National Accreditation Board for Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

NASHIK ENGINEERING CLUSTER

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

SAHASTRARASHMI, C-10, MIDC, AMBAD, NASHIK, MAHARASHTRA, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2248

Issue Date: 07/11/2024 **Valid Until:** 06/11/2028

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: NASHIK ENGINEERING CLUSTER

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : NASHIK ENGINEERING CLUSTER, SAHASTRARASHMI, C-10, MIDC, AMBAD, NASHIK, MAHARASHTRA, INDIA

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S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Permanent Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA To 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.1 VArh to 120 kVArh	0.17 % to 0.77 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Three Phase @ 50 Hz, 30 V to 320 V, 1 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 Varh to 115.2 kVarh	0.04 % to 0.02 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power Single & Three Phase At 50 Hz, 1 V to 1000 V, 5 mA to120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.1 Var to 120 kVar	0.17 % to 0.77 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Energy Three Phase @ 50 Hz, 30 V to 320 V, 1 mA To 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 Wh to 115.2 kWh	0.04 % to 0.02 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power Single & Three Phase @ 50 Hz, 1 V to 1000 V, 500 mA to 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 W to 120 kW	0.17 % to 0.77 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power Three Phase @ 50 Hz, 30 V to 320 V, 1 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 W to 115.2 kW	0.04 % to 0.02 %

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7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Power Analyzer by direct Method	1 A to 120 A	0.097 % to 0.45 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Meter Test System By Comparison Method	1 mA to 120 A	0.015 % to 0.062 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	10 µA to 100 µA	0.1 % to 0.02 %
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	10 mA to 10 A	0.043 % to 0.3 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	100 µA to 10 mA	0.02 % to 0.043 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @10 Hz to 1 kHz	Using 8½ DMM By Direct Method	10 µA to 100 µA	0.041 % to 0.006 %

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13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @10 Hz to 10 kHz	Using 8½ DMM By Direct Method	10 mA to 10 A	0.009 % to 0.028 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @10 Hz to 10 kHz	Using 8½ DMM By Direct Method	100 µA to 10 mA	0.006 % to 0.009 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @40 Hz to 5 kHz	Using 8½ DMM By Direct Method	10 A to 20 A	0.028 % to 0.107 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Active Single & Three Phase @ 50 Hz, 1 V To 1000 V, 500 mA to 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 Wh to 120 kWh	0.17 % to 0.77 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Active Single & Three Phase At 50 Hz, 1 V To 1000 V, 500 mA to 120 A, 0.2 PF Lag/Lead To UPF	Using Digital Power Analyzer by Direct Method	0.1 Wh to 120 kWh	0.17 % to 0.77 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Active Single & Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Comparison Method	6 mWh to 115.2 kWh	0.21 % to 0.02 %

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19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Reactive Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 VArh to 120 kVArh	0.17 % to 0.67 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Reactive Single & Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Comparison Method	6 mVArh to 115.2 kVArh	0.04 % to 0.02 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC High Voltage @ 50 Hz	Using High Voltage Divider with kV meter By Comparison Method	1 kV to 200 kV	1.7 % to 1.15 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Power Active Single & Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Comparison Method	6 mW to 115.2 kW	0.21 % to 0.02 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Power Reactive Single & Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Comparison Method	6 mVar to 115.2 kVar	0.04 % to 0.02 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to 200 A, 0.2 PF to UPF (Lag/Lead)	Using Power Analyzer, Source By Comparison Method	24 VArh to 74 kVArh	0.04 % to 0.03 %

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25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power Three Phase @ 50 Hz, 30 V to 320 V, 1 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 VAr to 115.2 kVAr	0.04 % to 0.02 %
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 Var to 120 kVar	0.17 % to 0.4 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance @ 1kHz (4 Wire)	Using LCR Meter By Direct Method	10 mohm to 10 kohm	1.19 % to 0.42 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 10 Hz to 1 MHz	Using AC Measurement Standard By Direct Method	1 mV to 1 V	0.95 % to 0.05 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 10 Hz to 1 MHz	Using AC Measurement Standard By Direct Method	1 V to 20 V	0.05 % to 0.02 %
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 10 Hz to 100 kHz	Using AC Measurement Standard By Direct Method	20 V to 200 V	0.02 % to 0.01 %

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31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 10 Hz to 50 Hz	Using 8½ DMM By Direct Method	1 mV to 10 mV	0.036 % to 0.012 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 20 Hz to 1 MHz	Using 8½ DMM By Direct Method	1 V to 10 V	0.009 % to 0.011 %
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 20 Hz to 1 MHz	Using 8½ DMM By Direct Method	100 mV to 1 V	0.005 % to 0.009 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 20 Hz to 100 kHz	Using 8½ DMM By Direct Method	10 mV to 100 mV	0.012 % to 0.005 %
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 20 Hz to 100 kHz	Using 8½ DMM By Direct Method	10 V to 100 V	0.011 % to 0.017 %
36	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	2 mV to 20 mV	0.31 % to 0.033 %

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37	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	20 mV to 200 mV	0.033 % to 0.021 %
38	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	200 mV to 200 V	0.021 % to 0.015 %
39	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 20 kHz	Using 8½ DMM By Direct Method	100 V to 1000 V	0.017 % to 0.016 %
40	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 1 kHz	Using AC Measurement Standard By Direct Method	200 V to 1000 V	0.001 % to 0.012 %
41	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	200 V to 1000 V	0.015 % to 0.02 %
42	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Energy (1Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Comparison Method	6 mVAh to 38.4 kVAh	0.052 % to 0.02 %

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43	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Energy (3 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Comparison Method	18 mVAh to 115.2 kVAh	0.052 % to 0.02 %
44	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Power (1 Phase) 1 V to 480 V, 1 A to 120 A at 50 Hz	Using Power Analyzer By Direct Method	0.8 VA to 120 kVA	0.11 % to 0.005 %
45	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Power (1 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Comparison Method	6 mVA to 38.4 kVA	0.052 % to 0.02 %
46	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Power (3 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Comparison Method	18 mVA to 115.2 kVA	0.052 % to 0.2 %
47	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	100 pF, Tan delta 0.01 % to 1 %	0.29 % to 0.27, 0.000056 %
48	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	1000pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27, 0.0006 %

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49	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 2 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	10000 pF, Tan Delta:0.5 % to 1 %	0.29 % to 0.27 %, 0.000056 % to to 0.0006
50	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter By Direct Method	100 pF to 1 mF	0.13 % to 0.17 %
51	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	CT Burden Box(1A & 5A, 50 Hz & 60 Hz @ 0.8 PF to UPF)	Using Digital Power Analyzer by Direct Method	1 VA to 110 VA	0.105 % to 0.12 %
52	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 30 V To 240 V & 1 mA To 120 A at 50 Hz	Using Power Analyzer By Comparison Method	1st Order to 39th Order	0.83 %
53	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 30 V To 240 V & 1 mA To 120 A at 50 Hz	Using Power Analyzer By Comparison Method	1st Order to 50th Order	0.8 %
54	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @1 kHz	Using LCR Meter By Direct Method	100 µH to 10 H	0.14 % to 0.13 %

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55	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Phase Angle)	Using Power Analyzer By Comparison Method	0.2 PF to UPF (Lag & Lead)	0.0031 PF
56	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Phase Angle)	Using Meter Test System By Comparison Method	0.2 Lag & Lead to UPF	0.0031 pF
57	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	PT Burden Box (110 V & 63.5 V, 50 Hz & 60 Hz, 0.8 PF)	Using Digital Power Analyzer by Direct Method	2.5 VA to 300 VA	0.2 % to 0.3 %
58	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Reactive Power single & Three Phase @ 50 Hz, 1 V To 1000 V, 5 mA To 200 A, 0.2 PF To UPF (Lag/Lead)	Using Power Analyzer, Source By Comparison Method	24 VAr to 74 kVAr	0.04 % to 0.03 %
59	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Energy Single Phase At 50 HZ, 30 V TO 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	6 mWh to 38.4 kWh	0.04 % to 0.02 %
60	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Energy Three Phase At 50 HZ, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	0.02 Wh to 115.2 kWh	0.04 % to 0.02 %

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61	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 1 kHz	Using MFC By Direct Method	200 µA to 2 mA	0.006 % to 0.009 %
62	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 10 kHz	Using MPC By Direct Method	329 mA to 3.3 A	0.001 % to 0.021 %
63	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 10 kHz	Using MFC By Direct Method:	2 mA to 200 mA	0.009 % to 0.009 %
64	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 30 kHz	Using MPC By Direct Method	3.29 mA to 329 mA	0.08 % to 0.001 %
65	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 40 Hz to 1 kHz	Using MFC By Direct Method	10 µA to 200 µA	0.001 % to 0.006 %
66	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 40 Hz to 1 kHz	Using MPC By Direct Method	29 µA to 329 µA	0.013 % to 0.00028 %
67	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 40 Hz to 10 kHz	Using MFC By Direct Method	200 mA to 2 A	0.009 % to 0.019 %

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68	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 30 kHz	Using MPC By Direct Method	330 µA to 2 mA	0.002 %
69	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 30 kHz	Using MPC By Direct Method	329 µA to 3.29 mA	0.00028 % to 0.08 %
70	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 5 kHz	Using MPC By Direct Method	11 A to 20 A	0.038 % to 0.098 %
71	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 5 kHz	Using MPC By Direct Method	3.3 A to 11 A	0.021 % to 0.038 %
72	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using MPC & 50 Turn Coil By Direct Method	20 A to 1000 A	0.032 % to 0.91 %
73	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using Meter Test System & 50 Turn Coil By Direct Method	50 A to 6000 A	0.0297 % to 0.72 %
74	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @50Hz	Using Meter Test System & 50 turn current coil By Comparison Method	50 A to 3000 A	0.2 % to 0.72 %

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75	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Active Single Phase At 50 HZ, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	6 mW to 38.4 kW	0.04 % to 0.02 %
76	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Active Three Phase At 50 HZ, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	0.02 W to 115.2 kW	0.04 % to 0.02 %
77	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Reactive Single Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	6 mVAr to 38.4 kVAr	0.04 % to 0.02 %
78	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Reactive Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	0.02 VAr to 115.2 kVAr	0.04 % to 0.02 %
79	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Single Phase At 50 Hz, 1 V To 1000 V, 500 mA To 80 A, 0.2 PF Lag/Lead To UPF	Using Power Standard By Direct Method	0.1 W to 80 kW	0.55 %
80	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Reactive Energy Single Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	6 mVArh to 38.4 kVArh	0.04 % to 0.02 %
81	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Reactive Energy Three Phase At 50 Hz, 30 V To 320 V, 1 mA To 120 A, 0.2 PF Lag/Lead To UPF	Using Meter Test System By Direct Method	0.02 VArh to 115.2 kVArh	0.04 % to 0.02 %

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82	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	1 ohm @ 1.2 A	0.26 %
83	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 wire)	Using Decade Resistance Box By Direct Method:	10 kohm @ 0.015 A	0.24 %
84	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 wire)	Using Decade Resistance Box By Direct Method	100 µohm, 100 A	0.03 %
85	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	100 ohm @ 0.12 A	0.24 %
86	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	1 kohm @ 0.035 A	0.24 %
87	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method	1 mohm@50 A	0.03 %
88	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	10 mohm to 10 mohm @15A	0.03 %

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89	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	10 ohm @ 0.35 A	0.24 %
90	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	100 mohm@ 3.5 A	0.03 %
91	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 300 kHz	Using MPC By Direct Method	32 mV to 329 mV	0.455 % to 0.0003 %
92	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 50 kHz	Using MPC By Direct Method	3.2 V to 329 V	0.0019 % to 0.03 %
93	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 8 kHz	Using MPC By Direct Method	300 V to 1000 V	0.03 % to 0.029 %
94	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using MFC By Direct Method:	200 V to 1000 V	0.012 % to 0.012 %
95	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 1 MHz	Using MFC By Direct Method	1 mV to 20 mV	0.004 % to 0.016 %

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96	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 1 MHz	Using MFC By Direct Method:	20 mV to 200 mV	0.016 % to 0.01 %
97	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 1 MHz	Using MFC By Direct Method	200 mV to 20 V	0.01 % to 0.008 %
98	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 100 kHz	Using MFC By Direct Method	20 V to 200 V	0.008 % to 0.012 %
99	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 100 kHz	Using MPC By Direct Method:	329 mV to 3.2 V	0.0003 % to 0.019 %
100	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @40 Hz to 20 kHz	Using MPC By Direct Method	1 mV to 32 mV	0.015 % to 0.455 %
101	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Apparent Energy (1Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Direct Method	6 mVAh to 38.4 kVAh	0.052 % to 0.043 %
102	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Apparent Energy (3 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Direct Method	18 mVAh to 115.2 kVAh	0.052 % to 0.02 %

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103	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Apparent Power (1 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Direct Method	6 mVA to 38.4 kVA	0.052 % to 0.02 %
104	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Apparent Power (3 Phase) 30 V to 320 V, 1 mA to 120 A at 50 Hz	Using Meter Test System By Direct Method	18 mVA to 115.2 kVA	0.052 % to 0.02 %
105	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	100 pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27, 0.000056 %
106	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	1000 pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27 %, 0.000056 to 0.000
107	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 2 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	Capacitance: 0.5 pF to 10000 pF, TAN Delta: 1 %	0.29 % to 0.27, 0.000056 %
108	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Decade Capacitance Box By Direct Method:	100 pF to 100 µF	1.16 % to 1.7 %
109	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using MPC By Direct Method	220 pF to 3.3 µF	0.004 % to 0.5 %

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110	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Harmonics @ 30 V To 320 V & 1 mA To 120 A at 50 Hz	Using Meter Test System By Comparison Method	1st Order to 39th Order	0.5 %
111	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Harmonics at 50 Hz	Using MPC By Direct Method:	1st Order to 39th Order	0.6 %
112	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Inductance @1 kHz	Using Decade Inductance Box By Direct Method:	100 µH to 10 H	0.38 % to 0.2 %
113	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor (Phase Angle)	Using MPC By Direct Method:	0.2 PF to 1 UPF (Lag & Lead)	0.0029 PF to 0.0029 PF
114	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	1 A to 10 A	0.034 % to 0.016 %
115	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Power Analyzer by direct Method	1 A to 120 A	0.144 % to 0.7 %
116	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	10 µA to 100 µA	0.08 % to 0.006 %

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117	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC CURRENT	Using 8½ DMM By Direct Method	10 µA to 100 µA	0.026 % to 0.0019 %
118	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC CURRENT	Using 8½ DMM By Direct Method	100 µA to 100 mA	0.0019 % to 0.0034 %
119	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	100 µA to 100 mA	0.006 % to 0.008 %
120	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	100 mA to 1 A	0.008 % to 0.034 %
121	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC CURRENT	Using 8½ DMM By Direct Method	100 mA to 20 A	0.0034 % to 0.047 %
122	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power Single Phase	Using Power Analyzer By Direct Method	0.5 W to 500 kW	0.22 % to 0.5 %
123	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE	Using 8½ DMM By Direct Method	1 mohm to 1 ohm	0.118 % to 0.0004 %

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124	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE	Using 8½ DMM By Direct Method	1 Ohm to 100 Ohm	0.0004 %
125	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE	Using 8½ DMM By Direct Method	100 kohm to 100 Mohm	0.0008 % to 0.0072 %
126	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE	Using 8½ DMM By Direct Method	100 Mohm to 10 Gohm	0.0072 % to 0.11 %
127	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using 8½ DMM By Direct Method	100 ohm to 100 kohm	0.0004 % to 0.0006 %
128	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE @ 1 kV	Using Digital Insulation Tester By Direct Method	100 kohm to 10 Tohm	0.92 % to 2.75 %
129	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance 2 wire	Using 6½ DMM By Direct Method	1 mohm to 1 Gohm	0.685 % to 1.66 %
130	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance 4 wire	Using Digital Low Resistance Meter at 600 A DC By Direct Method	1 µohm to 1 mohm	1.43 % to 0.84 %

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131	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	1 mV to 10 mV	0.035 %
132	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM By Direct Method	1 V to 20 V	0.0003 %
133	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	10 mV to 10 V	0.035 % to 0.01 %
134	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC VOLTAGE	Using 8½ DMM By Direct Method	10 mV to 100 mV	0.0009 % to 0.0005 %
135	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	10 V to 1000 V	0.001 %
136	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM By Direct Method	100 µV to 10 mV	0.016 % to 0.0009 %
137	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM By Direct Method	100 mV to 1 V	0.0005 % to 0.0003 %

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138	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM By Direct Method	100 V to 1000 V	0.0005 %
139	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC VOLTAGE	Using 8½ DMM By Direct Method	20 V to 100 V	0.0003 % to 0.0005 %
140	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1 µA to 190 µA	0.013 % to 0.026 %
141	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1 A to 20 A	0.015 % to 0.017 %
142	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1.9 mA to 19 mA	0.006 % to 0.0035 %
143	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC By Direct Method	10 µA to 200 µA	0.0035 % to 0.002 %
144	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	10.9 A to 20 A	0.019 % to 0.019 %

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145	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	19 mA to 190 mA	0.0035 % to 0.006 %
146	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	190 µA to 1.9 mA	0.026 % to 0.009 %
147	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	190 mA to 1 A	0.0033 % to 0.015 %
148	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC By Direct Method	2 mA to 20 mA	0.001 % to 0.0012 %
149	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC & 50 Turn Coil By Direct Method:	20 A to 1000 A	0.011 % to 0.1 %
150	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC By Direct Method	20 mA to 200 mA	0.0012 %
151	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC By Direct Method	200 µA to 2 mA	0.002 % to 0.001 %

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152	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC By Direct Method	200 mA to 2 A	0.0012 % to 0.001 %
153	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC POWER SINGLE PHASE 1V to 600V & 1mA to 20A	Using MPC By Direct Method	1 mW to 12 kW	0.22 % to 0.17 %
154	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method	1 Ohm	0.0025 %
155	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	1.9 kohm	0.001 %
156	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	1.9 Mohm	0.0021 %
157	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method	1.9 ohm	0.0031 %
158	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	100 kohm	0.0006 %

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159	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	100 Mohm	0.0072 %
160	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	100 Ohm	0.0005 %
161	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	19 Mohm	0.0016 %
162	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC RESISTANCE DISCRETE VALUE	Using MFC By Direct Method:	19 Ohm	0.001 %
163	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC resistance (2 Wire)	Using MPC By Direct Method	330 kohm to 1100 Mohm	0.0058 % to 1.79 %
164	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	1 µohm@ 200 A	0.61 %
165	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	1 mohm @ 100 A	0.61 %

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166	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using MPC By Direct Method:	1 mohm to 330 kohm	0.01 % to 0.0058 %
167	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using Decade Resistance Box By Direct Method	1 ohm @ 1.2 A	0.0042 %
168	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	10 µohm@200 A	0.87 %
169	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	10 Mohm @ 20 µA	0.007 %
170	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	10 ohm @ 0.1 A	0.0009 %
171	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	100 µohm @ 200 A to	0.87 %
172	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	100 ohm @ 0.02 A	0.0012 %

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173	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 2 wire	Using MFC By Direct Method:	1 kohm	0.0035 %
174	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 2 wire	Using MFC By Direct Method:	1 Mohm	0.0011 %
175	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 2 wire	Using MFC By Direct Method:	10 kohm	0.0007 %
176	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 2 Wire	Using MFC By Direct Method:	10 Mohm	0.002 %
177	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 2 wire	Using MFC By Direct Method:	190 kohm	0.0006 %
178	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 4 wire	Using MFC By Direct Method:	10 Ohm	0.0012 %
179	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 4 wire	Using MFC By Direct Method:	19 kohm	0.0007

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180	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (DISCRETE) 4 wire	Using MFC By Direct Method:	190 Ohm	0.0005 %
181	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance @ 1 kV	Using Electrical Safety Tester by direct Method	10 kohm to 100 Gohm	0.91 % to 1.51 %
182	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance @ 1 kV	Using Decade Resistance Box By Direct Method:	100 kohm to 10 Tohm	0.07 % to 1.84 %
183	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	1 kohm@0.035A	0.23 %
184	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	1 mohm@ 50 A	0.162 %
185	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Standard Resistance	1 Ohm@0.5A	0.001 %
186	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	10 kohm@0.015 A	0.23 %

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187	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	10 Ohm@0.35A	0.0012 %
188	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 µohm @ 100 A to	0.87 %
189	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 mohm@3.5A	0.0042 %
190	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 Ohm@0.12A	0.23 %
191	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4wire	Using Decade Resistance Box By Direct Method	10 mohm@15 A	0.0042 %
192	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	1 mV to 100 mV	0.003 % to 0.001 %
193	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MFC By Direct Method:	1 V to 10 V	0.0002 % to 0.0003 %

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194	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	1 V to 10 V	0.0007 % to 0.0007 %
195	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC By Direct Method	10 µV to 100 mV	0.0001 % to 0.0002 %
196	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	10 V to 1000 V	0.0007 % to 0.0008 %
197	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MFC By Direct Method	10 V to 1000 V	0.0003 % to 0.0002 %
198	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	100 µV to 1 mV	0.069 % to 0.018 %
199	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MFC By Direct Method:	100 mV to 1 V	0.0002 % to 0.0002 %
200	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method	100 mV to 1 V	0.0005 % to 0.0002 %

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201	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MPC By Direct Method:	100 mV to 1 V	0.001 % to 0.003 %
202	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MPC By Direct Method:	33 V to 330 V	0.0012 % to 0.0018 %
203	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method	330 V to 1000 V	0.0018 % to 0.0019 %
204	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	500 µV to 1 mV	0.001 % to 0.085 %
205	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer Phase Angle Error @ 50 Hz, 5 A to 3200 A / 1 A-5 A	Using Std. CT & Automatic Instrument Transformer Test Set by Comparison Method	120 % to 1 %	1.13 min to 3.56 min
206	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer Ratio Error @ 50 Hz, 5 A to 3200 A / 1 A-5 A	Using Std. CT & Automatic Instrument Transformer Test Set by Comparison Method	120 % to 1 %	0.024 % to 0.064 %

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207	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Phase Angle Error - CT Part (CT-PT Test Set /Analyzer) 1 A & 5 A	Using Std. CT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 1 %	1 min
208	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Phase Angle Error - PT Part (CT-PT Test Set /Analyzer) 63.5 V & 110 V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.8 min
209	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 11kV-22kV-33kV/v3//110V/v3	Using EPD System with Standard Capacitor & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.36 min to 3.53 min
210	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 22kV-33kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	1.85 min
211	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 3.3kV-6.6kV/v3//110 V/v3	Using Std. EPD system with Std. Capacitor & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.36 min to 3.53 min

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212	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 6.6kV-11kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.41 min
213	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 6.6kV-11kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.41 min
214	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 110V-440V-660V-1100V-2200V-3300V//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	2.96 Min
215	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 110V-440V-660V-1100V-2200V-3300V/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	2.96 min
216	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 22kV-33kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	1.85 min
217	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 11kV-22kV-33kV/v3//110V/v3	Using EPD system with Standard Capacitor & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 % to 0.09 %

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218	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer ratio Error 3.3kV-6.6kV/v3//110 V/v3	Using Std. EPD system with Std Capacitor & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 % to 0.09 %
219	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 110V-440V-660V-1100V-2200V-3300V/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.073 %
220	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 22kV-33kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
221	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 22kV-33kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
222	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 6.6kV-11kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 %
223	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 6.6kV-11kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 %

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224	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 110V-440V-660V-1100V-2200V-3300V//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
225	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Ratio Error - CT Part (CT-PT Test Set /Analyzer)(1 A & 5 A)	Using Std. CT & Automatic Instrument Transformer Test Set By Comparison Method	200 % to 1 %	0.03 %
226	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Ratio Error - PT Part (CT-PT Test Set /Analyzer) 63.5 V & 110 V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.02 %
227	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude	Using MPC By Direct Method:	1 mV to 130 V	0.9 % to 0.41 %
228	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Time Marker	Using MPC By Direct Method:	2 ns to 5 s	0.04 % to 0.017 %
229	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope(Band Width)	Using MPC By Direct Method:	50 kHz to 1100 MHz	8.05 % to 0.87

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230	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT-100	Using 8½ DMM by direct method	(-) 200 °C to 800 °C	0.07 °C
231	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B-Type	Using DMM 8½ by direct method	600 °C to 1800 °C	0.6 °C
232	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E-Type	Using DMM 8½ by direct method	(-) 250 °C to 1000 °C	0.08 °C
233	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J-Type	Using DMM 8½ by direct method	(-) 210 °C to 1200 °C	0.06 °C
234	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	Using DMM 8½ by direct method	(-) 200 °C to 1372 °C	0.06 °C
235	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple L-Type	Using DMM 8½ by direct method	(-) 200 °C to 900 °C	0.03 °C
236	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N-Type	Using DMM 8½ DC by direct method	(-) 200 °C to 1300 °C	0.06 °C

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237	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R-Type	Using DMM 8½ DC by direct method	0 °C to 1767 °C	0.1 °C
238	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S-Type	Using DMM 8½ by direct method	0 °C to 1767 °C	0.1 °C
239	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple T type	Using DMM 8½ by direct method	(-) 200 °C to 400 °C	0.08 °C
240	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple U-Type	Using DMM 8½ by direct method	(-) 200 °C to 600 °C	0.09 °C
241	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT-100	Using MPC Calibrator by Direct Method	(-) 200 °C to 800 °C	0.02 °C
242	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B-Type	Using MPC Calibrator by Direct Method	600 °C to 1820 °C	0.52 °C
243	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1000 °C	0.08 °C

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244	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J-Type	Using MPC Calibrator by direct Method	(-) 210 °C to 1200 °C	0.06 °C
245	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1350 °C	0.05 °C
246	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple L-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 900 °C	0.15 °C
247	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1300 °C	0.08 °C
248	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R-Type	Using MPC Calibrator by direct Method	0 °C to 1750 °C	0.07 °C
249	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	Using MPC Calibrator by Direct Method	0 °C to 1750 °C	0.09 °C
250	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple T type	Using MPC Calibrator by direct Method	(-) 200 °C to 400 °C	0.15 °C

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251	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple U Type	Using MPC Calibrator by direct Method	(-) 200 °C to 600 °C	0.19 °C
252	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter By Direct Method	1 Hz to 1.1 GHz	0.000012 % to 0.000025 %
253	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Period	Using Frequency Counter By Direct Method	2 ns to 5 s	0.11 % to 0.1 %
254	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison method	5 s to 86400 s	0.61 s to 0.84 s
255	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using MFC By Direct Method:	10 Hz to 1 MHz	0.0027 % to 0.228 %
256	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using MPC By Direct Method:	10 Hz to 1.1 GHz	0.001 % to 0.94 %
257	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Tachometer & tachometer calibrator by comparison method	10 rpm to 1000 rpm	1 rpm

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258	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Standard Tachometer & tachometer calibrator by comparison method	1000 rpm to 10000 rpm	3.4 rpm
259	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Standard Tachometer & tachometer calibrator by comparison method	1000 rpm to 5000 rpm	6 rpm
260	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Standard Tachometer & tachometer calibrator by comparison method	10000 rpm to 50000 rpm	9.2 rpm
261	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Photo-Contact Type)	Using Standard Tachometer & tachometer calibrator by comparison method	10 rpm to 1000 rpm	0.41 rpm
262	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Photo-Contact Type)	Using Standard Tachometer & tachometer calibrator by comparison method	50000 rpm to 99950 rpm	13 rpm
263	MECHANICAL-ACOUSTICS	Sound Level Meter	Using Sound Level Calibrator By Comparison method	114 dB @1 kHz	0.7 dB
264	MECHANICAL-ACOUSTICS	Sound Level Meter	Using Sound Level Calibrator By Comparison method	94 dB @ 1 kHz	0.7 dB
265	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bore Gauge with Dial (Transmission Accuracy)	Using Electronic Dial Calibration Tester/Plunger Dial Gauge By Comparison Method	0 mm to 1 mm	2.7 µm

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266	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper L.C. 0.01mm	Using Caliper Checker & External Micrometer By Comparison Method	0 to 600 mm	15 µm
267	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Coating Thickness Gauge L.C. 0.1 µm	Using Master Foils. By Comparison Method	0 to 2 mm	2.096 µm
268	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Cylindrical measuring Pin	Using ULM By Comparison Method	0 to 20 mm	1.175 µm
269	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Gauge LC 0.01 mm	Using Depth Checker By Comparison Method	0 to 300 mm	10.33 µm
270	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer LC 0.01 mm	Using Depth Checker By Comparison Method	0 to 300 mm	13.0 µm
271	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge (Lever Type) LC 0.001 mm	Using electronic Dial Calibration Tester/ ULM By Comparison Method	0 mm to 1 mm	2.0 µm

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272	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge (Plunger Type) LC 0.001 mm	Using Electronic Dial Calibration Tester By comparison Method	0 to 25 mm	2.0 µm
273	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Snap Gauge LC 0.001 mm Parallelism of Anvil faces	Using Gauge Block Set By Comparison Method	5 mm to 100 mm	2.8 µm
274	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Thickness Gauge LC 0.01 mm	Using Gauge Block Set By Comparison Method	0 to 10 mm	6.6 µm
275	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Digimatic Indicator LC 0.001 mm	Using Electronic Dial Calibration Tester By Comparison Method	0 to 25 mm	2.0 µm
276	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer LC 0.001 mm	Using Slip Gauge set,Long Slip gauge set,Gauge Block Set by comparison method	0 to 100 mm	1.4 µm
277	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer LC 0.001 mm LC 0.01 mm	Using Slip Gauge Set,Long Slip Gauge,Gauge Block Set By comparison Method	100 mm to 400 mm	11.9 µm

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278	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Feeler gauge / Coating Foils	Using ULM By Comparison Method	0 to 2.5 mm	1.344 µm
279	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge LC 0.01 mm	Using Caliper Checker & Surface Plate By comparison Method	0 to 600 mm	12.4 µm
280	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Scale L.C. 0.5mm	Using electronic tape & Scale Calibrator By Comparison Method	0 to 1000 mm	17.3 µm
281	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring tape L.C. 0.5mm	Using Electronic tape & Scale Calibrator By Comparison Method	0 to 30 m	165XSqrt(L/1000) µm, where L in metre.
282	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Micrometer Setting Rod	Using ULM By Comparison Method	25 mm to 400 mm	5.7 µm
283	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Pistol Caliper LC 0.10 mm	Using Gauge Block Set By Comparison Method	0 to 50 mm	80 µm

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284	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Plug Gauge/OD Gauge/Paddle Gauge	Using ULM By Comparison Method	3.0 mm to 250 mm	6.1 µm
285	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Ring Gauge/ID Gauge/Setting Ring Gauge	Using ULM /Master Ring Gauge By Comparison Method	4 mm to 250 mm	6.5 µm
286	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Radius Gauge	Using video Measuring Machine By Comparison Method	0.1 mm to 25 mm	6 µm
287	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Snap Gauge / Gap Gauge	Using Gauge Block Set By Comparison Method	1 mm to 3 mm	1.5 µm
288	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Snap Gauge /Gap Gauge	Using Gauge Block Set By Comparison Method	100 mm to 300 mm	4.8 µm
289	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Snap Gauge /Gap Gauge	Using Gauge Block Set By Comparison Method	50 mm to 100 mm	2 µm

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290	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieve	Using Video Measuring Machine By Comparison Method	0.045 mm to 1 mm	3.8 µm
291	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Measuring Wire	Using ULM By Comparison Method	0.17 mm to 6.35 mm	0.9 µm
292	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch gauge	Using Video Measuring Machine By Comparison Method	0.605 mm to 6.350 mm	12 µm
293	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Plug Gauge	Using ULM & Thread Measuring Wire By Comparison Method	3 mm to 250 mm	4.9 µm
294	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Ring Gauge	Using ULM & master Ring gauge By Comparison Method	4 mm to 250 mm	5.1 µm
295	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Caliper Checker	Using Slip Gauge set of 'O' Grade & Electronic Height Gauge. By Comparison Method:	0 to 600 mm	8.58 µm

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296	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Electronic Height Gauge - Linear (L.C.: 0.1 µm)	Using Check Master & Granite Square by comparison method	0 to 600 mm	4.8 µm
297	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Electronic Height Gauge- Squareness (L.C.: 0.1 µm)	Using Check Master & Granite Square by comparison method	0 to 600 mm	12.07 µm
298	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Dead Weight Tester	Using Piston Gauge by Cross Float Method as per EURAMET cg-3 Guidlines	1 bar to 56 bar	0.012 %
299	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Dead Weight Tester	Using Piston Gauge by Cross Float Method as per EURAMET cg-3 Guidlines	50 bar to 1000 bar	0.03 %
300	MECHANICAL-PRESSURE INDICATING DEVICES	Dial and Digital Vacuum Gauge/Indicator	Using Digital Vacuum Gauge with Hand Pump by comparison method Based on DKD-R-6-1	(-) 0.88 bar to (-) 0.1 bar	0.0083 bar
301	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure Dial and Digital Pressure gauge/Indicator	Using Hydraulic Piston Gauge By Direct Method as per DKD-R-6-1	1 bar to 56 bar	0.03 bar
302	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure Dial and Digital Pressure gauge/Indicator	Using Hydraulic Piston Gauge By Direct Method as per DKD-R-6-1	50 bar to 1000 bar	0.09 bar
303	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Gauge/Indicator	Using Digital Pressure Gauge with Hand Pump By comparison Method as per DKD R6-1	0 to 30 bar	0.008 bar

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304	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Transmitter/Switch/ Transducer/Indicator	Using Digital Pressure Gauge with Hand Pump, 6½ DMM By comparison Method as per DKD-R-6-1	0 to 30 bar	0.009 bar
305	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench (Type I & II)	Using Electronic Torque Wrench tester By Comparison Method as per IS/ISO 6789 : Part 2 : 2017	100 Nm to 1000 Nm	1.14 %
306	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench (Type I & II)	Using Electronic Torque Wrench tester By Comparison Method as per IS/ISO 6789 : Part 2 : 2017	10 Nm to 100 Nm	1.67 % to 1.32 %
307	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial /Digital Meters with sensor, Thermo Hygrometer	Using standard Temperature & Humdity indicator with sensor, Humidity Chamber/ generator by Comparison method	10 % rh to 95 % rh @ 10 °C to 60 °C	1.33 % rh
308	THERMAL-SPECIFIC HEAT & HUMIDITY	Temperature/humdity Controller with sensor of Humidity Chambers	Using standard Temperature & Humdity indicator with sensor by Comparison method	10 % rh to 95 % rh @10°C to 60°C	1.33 % rh
309	THERMAL-SPECIFIC HEAT & HUMIDITY	Thermohygrometer / Humidity Transmitter / Digital Humidity Meters with probe	Using Humidity Chamber/ Generator, RH and temperature sensor with indicator, 6.5DMM by comparison method.	10 °C to 60 °C @ 10 % rh to 95 % rh	0.22 °C

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310	THERMAL-SPECIFIC HEAT & HUMIDITY	Wireless Data Logger	Using Climatic Chamber & Standard temperature & Humidity sensor with indicator by comparison method	10 % rh to 95 % rh @ 25 °C	1.33 % rh
311	THERMAL-TEMPERATURE	Infrared / Non-Contact Thermometers/ Thermal Imager (Temperature only)	Using Non-Contact Pyrometer & Black Body Furnace (emissivity 0.95) by Comparison Method	100 °C to 600 °C	4.86 °C
312	THERMAL-TEMPERATURE	Infrared / Non-Contact Thermometers/ Thermal Imager (Temperature only)	Using Non-Contact Pyrometer, Black Body Furnace (emissivity 0.95) by Comparison Method	50 °C to 100 °C	2.77 °C
313	THERMAL-TEMPERATURE	Liquid in Glass Thermometer	Using SPRT Sensor with indicator, Oil Bath by Comparison Method	35 °C to 250 °C	0.61 °C
314	THERMAL-TEMPERATURE	SPRT's, PRT's, RTD's with indicator or without indicator , Thermocouple with or without indicator	Using SPRT Sensor with indicator, Low Temperature Bath by Comparison Method	(-) 80 °C to 100 °C	0.016 °C
315	THERMAL-TEMPERATURE	SPRT's, PRT's, RTD's with indicator or without indicator , Thermocouple with & without indicator	Using SPRT Sensor with indicator & dry bath by Comparison Method	350 °C to 660 °C	0.6 °C
316	THERMAL-TEMPERATURE	SPRT's, PRT's, RTD's with indicator or without indicator/ Digital Thermometer/ Thermcouple with or without indicator	Using SPRT Sensor with indicator, Dry Bath by Comparison Method	100 °C to 350 °C	0.031 °C

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317	THERMAL-TEMPERATURE	Temperature Indiactor with sensor of Dry well / Bath (Single Position)	Using Standard S Type Thermocouple with indicator by comparison Method:	900 °C to 1200 °C	1.62 °C
318	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Dry well / Bath (Single position)	Using Standard S Type Thermocouple with indicator by comparison Method:	650 °C to 900 °C	1.62 °C
319	THERMAL-TEMPERATURE	Temperature Indiocator with sensor of Dry well / Bath (Single Position)	Using SPRT Sensor with indicator by Comparison Method	(-) 80 °C to 660 °C	0.6 °C
320	THERMAL-TEMPERATURE	Thermocouple with or without Indicator/ Temperature gauge	Using Standard S Type Thermocouple with indicator & Dry Well Bath by comparison Method	650 °C to 900 °C	1.62 °C
321	THERMAL-TEMPERATURE	Thermocouple with or without Indicator/ Temperature gauge	Using Standard S Type Thermocouple with indicator & Dry Well Bath by comparison Method	900 °C to 1200 °C	1.72 °C
322	THERMAL-TEMPERATURE	Wireless Data Logger	Using Standard PRT & indicator, Climatic Chamber by comparison method	(-) 60 °C to 150 °C	1.22 °C

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Site Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA To 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.1 VArh to 120 kVArh	0.17 % to 0.77 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Three Phase @ 50 Hz, 30 V to 320 V, 1 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 Varh to 115.2 kVarh	0.04 % to 0.02 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power Single & Three Phase At 50 Hz, 1 V to 1000 V, 5 mA to120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.1 Var to 120 kVar	0.17 % to 0.77 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power Single & Three Phase @ 50 Hz, 1 V to 1000 V, 500 mA to 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 W to 120 kW	0.17 % to 0.77 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power Three Phase @ 50 Hz, 30 V to 320 V, 1 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Meter Test System, Source By Comparison Method	0.02 W to 115.2 kW	0.04 % to 0.02 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Power Analyzer by direct Method	1 A to 120 A	0.097 % to 0.45 %

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7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Standard Current Transformer & 6½ Digit Multi Meter by direct method	5 A to 6000 A	1.34 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	10 µA to 100 µA	0.1 % to 0.02 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	10 µA to 100 µA	0.1 % to 0.02 %
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	10 mA to 10 A	0.043 % to 0.3 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	100 µA to 10 mA	0.02 % to 0.043 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Active Single & Three Phase @ 50 Hz, 1 V To 1000 V, 500 mA to 120 A, 0.2 PF To UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 Wh to 120 kWh	0.17 % to 0.77 %

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13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Active Single & Three Phase At 50 Hz, 1 V To 1000 V, 500 mA to 120 A, 0.2 PF Lag/Lead To UPF	Using Digital Power Analyzer by Direct Method	0.1 Wh to 120 kWh	0.17 % to 0.77 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Energy Reactive Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to 120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 VArh to 120 kVArh	0.17 % to 0.67 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC High Voltage @ 50 Hz	Using High Voltage Divider with kV meter By Comparison Method	1 kV to 200 kV	1.7 % to 1.15 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to 200 A, 0.2 PF to UPF (Lag/Lead)	Using Power Analyzer, Source By Comparison Method	24 VArh to 74 kVArh	0.04 % to 0.03 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power Single & Three Phase @ 50 Hz, 1 V to 1000 V, 5 mA to120 A, 0.2 PF to UPF (Lag/Lead)	Using Digital Power Analyzer by Direct Method	0.2 Var to 120 kVar	0.17 % to 0.4 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance @ 1kHz (4 Wire)	Using LCR Meter By Direct Method	10 mohm to 10 kohm	1.19 % to 0.42 %

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19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	2 mV to 20 mV	0.31 % to 0.033 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	20 mV to 200 mV	0.033 % to 0.021 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 40 Hz to 1 kHz	Using 6½ DMM By Direct Method	200 mV to 200 V	0.021 % to 0.015 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 1 kHz	Using 6½ DMM By Direct Method	200 V to 1000 V	0.015 % to 0.02 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Apparent Power (1 Phase) 1 V to 480 V, 1 A to 120 A at 50 Hz	Using Power Analyzer By Direct Method	0.8 VA to 120 kVA	0.11 % to 0.005 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	100 pF, Tan delta 0.01 % to 1 %	0.29 % to 0.27, 0.000056 %

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25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	1000pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27, 0.0006 %
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance & Tan Delta @ 2 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	10000 pF, Tan Delta:0.5 % to 1 %	0.29 % to 0.27 %, 0.000056 % to to 0.0006
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter By Direct Method	100 pF to 1 mF	0.13 % to 0.17 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	CT Burden Box(1A & 5A, 50 Hz & 60 Hz @ 0.8 PF to UPF)	Using Digital Power Analyzer by Direct Method	1 VA to 110 VA	0.105 % to 0.12 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 30 V To 240 V & 1 mA To 120 A at 50 Hz	Using Power Analyzer By Comparison Method	1st Order to 39th Order	0.83 %
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 30 V To 240 V & 1 mA To 120 A at 50 Hz	Using Power Analyzer By Comparison Method	1st Order to 50th Order	0.8 %

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31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @1 kHz	Using LCR Meter By Direct Method	100 µH to 10 H	0.14 % to 0.13 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Phase Angle)	Using Power Analyzer By Comparison Method	0.2 PF to UPF (Lag & Lead)	0.0031 PF
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	PT Burden Box (110 V & 63.5 V, 50 Hz & 60 Hz, 0.8 PF)	Using Digital Power Analyzer by Direct Method	2.5 VA to 300 VA	0.2 % to 0.3 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Reactive Power single & Three Phase @ 50 Hz, 1 V To 1000 V, 5 mA To 200 A, 0.2 PF To UPF (Lag/Lead)	Using Power Analyzer, Source By Comparison Method	24 VAr to 74 kVAr	0.04 % to 0.03 %
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 10 kHz	Using MPC By Direct Method	329 mA to 3.3 A	0.001 % to 0.021 %
36	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 10 Hz to 30 kHz	Using MPC By Direct Method	3.29 mA to 329 mA	0.08 % to 0.001 %

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37	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 40 Hz to 1 kHz	Using MPC By Direct Method	29 µA to 329 µA	0.013 % to 0.00028 %
38	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 30 kHz	Using MPC By Direct Method	330 µA to 2 mA	0.002 %
39	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 30 kHz	Using MPC By Direct Method	329 µA to 3.29 mA	0.00028 % to 0.08 %
40	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 5 kHz	Using MPC By Direct Method	11 A to 20 A	0.038 % to 0.098 %
41	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz to 5 kHz	Using MPC By Direct Method	3.3 A to 11 A	0.021 % to 0.038 %
42	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using MPC & 50 Turn Coil By Direct Method	20 A to 1000 A	0.032 % to 0.91 %
43	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Power Single Phase At 50 Hz, 1 V To 1000 V, 500 mA To 80 A, 0.2 PF Lag/Lead To UPF	Using Power Standard By Direct Method	0.1 W to 80 kW	0.55 %

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44	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	1 ohm @ 1.2 A	0.26 %
45	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 wire)	Using Decade Resistance Box By Direct Method:	10 kohm @ 0.015 A	0.24 %
46	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 wire)	Using Decade Resistance Box By Direct Method	100 µohm, 100 A	0.03 %
47	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1 kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	100 ohm @ 0.12 A	0.24 %
48	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	1 kohm @ 0.035 A	0.24 %
49	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method	1 mohm@50 A	0.03 %
50	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	10 mohm to 10 mohm @15A	0.03 %

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51	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	10 ohm @ 0.35 A	0.24 %
52	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance @ 1kHz (4 Wire)	Using Decade Resistance Box By Direct Method:	100 mohm@ 3.5 A	0.03 %
53	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 300 kHz	Using MPC By Direct Method	32 mV to 329 mV	0.455 % to 0.0003 %
54	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 50 kHz	Using MPC By Direct Method	3.2 V to 329 V	0.0019 % to 0.03 %
55	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz to 8 kHz	Using MPC By Direct Method	300 V to 1000 V	0.03 % to 0.029 %
56	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @10 Hz to 100 kHz	Using MPC By Direct Method:	329 mV to 3.2 V	0.0003 % to 0.019 %
57	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @40 Hz to 20 kHz	Using MPC By Direct Method	1 mV to 32 mV	0.015 % to 0.455 %

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58	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge by comparison method	100 pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27, 0.000056 %
59	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 10 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	1000 pF, Tan Delta 0.01 % to 10 %	0.29 % to 0.27 %, 0.000056 to 0.000
60	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance & Tan Delta @ 2 kV	Using Standard Capacitor with different Tan delta & Tan delta Bridge	Capacitance: 0.5 pF to 10000 pF, TAN Delta: 1 %	0.29 % to 0.27, 0.000056 %
61	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Decade Capacitance Box By Direct Method:	100 pF to 100 µF	1.16 % to 1.7 %
62	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using MPC By Direct Method	220 pF to 3.3 µF	0.004 % to 0.5 %
63	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Harmonics at 50 Hz	Using MPC By Direct Method:	1st Order to 39th Order	0.6 %
64	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Inductance @1 kHz	Using Decade Inductance Box By Direct Method:	100 µH to 10 H	0.38 % to 0.2 %

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65	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor (Phase Angle)	Using MPC By Direct Method:	0.2 PF to 1 UPF (Lag & Lead)	0.0029 PF to 0.0029 PF
66	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	1 A to 10 A	0.034 % to 0.016 %
67	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Power Analyzer by direct Method	1 A to 120 A	0.144 % to 0.7 %
68	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	10 µA to 100 µA	0.08 % to 0.006 %
69	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	100 µA to 100 mA	0.006 % to 0.008 %
70	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ DMM By Direct Method	100 mA to 1 A	0.008 % to 0.034 %
71	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	Using High Voltage Divider with kV Meter By Comparison Method	1 kV to 100 kV	1.63 % to 2.14 %

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72	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power Single Phase	Using Power Analyzer By Direct Method	0.5 W to 500 kW	0.22 % to 0.5 %
73	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC RESISTANCE @ 1 kV	Using Digital Insulation Tester By Direct Method	100 kohm to 10 Tohm	0.92 % to 2.75 %
74	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance 2 wire	Using 6½ DMM By Direct Method	1 mohm to 1 Gohm	0.685 % to 1.66 %
75	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance 4 wire	Using Digital Low Resistance Meter at 600 A DC By Direct Method	1 µohm to 1 mohm	1.43 % to 0.84 %
76	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	1 mV to 10 mV	0.035 %
77	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	10 mV to 10 V	0.035 % to 0.01 %
78	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ DMM By Direct Method	10 V to 1000 V	0.001 %

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79	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1 µA to 190 µA	0.013 % to 0.026 %
80	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1 A to 20 A	0.015 % to 0.017 %
81	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	1.9 mA to 19 mA	0.006 % to 0.0035 %
82	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	10.9 A to 20 A	0.019 % to 0.019 %
83	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	19 mA to 190 mA	0.0035 % to 0.006 %
84	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	190 µA to 1.9 mA	0.026 % to 0.009 %
85	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC By Direct Method	190 mA to 1 A	0.0033 % to 0.015 %

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86	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MPC & 50 Turn Coil By Direct Method:	20 A to 1000 A	0.011 % to 0.1 %
87	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC POWER SINGLE PHASE 1V to 600V & 1mA to 20A	Using MPC By Direct Method	1 mW to 12 kW	0.22 % to 0.17 %
88	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC resistance (2 Wire)	Using MPC By Direct Method	330 kohm to 1100 Mohm	0.0058 % to 1.79 %
89	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	1 µohm@ 200 A	0.61 %
90	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	1 mohm @ 100 A	0.61 %
91	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using MPC By Direct Method:	1 mohm to 330 kohm	0.01 % to 0.0058 %
92	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using Decade Resistance Box By Direct Method	1 ohm @ 1.2 A	0.0042 %

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93	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	10 µohm@200 A	0.87 %
94	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	10 Mohm @ 20 µA	0.007 %
95	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	10 ohm @ 0.1 A	0.0009 %
96	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Shunt By Direct Method	100 µohm @ 200 A to	0.87 %
97	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Standard Resistance	100 ohm @ 0.02 A	0.0012 %
98	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance @ 1 kV	Using Electrical Safety Tester by direct Method	10 kohm to 100 Gohm	0.91 % to 1.51 %
99	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance @ 1 kV	Using Decade Resistance Box By Direct Method:	100 kohm to 10 Tohm	0.07 % to 1.84 %

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100	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	1 kohm@0.035A	0.23 %
101	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	1 mohm@ 50 A	0.162 %
102	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Standard Resistance	1 Ohm@0.5A	0.001 %
103	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	10 kohm@0.015 A	0.23 %
104	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	10 Ohm@0.35A	0.0012 %
105	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 µohm @ 100 A to	0.87 %
106	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 mohm@3.5A	0.0042 %

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107	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4 wire	Using Decade Resistance Box By Direct Method	100 Ohm@0.12A	0.23 %
108	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance 4wire	Using Decade Resistance Box By Direct Method	10 mohm@15 A	0.0042 %
109	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	1 mV to 100 mV	0.003 % to 0.001 %
110	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	1 V to 10 V	0.0007 % to 0.0007 %
111	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	10 V to 1000 V	0.0007 % to 0.0008 %
112	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	100 µV to 1 mV	0.069 % to 0.018 %
113	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method	100 mV to 1 V	0.0005 % to 0.0002 %

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114	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MPC By Direct Method:	100 mV to 1 V	0.001 % to 0.003 %
115	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC VOLTAGE	Using MPC By Direct Method:	33 V to 330 V	0.0012 % to 0.0018 %
116	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method	330 V to 1000 V	0.0018 % to 0.0019 %
117	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MPC By Direct Method:	500 µV to 1 mV	0.001 % to 0.085 %
118	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer Phase Angle Error @ 50 Hz, 5 A to 6000 A / 1 A-5 A	Using Std. CT & Automatic Instrument Transformer Test Set by Comparison Method	120 % to 1 %	0.96 Min to 3.56 Min
119	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer Ratio Error @ 50 Hz, 5 A to 6000 A / 1 A - 5 A	Using Std. CT & Automatic Instrument Transformer Test Set by Comparison Method	120 % to 1 %	0.014 % to 0.064 %

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120	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Phase Angle Error - CT Part (CT-PT Test Set /Analyzer) 1 A & 5 A	Using Std. CT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 1 %	1 min
121	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Phase Angle Error - PT Part (CT-PT Test Set /Analyzer) 63.5 V & 110 V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.8 min
122	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 22kV-33kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	1.85 min
123	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 6.6kV-11kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.41 min
124	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 6.6kV-11kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	3.41 min
125	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 110V-440V-660V-1100V-2200V-3300V//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	2.96 Min

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126	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 110V-440V-660V-1100V-2200V-3300V/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	2.96 min
127	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Phase Angle Error 22kV-33kV/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	1.85 min
128	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 110V-440V-660V-1100V-2200V-3300V/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.073 %
129	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 22kV-33kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
130	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 22kV-33kV/v3//110V/v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
131	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 6.6kV-11kV//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 %

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132	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 6.6kV-11kV/v3//110V /v3	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.08 %
133	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer Ratio Error 110V-440V-660V-1100V-2200V-3300V//110V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.07 %
134	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Ratio Error - CT Part (CT-PT Test Set /Analyzer)(1 A & 5 A)	Using Std. CT & Automatic Instrument Transformer Test Set By Comparison Method	200 % to 1 %	0.03 %
135	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Ratio Error - PT Part (CT-PT Test Set /Analyzer) 63.5 V & 110 V	Using Std. PT & Automatic Instrument Transformer Test Set By Comparison Method	120 % to 80 %	0.02 %
136	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude	Using MPC By Direct Method:	1 mV to 130 V	0.9 % to 0.41 %
137	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Time Marker	Using MPC By Direct Method:	2 ns to 5 s	0.04 % to 0.017 %

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138	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope(Band Width)	Using MPC By Direct Method:	50 kHz to 1100 MHz	8.05 % to 0.87
139	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT-100	Using 8½ DMM by direct method	(-) 200 °C to 800 °C	0.07 °C
140	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B-Type	Using DMM 8½ by direct method	600 °C to 1800 °C	0.6 °C
141	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E-Type	Using DMM 8½ by direct method	(-) 250 °C to 1000 °C	0.08 °C
142	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J-Type	Using DMM 8½ by direct method	(-) 210 °C to 1200 °C	0.06 °C
143	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	Using DMM 8½ by direct method	(-) 200 °C to 1372 °C	0.06 °C
144	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple L-Type	Using DMM 8½ by direct method	(-) 200 °C to 900 °C	0.03 °C

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145	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N-Type	Using DMM 8½ DC by direct method	(-) 200 °C to 1300 °C	0.06 °C
146	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R-Type	Using DMM 8½ DC by direct method	0 °C to 1767 °C	0.1 °C
147	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S-Type	Using DMM 8½ by direct method	0 °C to 1767 °C	0.1 °C
148	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple T type	Using DMM 8½ by direct method	(-) 200 °C to 400 °C	0.08 °C
149	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple U-Type	Using DMM 8½ by direct method	(-) 200 °C to 600 °C	0.09 °C
150	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT-100	Using MPC Calibrator by Direct Method	(-) 200 °C to 800 °C	0.02 °C
151	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B-Type	Using MPC Calibrator by Direct Method	600 °C to 1820 °C	0.52 °C

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152	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1000 °C	0.08 °C
153	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J-Type	Using MPC Calibrator by direct Method	(-) 210 °C to 1200 °C	0.06 °C
154	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1350 °C	0.05 °C
155	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple L-Type	Using MPC Calibrator by direct Method	(-) 200 °C to 900 °C	0.15 °C
156	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	Using MPC Calibrator by direct Method	(-) 200 °C to 1300 °C	0.08 °C
157	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R-Type	Using MPC Calibrator by direct Method	0 °C to 1750 °C	0.07 °C
158	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	Using MPC Calibrator by Direct Method	0 °C to 1750 °C	0.09 °C

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159	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple T type	Using MPC Calibrator by direct Method	(-) 200 °C to 400 °C	0.15 °C
160	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple U Type	Using MPC Calibrator by direct Method	(-) 200 °C to 600 °C	0.19 °C
161	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter By Direct Method	1 Hz to 1.1 GHz	0.000012 % to 0.000025 %
162	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Period	Using Frequency Counter By Direct Method	2 ns to 5 s	0.11 % to 0.1 %
163	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison method	5 s to 86400 s	0.61 s to 0.84 s
164	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using MFC By Direct Method:	10 Hz to 1 MHz	0.0027 % to 0.228 %
165	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using MPC By Direct Method:	10 Hz to 1.1 GHz	0.001 % to 0.94 %

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166	MECHANICAL-ACCELERATION AND SPEED	RPM of Centrifuge	Using Tachometer By Comparison Method	150 rpm to 8000 rpm	1 %
167	MECHANICAL-ACCELERATION AND SPEED	RPM of Centrifuge/VMC Machine	Using Tachometer By Comparison Method	150 rpm to 8000 rpm	0.49 %
168	MECHANICAL-ACOUSTICS	Sound Level Meter	Using Sound Level Calibrator By Comparison method	114 dB @1 kHz	0.7 dB
169	MECHANICAL-ACOUSTICS	Sound Level Meter	Using Sound Level Calibrator By Comparison method	94 dB @ 1 kHz	0.7 dB
170	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Electronic Height Gauge - Linear (L.C.: 0.1 µm)	Using Check Master & Granite Square by comparison method	0 to 600 mm	4.8 µm
171	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Electronic Height Gauge- Squareness (L.C.: 0.1 µm)	Using Check Master & Granite Square by comparison method	0 to 600 mm	12.07 µm
172	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Tape & Scale Calibrator	By Using length Bar By comparison method	0 to 1000 mm	9 µm
173	MECHANICAL-PRESSURE INDICATING DEVICES	Dial and Digital Vacuum Gauge/Indicator	Using Digital Vacuum Gauge with Hand Pump by comparison method Based on DKD-R-6-1	(-) 0.88 bar to (-) 0.1 bar	0.0083 bar
174	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Gauge/Indicator	Using Digital Pressure Gauge with Hand Pump By comparison Method as per DKD R6-1	0 to 30 bar	0.008 bar

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175	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Transmitter/Switch/ Transducer/Indicator	Using Digital Pressure Gauge with Hand Pump, 6½ DMM By comparison Method as per DKD-R-6-1	0 to 30 bar	0.009 bar
176	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity sensor with indicator of Dry cabinet, Dehumidifier (Single Position)	Using Standard Humidity & Temperature Indicator with sensor by Comparison method	10 % rh to 95 % rh @ 10 °C to 60 °C	1.33 % rh
177	THERMAL-TEMPERATURE	Freezer (multiposition)	Using Standard RTD with Multi Channel Data Logger (minimum 9 sensor) by multi position method	(-) 80 °C to 25 °C	3.26 °C
178	THERMAL-TEMPERATURE	Furnace / Muffle Furnace (Multiposition)	Using Standard N Type thermocouple with Multi Channel Data Logger (Minimum 9 Sensor) by multi position method	350 °C to 1200 °C	4.22 °C
179	THERMAL-TEMPERATURE	Liquid in Glass Thermometer	Using SPRT Sensor with indicator, Oil Bath by Comparison Method	35 °C to 250 °C	0.61 °C
180	THERMAL-TEMPERATURE	Oven /Autoclave (Non medical purpose only) / Environmental Chamber (Multiposition)	Using Standard RTD with Multi Channel Data Logger (Minimum 9 sensor) by Multi-position method	30 °C to 350 °C	3.34 °C

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181	THERMAL-TEMPERATURE	Refrigerator (multiposition)	Using Standard RTD with Multi Channel Data Logger by (Minimum 9 sensor) by multi position method	(-) 10 °C to 10 °C	0.027 °C
182	THERMAL-TEMPERATURE	RTD's with or without indicator & RTD Based Digital Thermometer, TC & TC Based Indicators/ Temperature Transmitter / Temperature Gauge	Using SPRT Sensor with indicator, Dry Bath & 6½ DMM by Comparison Method	(-) 25 °C to 100 °C	0.06 °C
183	THERMAL-TEMPERATURE	RTD's with or without indicator & RTD Based Digital Thermometer, TC & TC Based Indicators/ Temperature Transmitter / Temperature Gauge	Using SPRT Sensor with indicator, Dry Bath, 6½ DMM by Comparison Method	100 °C to 660 °C	0.62 °C
184	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Furnace / Dry Bath /Muffle Furnace (Single Position)	Using Standard R Type thermocouple with indicator by comparison method	350 °C to 1200 °C	2.9 °C
185	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Oven/ Autoclave (non medical purpose only)/ Dry Bath / Oil Bath (Single Position)	Using Standard PRT sensor with indicator by comparison method	30 °C to 350 °C	0.96 °C

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186	THERMAL-TEMPERATURE	Temperature indicator with Sensor of Refrigerator/ Freezer/ Dry Bath/ Low temperature Bath/ Incubators(non medical purpose only) (Single position)	Using Standard PRT & indicator by comparison method	(-) 80 °C to 30 °C	0.49 °C
187	THERMAL-TEMPERATURE	Thermocouple /Temperature Sensor with or without Indicators/ Temperature gauge/ Temperature Transmitter	Using Standard S Type Thermocouple with indicator , 6½ DMM, Dry Well Bath by comparison Method	600 °C to 1200 °C	1.72 °C

*** CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.**