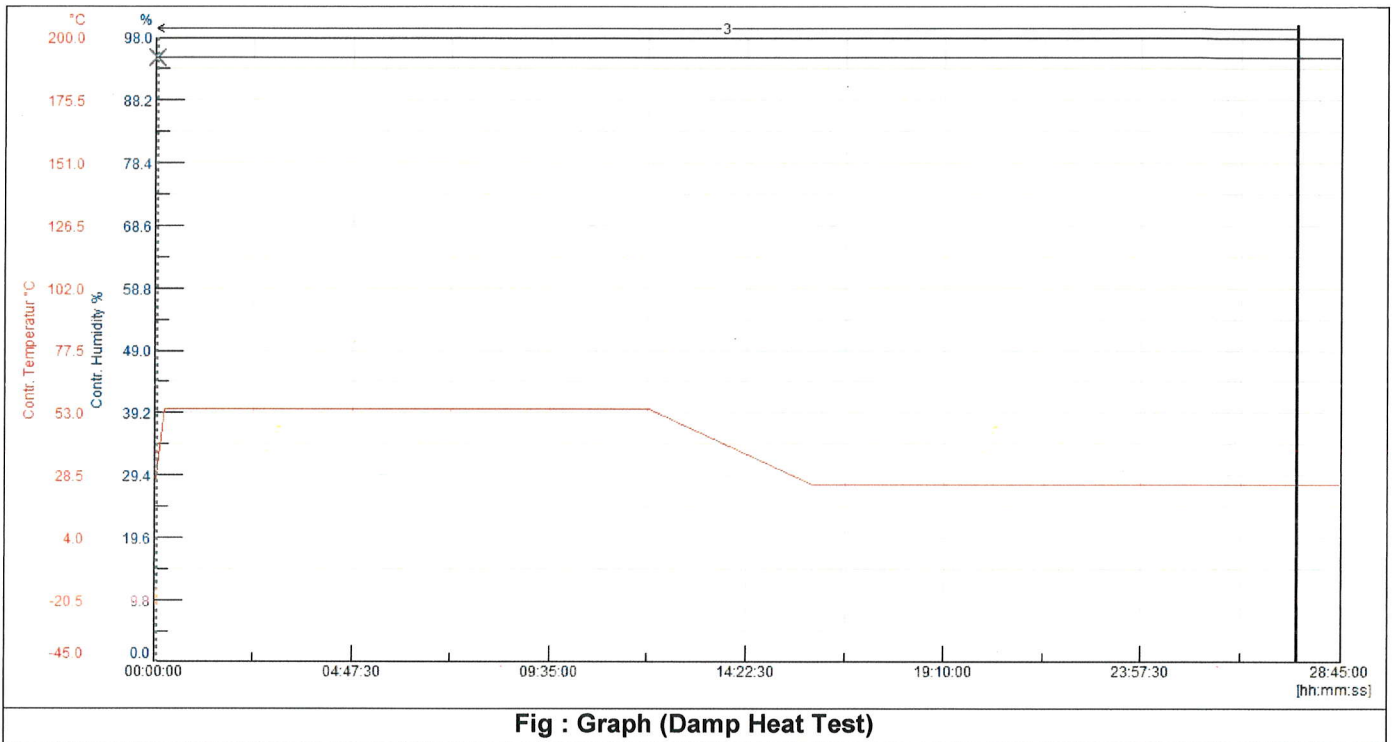
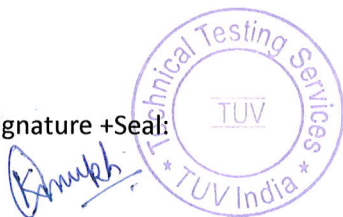


Fig : Graph (Damp Heat Test)

Reviewed by signature +Seal:





TC-5237



Report No: TUV/PTL/20-21/REL/0035
ULR Number: TC523721000000030F

Issue Date 2 July 2021

Attachment 2:

Photographs: Equipment under Test



Fig.1 Front view



Fig.2 : Rear View of EUT

*****End of Report*****

Reviewed by signature +Seal:

