



CALIBRATION CERTIFICATE

Job No.: PI210108-14 Calibration Date: 08/01/2021 Issue Date.: 11/01/2021 Page No.: I of 2
Receipt Date: 08/01/2021 Due Date.: 07/01/2022 Certificate No.: PI210108-14-01

1. CALIBRATION FOR:

PLANETRIC POWER LLP

Calibration : Lab
Location

MNO 3067 (Near Family Super Market), Pune-Nagar Road,

Cond. On Receipt : Satisfactory

A/P Wagholi Tal-Haveli Pune Maharashtra

India 412207

2. DETAILS OF UNIT UNDER CALIBRATION (UUC):

NAME : Micro Ohm Meter

RANGE : Selectable

MAKE : TESTRONIX

RESOLUTION : Selectable

MODEL : 53-C

ULR NO. : ULR-CC250321000000208F

SR. No. : 171161

TYPE : Digital

3. DETAILS OF STANDARD INSTRUMENTS USED FOR CALIBRATION (TRACEABILITY)

NAME	ID. NO.	CALIBRATED BY	CERTIFICATE NO.	VALID UPTO
Digital Multimeter	PI/58	CC-2503	PI200303-1-8	02/03/2021
Multi-Product Calibrator	PI/97	CC-2503	PI190915-4-1	14/09/2021

4. WORK INSTRUCTION NO.: CP-T/20 REFERENCE STANDARD NO.: NA

5. ENVIRONMENTAL DETAILS:

Temperature: $25 \pm 4^\circ\text{C}$


Relative Humidity: 30 to 75 %RH

6. CALIBRATION RESULTS: Discipline: Group :- Electro-Technical : Resistance

Sr. No.	Range	Input Voltage on Master	Output Current on Master	Calculated Avg Reading of Master	Reading on UUC	Error	Expanded Uncertainty (Ue)	Coverage Factor
1	1999 $\mu\Omega$	212.077 mV	0.991 A	214.003 $\mu\Omega$	214	-0.0030 $\mu\Omega$	$\pm 0.0090 \mu\Omega$	2
2		1912.67 mV	0.991 A	1930.040 $\mu\Omega$	1930	-0.040 $\mu\Omega$	$\pm 1.67 \mu\Omega$	2
3	19.99 m Ω	1.9895 mV	0.990 A	2.0096 m Ω	2.01	0.00040 m Ω	$\pm 0.0061 \text{ m}\Omega$	2
4		19.5620 mV	0.990 A	19.7596 m Ω	19.76	0.00040 m Ω	$\pm 0.017 \text{ m}\Omega$	2
5	199.9 m Ω	18.3661 mV	0.937 A	19.6010 m Ω	19.6	-0.00100 m Ω	$\pm 0.060 \text{ m}\Omega$	2
6		176.8239 mV	0.942 A	187.7111 m Ω	187.7	-0.011 m Ω	$\pm 0.0076 \text{ m}\Omega$	2
7	1999 m Ω	187.703 mV	0.100 A	1877.030 m Ω	1877	-0.030 m Ω	$\pm 1.24 \text{ m}\Omega$	2
8	19.99 Ω	188.42 mV	10.04 mA	18.77 Ω	18.77	0.00 Ω	$\pm 0.0091 \Omega$	2
9	199.9 Ω	187.706 mV	1.00 mA	187.706 Ω	187.7	-0.0060 Ω	$\pm 0.13 \Omega$	2
10	1999 Ω	189.0351 mV	100.7 μA	1877.2105 Ω	1877	-0.21 Ω	$\pm 1.34 \Omega$	2
11	19.99 k Ω	187.719 mV	10.0 μA	18.772 Ω	18.77	-0.0020 Ω	$\pm 0.017 \Omega$	2


Suraj Chavan
calibrated By




S.E. Shinde R.B. Kasar
Approved By
F: CP-T/20

Job No.: PI210108-14	Calibration Date: 08/01/2021	Issue Date.: 11/01/2021	Page No.:2 of 2
Receipt Date: 08/01/2021	Due Date.:07/01/2022	Certificate No.: PI210108-14-01	

7. REMARKS:

1. UUC Stands for Unit Under Calibration.
2. A sticker indicating "CALIBRATION STATUS" has been affixed on the UUC.
3. The standards used for calibration were calibrated by using reference standard traceable to National/International standard.
4. Calibration points were selected as per customer's specifications.
5. The Calibration results reported in this certificate are related to this item only and valid at the time of and under stated condition of the measurement.
6. The certificate should not be reproduced expect in full without the prior permission of Laboratory.
7. The reported expanded uncertainty of measurement is calculated at approximately 95.45% of confidence level

Suraj Chavan
calibrated By



----- End of Certificate -----

S.E. Shinde R.B. Kasar
Approved By
F: CP-1/20



CALIBRATION CERTIFICATE

Job No.: PI210108-14	Calibration Date: 08/01/2021	Issue Date.: 11/01/2021	Page No.:1 of 4
Receipt Date: 08/01/2021	Due Date.: 07/01/2022	Certificate No.: PI210108-14-02	

1.CALIBRATION FOR:

PLANETRIC POWER LLP

MNO 3067 (Near Family Super Market), Pune-Nagar Road,
A/P Wagholi Tal-Haveli Pune Maharashtra
India 412207

Calibration Location : Lab
Cond. On Receipt : Satisfactory

2.DETAILS OF UNIT UNDER CALIBRATION (UUC):

NAME	: Automatic Instrument Transformer Test Set	RANGE	: 1A, 5 A & 110 V
MAKE	: Eltel		: 63.5 V AC @ 50 Hz
MODEL	: AITTS PLUS	ULR NO	: ULR-CC250321000000209F
Sr. No.	: 20188615		

3. DETAILS OF STANDARD INSTRUMENTS USED FOR CALIBRATION (TRACEABILITY)

NAME	ID. NO.	CERTIFICATE NO.	CALIBRATED BY	VALID UPTO
Automatic Instrument Transformer Test Set	PI/101	CC/ECL/1784/18-19	CC-2287	08/01/2021

4. WORK INSTRUCTION NO.: CP-T/28 REFERENCE STANDARD IS 2705 (PART 2): 1992

5. ENVIRONMENTAL DETAILS:

Temperature: 25 ± 4 °C

Relative Humidity: 30 to 60 %RH

6. CALIBRATION RESULTS: 1) 1 A CT Test @ 50 Hz (Class -0.1) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	1A / 1A	120 %	-0.0300	1.02	-0.041	1.05
2		100 %	-0.0312	1.06	-0.042	1.06
3		20 %	-0.0345	1.22	-0.053	1.33
4		5 %	-0.0150	3.14	-0.019	3.90
5		1 %	-0.114	5.11	-0.125	5.27


2) 1 A CT Test @ 50 Hz (Class -0.5) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	1A / 1A	120 %	-0.137	5.12	-0.141	5.1
2		100 %	-0.138	5.23	-0.142	5.0
3		20 %	-0.200	10.24	-0.211	11.1
4		5 %	-0.327	15.12	-0.340	16.0
5		1 %	-0.610	30.15	-0.612	31.0

UUC: Unit Under Calibration


Suraj Chavan
Calibrated By




S.E. Shinde / R.B. Kasar
Approved By
F: CP-T/28



Job No.: PI210108-14 Calibration Date: 08/01/2021 Issue Date.: 11/01/2021 Page No.:2 of 4
Receipt Date: 08/01/2021 Due Date.: 07/01/2022 Certificate No.: PI210108-14-02

CALIBRATION RESULTS: 3) 1 A CT Test @ 50 Hz (Class 1.0) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	1 A / 1A	120 %	-0.600	8.96	-0.612	9.1
2		100 %	-0.605	8.97	-0.623	10.0
3		20 %	-0.589	10.22	-0.559	11.3
4		5 %	-0.331	34.80	-0.340	35.1
5		1 %	-0.145	50.30	-0.191	52.4

1) 5 A CT Test @ 50 Hz (Class 0.1) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	5 A / 5A	120 %	-0.0550	3.12	-0.0600	3.25
2		100 %	-0.0590	3.15	-0.0623	3.24
3		20 %	-0.0804	7.15	-0.0945	7.50
4		5 %	-0.105	10.40	-0.113	10.53
5		1 %	-0.236	16.45	-0.298	16.90

2) 5 A CT Test @ 50 Hz (Class 0.5) Discipline:Group :- Electro-Technical: Electrical Equipment


SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	5 A / 5A	120 %	-0.400	11.23	-0.441	11.27
2		100 %	-0.414	11.25	-0.445	11.25
3		20 %	-0.550	15.35	-0.581	15.99
4		5 %	-1.026	20.89	-1.090	21.00
5		1 %	-1.059	30.25	-1.101	30.98

3) 5 A CT Test @ 50 Hz (Class 1.0) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Current % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	5 A / 5A	120 %	-0.745	19.32	-0.798	20.88
2		100 %	-0.819	19.76	-0.789	20.57
3		20 %	-1.045	25.38	-1.101	26.24
4		5 %	-1.025	36.95	-1.155	36.88
5		1 %	-2.017	77.52	-2.101	78.90


Suraj Chavan
Calibrated By




S.E. Shinde / R.B. Kasar
Approved By
F: CP-T/28



CC-2503

Job No.: PI210108-14 Calibration Date: 08/01/2021 Issue Date.: 11/01/2021 Page No.:3 of 4
Receipt Date: 08/01/2021 Due Date.: 07/01/2022 Certificate No.: PI210108-14-02

1) 110V / 110V PT Test @ 50 Hz (Class 0.1) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	110 V /110V	120 %	-0.0130	-0.08	-0.015	-0.19
2		100 %	-0.0131	-0.11	-0.016	-0.15
3		80 %	-0.0140	-0.16	-0.014	-0.18

2) 110V / 110V PT Test @ 50 Hz (Class 0.5) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	110 V /110V	120 %	0.200	-1.50	0.199	-1.71
2		100 %	0.200	-1.60	0.197	-1.73
3		80 %	0.198	-1.77	0.202	-1.79

3) 110V / 110V PT Test @ 50 Hz (Class 1.0) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	110 V /110V	120 %	-0.590	-4.05	-0.597	-4.12
2		100 %	-0.592	-3.92	-0.598	-4.11
3		80 %	-0.595	-4.99	-0.599	-5.02

1) 63.5V / 63.5V PT Test @ 50 Hz (Class 0.1) Discipline:Group :- Electro-Technical: Electrical Equipment


SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	63.5 V /63.5V	120 %	-0.0150	-0.59	-0.0147	-0.88
2		100 %	-0.0152	-0.60	-0.0146	-0.83
3		80 %	-0.0170	-0.65	-0.0148	-0.77

2) 63.5V / 63.5V PT Test @ 50 Hz (Class 0.5) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	63.5 V /63.5V	120 %	-0.199	-1.90	0.196	-1.87
2		100 %	-0.195	-1.94	0.198	-1.86
3		80 %	-0.197	-1.80	0.199	-1.94


Suraj Chavan
Calibrated By




S.E. Shinde / R.B. Kasar
Approved By
F: CP-T/28

Job No.: PI210108-14 Calibration Date: 08/01/2021 Issue Date.: 11/01/2021 Page No.:3 of 4
Receipt Date: 08/01/2021 Due Date.: 07/01/2022 Certificate No.: PI210108-14-02

3) 63.5V / 63.5V PT Test @ 50 Hz (Class 1.0) Discipline:Group :- Electro-Technical: Electrical Equipment

SR. NO.	Nominal Ratio	Rated Primary Voltage % of FSD	Master Reading		UUC Reading	
			RE (%)	PE (min)	RE (%)	PE (min)
1	63.5 V /63.5V	120 %	-0.590	-3.89	-0.593	-4.10
2		100 %	-0.592	-3.85	-0.594	-4.11
3		80 %	-0.601	-3.95	-0.603	-4.23


7. REMARKS:

1. A sticker indicating "CALIBRATION STATUS" has been affixed on the UUC.
2. The standards used for calibration were calibrated by using reference standard traceable to National/International standard.
3. Expanded Uncertainty for class 0.1 to 0.5 **RE = ± 0.008 % & PE = ± 0.5 min & class 1.0 **RE = ± 0.011 % & PE = ± 0.5 min** calculated at 95.45 % of confidence level where coverage factor k = 2.**
4. Calibration points were selected as per customer's specifications.
5. The Calibration results reported in this certificate are related to this item only and valid at the time of and under stated condition of the measurement


Suraj Chavan
Calibrated By



----- End of Certificate -----


S.E. Shinde / R.B. Kasar
Approved By
F: CP-T/28



CC-2503

18, 19, 22, 24, Rachana Industrial Complex, Plot No. 71/1B/14, Telco Road, Indrayani Corner,
General Block, MIDC, Bhosari, Pune -411026. Mob. : 8975896690,
Mail : pims.pune@gmail.com, info@prajyo.com, Web : www.prajyo.com
Calibration of : Electro - Technical, Mechanical, Thermal, Mass, Torque, Power, HV, CT/ PT

CALIBRATION CERTIFICATE

Job No.:PI210108-14 Calibration Date:08/01/2021 Issue Date.:11/01/2021 Page No.:1 of 1
Receipt Date:08/01/2021 Due Date.:07/01/2022 Certificate No.:PI210108-14-3

1. CALIBRATED FOR

PLANETRIC POWER LLP

MNO 3067 (Near Family Super Market), Pune-Nagar Road, A/P
Wagholi Tal-Haveli Pune Maharashtra India 412207

Calibration Location

:Lab

Cond. On Receipt

: Satisfactory

2. DETAILS OF UNIT UNDER CALIBRATION (UUC):

Nomenclature : HV Tester

Range

: 0 to 2.5 kV / 0 to 5 kV AC

Make : A E

ULR NO : ULR-CC250321000000210F

Resolution/Least Count

: 0.01 kV

Serial No. : 08/17/205083/1

Type

: Digital

3. DETAILS OF STANDARD INSTRUMENTS USED FOR CALIBRATION (TRACEABILITY)

NAME	ID. NO.	CERTIFICATE NO.	CALIBRATED BY	VALID UPTO
Digital Multimeter	PI/58	PI200303-1-8	CC-2503	02/03/2021
H V Divider with KV Meter	PI/99	CC/ECL/1782/18-19	CC-2287	25/12/2021

4. WORK INSTRUCTION NO.: CP-T/26

REFERENCE STANDARD NO.: NA

5. ENVIRONMENTAL DETAILS:

Temperature: 25 ± 4 °C

Relative Humidity: 50 ± 20 %RH

6. CALIBRATION RESULTS:

CALIBRATION RESULTS: AC Voltage @ 50 Hz : Range : 0 to 2.5 /0.01 KV AC Discipline:Group :- Electro-Technical : Alternative Voltage

Sr. No.	Set Value on UUC	Average Reading on STD	Error	Expanded Uncertainty (%)	Coverage Factor (k)
	kV	kV	kV	% Rdg	
1	0.50	0.50	0.00	± 2.417	2
2	1.00	1.01	-0.01	± 2.404	2
3	1.50	1.52	-0.02	± 2.418	2
4	2.00	2.03	-0.03	± 2.420	2
5	2.50	2.47	0.03	± 2.428	2

CALIBRATION RESULTS: AC Voltage @ 50 Hz : Range : 0 to 5 /0.01 KV AC Discipline:Group :- Electro-Technical : Alternative Voltage

Sr. No.	Set Value on UUC	Average Reading on STD	Error	Expanded Uncertainty (%)	Coverage Factor (k)
	kV	kV	kV	% Rdg	
1	1.00	1.02	-0.02	± 2.410	2
2	2.00	2.01	-0.01	± 2.414	2
3	3.00	3.04	-0.04	± 2.435	2
4	4.00	4.02	-0.02	± 2.421	2
5	5.00	5.05	-0.05	± 2.437	2

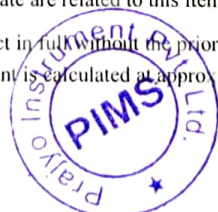
7. REMARK

1. UUC Stands for Unit Under Calibration.
2. A sticker indicating "CALIBRATION STATUS" has been affixed on the UUC.
3. The standards used for calibration were calibrated by using reference standard traceable to National/International standard.
4. Calibration points were selected as per customer's specifications.
5. The Calibration results reported in this certificate are related to this item only and valid at the time of and under stated condition of the measurement.
6. The certificate should not be reproduced except in full without the prior permission of Laboratory.

The reported expanded uncertainty of measurement is calculated at approximately 95.45% of confidence level

Suraj Chavan

Calibrated By



S.E.Shinde / D.S.Deshpande / R.B.Kasar

Approved By

F:CP-T/2

----- End of Certificate -----