



# PRECISION INSTRUMENTATION AND SERVICES PVT. LTD.

◆ Instrument Calibration ◆ ANU Validation ◆ Thermal Validation ◆ PLC Validation

21, Shreeram Bhavan, F-9, Shreeramkunj, Takli Road, Dwarka, Nashik - 422 011. Tel.: 0253 - 6145100

M. : 09860102524 • Web site : www.pisnashik.com • E-mail : customercare@pisnashik.com

## CALIBRATION CERTIFICATE

<b>1.CUSTOMER</b> :-	Page No.	:- 1 of 1
<b>Bush Electromech and Engineering Pvt. Ltd.</b>	Date of Receipt	:- 6-Oct-22
K-89, MIDC, Waluj, Aurangabad 431 136.	Service Request No.	:- A2022/22
Ambient Temp. :- 24.5 °C	Certificate No.	:- A2022/10/065
Relative Humidity :- 52 % RH	Date of Calibration	:- 6-Oct-22
Location of calibration :- On Site	Next Calibration Due On	:- 6-Oct-23
Condition of Item :- OK	Calibration method No.	:- PISPL/ET/WI/03

### 2. Details of unit under Calibration (UUC):-

Name :- AC High Voltage Tester	Range	:- 0 to 5 KVAC
I.D No. :- 101101	Resolution	:- ---
Make :- Agronics	Specified Accuracy	:- $\pm 2\%$
	Location	:- ---

### 3.Details of Equipment Used for Calibration

Name :- High Voltage Probe	Digital Multimeter
Make/I.D No. :- Fluke/ PIS/HV/01	CIE/PISPL/ABAD/DMM/02
Certificate No. :- TSC/20-21/13518-2	E2020/12/298
Certified By :- Transcal	PISPL
Calibration Validity :- 18-Mar-22	21-Dec-21

### 4. Calibration Results :-

Calibration Points KVAC	UUC Reading KVAC	Standard Reading KVAC	Error in KVAC	Error in %
1	1	0.996	0.004	0.40
2	2	1.994	0.006	0.30
3	3	2.953	0.047	1.57
4	4	3.981	0.019	0.48
5	5	4.977	0.023	0.46

**5.Accuracy in Measurement** :-  $\pm 1.57\%$

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

#### Note:

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- 4) The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.

Calibrated By  
Rahul  
Calibration Engineer  
Mr.Rahul Pawar



Approved By  
cew  
Technical Manager  
Mrs.Vinita Ghogare

PF-31/0



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## CALIBRATION CERTIFICATE

<b>1.CUSTOMER</b> :- <b>Bush Electromech and Engineering Pvt. Ltd.</b> K-89, MIDC, Waluj, Aurangabad 431 136. Ambient Temp. :- 24.2 °C Relative Humidity :- 52 % RH Location of calibration :- On Site Condition of Item :- OK	Page No. :- 1 of 1 Date of Receipt :- 6-Oct-22 Service Request No. :- A2022/22 Certificate No. :- A2022/10/066 Date of Calibration :- 6-Oct-22 Next Calibration Due On :- 6-Oct-23 Calibration method No. :- PISPL/ET/WI/03
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### 2. Details of unit under Calibration (UUC):-

Name :- AC High Voltage Tester	Range :- 0 to 50 KVAC
I.D No. :- 8637/174(P)/09-10	Resolution :- 2 KVAC
Make :- Rectifier & Electronics	Specified Accuracy :- $\pm 2\%$
Location :-	Location :-

### 3.Details of Equipment Used for Calibration

Name :- High Voltage Probe	Digital Multimeter
Make/I.D No. :- Fluke/ PIS/HV/01	Rish/PIS/DMM/02
Certificate No. :- TSC/21-22/18060-1	TSC/21-22/18060-1
Certified By :- Transcal	Transcal
Calibration Validity :- 14-Mar-23	14-Mar-23

### 4.Calibration Results :-

Calibration Points KVAC	UUC Reading KVAC	Standard Reading KVAC	Error in KVAC	Error in %
5	5	4.995	0.005	0.10
10	10	9.982	0.018	0.18
15	15	14.977	0.023	0.15
20	20	19.966	0.034	0.17
28	28	27.962	0.038	0.14

5.Accuracy in Measurement :-  $\pm 0.18\%$

6.Remark :- The Unit Under Calibration Found to Perform Satisfactorily.

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Calibration Engineer  
Mr.Rahul Pawar



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Vinita  
Technical Manager  
Mrs.Vinita Ghogare

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## CALIBRATION CERTIFICATE

<b>1.CUSTOMER</b> :- Bush Electromech and Engineering Pvt. Ltd. K-89, MIDC, Waluj, Aurangabad 431 136.	Page No. :- 1 of 1
Ambient Temp. :- 24.2 °C	Date of Receipt :- 6-Oct-22
Relative Humidity :- 52 % RH	Service Request No. :- A2022/22
Location of calibration :- On Site	Certificate No. :- A2022/10/067
Condition of Item :- OK	Date of Calibration :- 6-Oct-22
	Next Calibration Due On :- 6-Oct-23
	Calibration method No. :- PISPL/ET/WI/02

<b>2. Details of unit under Calibration (UUC):-</b>			
Name :- AC High Voltage Tester (Ammeter)	Range :- 0 to 100 mAAC	Resolution :- 4 mAAC	
I.D No. :- 8637/174(P)/09-10	Specified Accuracy :- ± 2 %		
Make :- Rectifier & Electronics	Location :- ---		

<b>3.Details of Equipment Used for Calibration</b>	
Name :- Multifunction Calibration System	
Make/I.D No. :- Fluke / PIS/UNICAL/03	
Certificate No. :- M-220829-20-2	
Certified By :- GODREJ	
Calibration Validity :- 29-Aug-23	

<b>4.Calibration Results</b> :-				
Calibration Points mAAC	UUC Reading mAAC	Standard Reading mAAC	Error in mAAC	Error in %
20	20	19.955	0.045	0.23
40	40	39.927	0.073	0.18
60	60	59.871	0.129	0.21
80	80	79.743	0.257	0.32
100	100	99.597	0.403	0.40

**5.Accuracy in Measurement** :- ± 0.40 %

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

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Ambient Temp. :- 24.2 °C	Date of Receipt :- 6-Oct-22
Relative Humidity :- 52 % RH	Service Request No. :- A2022/22
Location of calibration :- On Site	Certificate No. :- A2022/10/068
Condition of Item :- OK	Date of Calibration :- 6-Oct-22
	Next Calibration Due On :- 6-Oct-23
	Calibration method No. :- PISPL/ET/WI/03

### 2. Details of unit under Calibration (UUC):-

Name :- AC High Voltage Tester	Range :- 0 to 100 KVAC
I.D No. :- NTPL/055/17-18	Resolution :- 0.1 KVAC
Make :- ntpl	Specified Accuracy :- ± 2 %
	Location :- ---

### 3.Details of Equipment Used for Calibration

Name :- High Voltage Probe	Digital Multimeter
Make/I.D No. :- Fluke/ PIS/HY/01	Rish/PIS/DMM/02
Certificate No. :- TSC/21-22/18060-1	TSC/21-22/18060-1
Certified By :- Transcal	Transcal
Calibration Validity :- 14-Mar-23	14-Mar-23

### 4.Calibration Results :-

Calibration Points KVAC	UUC Reading KVAC	Standard Reading KVAC	Error in KVAC	Error in %
5	5	4.988	0.012	0.24
10	10	9.984	0.016	0.16
15	15	14.962	0.038	0.25
20	20	19.951	0.049	0.24
28	28	27.942	0.058	0.21

**5.Accuracy in Measurement** :- ± 0.25 %

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

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<b>Bush Electromech and Engineering Pvt. Ltd.</b>		Date of Receipt	:-	6-Oct-22
K-89, MIDC, Waluj, Aurangabad 431 136.		Service Request No.	:-	A2022/22
Ambient Temp.	:- 24.2 °C	Certificate No.	:-	A2022/10/069
Relative Humidity	:- 52 % RH	Date of Calibration	:-	6-Oct-22
Location of calibration	:- On Site	Next Calibration Due On	:-	6-Oct-23
Condition of Item	:- OK	Calibration method No.	:-	PISPL/ET/WI/02

### 2. Details of unit under Calibration (UUC):-

Name	:- AC High Voltage Tester (Ammeter)	Range	:-	0 to 100 mAAC
I.D No.	:- NTPL/055/17-18	Resolution	:-	0.1 mAAC
Make	:- ntpl	Specified Accuracy	:-	± 2 %
		Location	:-	---

### 3.Details of Equipment Used for Calibration

Name	:- Multifunction Calibration System
Make/I.D No.	:- Fluke / PIS/UNICAL/03
Certificate No.	:- M-220829-20-2
Certified By	:- GODREJ
Calibration Validity	:- 29-Aug-23

### 4.Calibration Results :-

Calibration Points mAAC	UUC Reading mAAC	Standard Reading mAAC	Error in mAAC	Error in %
20	20.0	19.967	0.033	0.17
40	40.0	39.920	0.080	0.20
60	60.0	59.864	0.136	0.23
80	80.0	79.755	0.245	0.31
100	100.0	99.637	0.363	0.36

**5.Accuracy in Measurement** :- ± 0.36 %

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

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<b>2. Details of unit under Calibration (UUC):-</b>			
Name	:- AC High Voltage Tester	Range	:- 0 to 2 KVAC
I.D No.	:- 1101101	Resolution	:- ---
Make	:- Agronics	Specified Accuracy	:- ± 2 %
		Location	:- ---

<b>3.Details of Equipment Used for Calibration</b>			
Name	:- High Voltage Probe	Digital Multimeter	Rish/PIS/DMM/02
Make/I.D No.	:- Fluke/ PIS/HV/01		TSC/21-22/18060-1
Certificate No.	:- TSC/21-22/18060-1		TSC/21-22/18060-1
Certified By	:- Transcal		Transcal
Calibration Validity	:- 14-Mar-23		14-Mar-23

<b>4.Calibration Results</b> :-				
Calibration Points KVAC	UUC Reading KVAC	Standard Reading KVAC	Error in KVAC	Error in %
1	1	0.995	0.005	0.50
2	2	1.994	0.006	0.30

**5.Accuracy in Measurement** :- ± 0.50 %

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

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Ambient Temp. :- 24.2 °C	Date of Receipt :- 6-Oct-22
Relative Humidity :- 52 % RH	Service Request No. :- A2022/22
Location of calibration :- On Site	Certificate No. :- A2022/10/071
Condition of Item :- OK	Date of Calibration :- 6-Oct-22
	Next Calibration Due On :- 6-Oct-22
	Calibration method No. :- PISPL/ET/WI/03

<b>2. Details of unit under Calibration (UUC):-</b>			
Name :- Insulation Tester	Range :- 0 to 2.5 KVAC		
I.D No. :- 363167	Resolution :- --		
Make :- Meco	Specified Accuracy :- ± 2 %		

<b>3.Details of Equipment Used for Calibration</b>			
Name :- High Voltage Probe	Digital Multimeter		
Make/I.D No. :- Fluke/ PIS/HV/01	Rish/PIS/DMM/02		
Certificate No. :- TSC/21-22/18060-1	TSC/21-22/18060-1		
Certified By :- Transcal	Transcal		
Calibration Validity :- 14-Mar-23	14-Mar-23		

<b>4.Calibration Results</b> :-				
Calibration Points KVAC	UUC Reading KVAC	Standard Reading KVAC	Error in KVAC	Error in %
1	1	0.998	0.002	0.20
2.5	2.5	2.492	0.008	0.32

**5.Accuracy in Measurement** :- ± 0.32 %

**6.Remark** :- The Unit Under Calibration Found to Perform Satisfactorily.

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