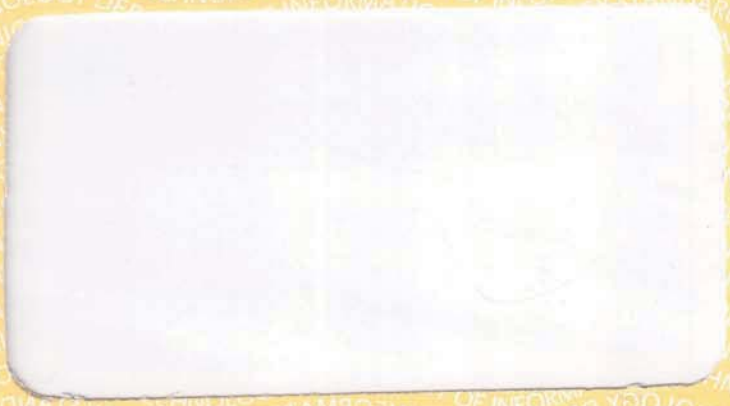
सत्यमेव जयते

TEST REPORT



STQC
TESTING

Government of India
Ministry of Communications and Information Technology
Department of Information Technology
Standardisation Testing and Quality Certification Directorate
ELECTRONICS REGIONAL TEST LABORATORY (EAST)
Block DN, Sector V, Salt Lake, Kolkata 700 091
INDIA

TEST REPORT ON SOLAR INVERTER

1.0 SCOPE

1.1 Service Request No. : TE/0061/03-13

1.2 Test Report No. : ERTL(E)/TES/P308/0030/03-13
Date : 09/04/2013

1.3 Requested by (Name & Address of the organisation) :
PPS ENVIRO POWER PVT. LTD.
D97-A,PHASE-1,ROAD-18
IDA, JEEDIMETIA
HYDERABAD 500055

1.4 Description , Identification of the item to be tested

Item	:	SOLAR INVERTER
Make	:	PPS ENVIRO POWER P.LTD
Model	:	PV-UP-P SERIES
Sl.No.	:	0026
Qty.	:	1

1.4.1 Applicable Spec.of the item(s) tested:

1.2 Kw

1.4.2 Characterisation and condition of the item

Characterisation	:	Not applicable /
Condition	:	Satisfactory /

1.5 Date of item receipt of item : 19/03/2013

1.6 Date of start of testing : 21/03/2013

1.6.1 Date of completion of testing : 08/04/2013

1.7 Location where testing performed : In house

1.8 Ambient condition during measurement : 25 +/- 1.5°C
70% RH. Max.

1.9 Spec. used for testing : IEC:61683

1.9.1 Details of non-standard method followed (if any) : NIL

TEST REPORT NO.: ERTL(E) / TES / P308 / 0030 / 03 - 13
TEST REPORT ON SOLAR INVERTER
AS PER IEC: 61683
MAKE: PPS ENVIRO POWER P. LTD, MODEL: PV-UP-P SERIES, CAPACITY: 1.2 KW, SL. NO.: 026

TEST RESULT:

TEST NO.	TEST / ENVIRONMENT	CL. NO.	QUANTITY		SPECIFICATION LIMITS	TEST RESULTS	MEASUREMENT UNCERTAINTY
			TESTE	FAILE			
1.0	**Output Voltage:-** (At 100% Resistive Load)	4.3	1	-	Not Specified.	228.91 Vac	± 0.264 Vac
2.0	**Output Freqency:-** (At 100% Resistive Load)	4.3	1	-	Not Specified.	50.41 Hz.	± 0.058 Hz.
3.0	**Ripple & Distortion:-**	4.5					
3.1	THD_v at 100% Resistive Load		1	-	Not Specified.	0.4 %	± 0.008 %
3.2	THD_i at 100% Resistive Load		1	-	Not Specified.	1.2 %	± 0.008 %
4.0	**Loss Measurement:-**	7.0					
4.1	**No Load Loss:-**		1	-	Not Specified.	9.68 W.	± 0.058 W.
4.2	**Standby Loss:-**		1	-	Not Specified.	9.60 W.	± 0.058 W.
5.0	**Efficiency Test:-**	IEC					
5.1	**For unity power factor.:-**	61683					
5.1.1	At 5% of load ie. 60 W (Actualy Tested at 69.62 W)	Table1	1	-	Not specified.	77.54 %	± 0.161 W.
5.1.2	At 10% of load ie. 120 W (Actualy Tested at 119.86 W)		1	-	Not specified.	80.36 %	± 0.277 W.
5.1.3	At 25% of load ie. 300 W (Actualy Tested at 300.99 W)		1	-	Not specified.	84.02 %	± 0.695 W.
5.1.4	At 50% of load ie.600 W (Actualy Tested at 599.10 W)		1	-	Not specified.	83.39 %	± 1.384 W.
5.1.5	At 75% of load ie. 900 W (Actualy Tested at 902.60 W)		1	-	Not specified.	85.92 %	± 2.084 W.
5.1.6	At 100% of load ie. 1200 W (Actualy Tested at 1190 W)		1	-	Not specified.	87.69 %	± 2.75 W.

Notes: Measurement Uncertainty at 95% Confidance Level.

(Mita. Das.)
Addl. Director

TEST REPORT NO.: ERTL(E) / TES / P308 / 0030 / 03 - 13
TEST REPORT ON SOLAR INVERTER
AS PER IEC: 61683
MAKE: PPS ENVIRO POWER P. LTD, MODEL: PV-UP-P SERIES, CAPACITY: 1.2 KW, SL. NO.: 026

TEST RESULT:

TEST NO.	TEST / ENVIRONMENT	CL. NO.	QUANTITY		SPECIFICATION LIMITS	TEST RESULTS	MEASUREMENT UNCERTAINTY
			TESTE	FAILE			
5.2	**For 0.25 power factor.:-**	- do -					
5.2.1	At 25% of load ie. 75 W (Actualy Tested at 74.22 W)		1	-	Not specified.	78.79 %	± 0.17 W.
5.2.2	At 50% of load ie. 150 W (Actualy Tested at 151.49 W)		1	-	Not specified.	79.34 %	± 0.35 W.
5.2.3	At 100% of load ie. 300 W (Actualy Tested at 298.70 W)		1	-	Not specified.	86.65 %	± 0.69 W.
5.3	**For 0.50 power factor.:-**	- do -					
5.3.1	At 25% of load ie. 150 W (Actualy Tested at 160.22 W)		1	-	Not specified.	78.76 %	± 0.37 W.
5.3.2	At 50% of load ie. 300 W (Actualy Tested at 304.8 W)		1	-	Not specified.	80.25 %	± 0.70 W.
5.3.3	At 100% of load ie. 600 W (Actualy Tested at 590.8 W)		1	-	Not specified.	83.77 %	± 1.36 W.
5.4	**For 0.75 power factor.:-**	- do -					
5.4.1	At 5% of load ie. 225 W (Actualy Tested at 230.21 W)		1	-	Not specified.	81.81 %	± 0.53 W.
5.4.2	At 50% of load ie. 450 W (Actualy Tested at 448.8 W)		1	-	Not specified.	80.55 %	± 1.04 W.
5.4.3	At 100% of load ie. 900 W (Actualy Tested at 895.7 W)		1	-	Not specified.	84.02 %	± 2.07 W.
5.5	**For 80% THDi with 0.5 pf.:-**	- do -					
5.5.1	At 50% of load ie. 300 W (Actualy Tested at 302.52 W)		1	-	Not specified.	80.10 %	± 0.70 W.
5.5.2	At 100% of load ie. 600 W (Actualy Tested at 596.06 W)		1	-	Not specified.	83.80 %	± 1.38 W.
5.6	**Over Load Test** At 120% of load ie. 1440 W for 30 secs.		1	-	Not specified.	Complied	

*Note:- The tested Inverter is **1.2 KW** as declared by the customer, so Full Load Power is **1.2 KW** at unity **pf**.*

(Mita. Das.)
Addl. Director

Notes: Measurement Uncertainty at 95% Confidance Level.

TEST REPORT ON : SOLAR INVERTER

Test Report No. : ERTL(E)/TES/P308/0030/03-13
Date : 09/04/2013

3.0 Equipment used

EQPT_NO	NAME	MAKE	MODEL	CAL. VALID UPTO
0971	POWER QUALITY ANALYZER	FLUKE	43B	03/09/2013
1018	MULTIMETER	AGILENT TECHNOLO	34401A	13/09/2013
1246	DIGITAL POWER METER	YOKOGAWA	WT 230	07/02/2014
1341	TRUE RMS DMM WITH SOFTWARE	RISHABH	RISHMULTI 18S	11/02/2014

Note:All tests were conducted within the validity period of respective equipment shown above.

4.0 Remarks (if any)

NIL

RELEASED BY
(signature & date)

9.4.13

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